



Construction Solicitation #6662,2 (BID)

Recirculation Bridge Replacement

Specification Number:800480

Required for use by: DEPT OF AVIATION

Bid/Proposal Submittal Date and Time: 11:00 AM Central Time, 26-MAR-2019

Deadline for Questions: 04:00 PM Central Time, 12-MAR-2019

Buyer: WADDELL, NICHOLAS

Email Address:

Phone Number: 3127421341

Pre-Solicitation Conference Date and Time: 12:00 PM Central Time, 05-MAR-2019

Pre-Solicitation Conference Location: O'Hare AAB Building 10510 W. Zemke Rd Chicago, IL 60666, 2nd floor, Conf. Rm. 1, Door 2081

Site Visit Date & Time: N/A

Site Visit Location: N/A

Please submit your response to:

<http://www.cityofchicago.org/eProcurement>
iSupplier vendor portal registration is required.
Allow 3 business days to complete registration.

RAHM EMANUEL
MAYOR

SHANNON E. ANDREWS
CHIEF PROCUREMENT OFFICER

Specification Number: 800480

Type of Funding: BOND

Title: 800480: Recirculation Bridge Replacement

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1 Header Information

1.1 General Information

Title **800480: Recirculation Bridge Replacement**
 Description **Recirculation Bridge Replacement**
 Amendment Date **14-MAR-2019 16:20:38**
 Amendment Description **Clarification #2 The version of the document you are reading, RFQ 6662 is characterized by the eProcurement system as a change, but is actually the first authorized version of the document. The City has not received any requests for clarification or vendor questions and is not making any changes to the RFP at this time. Nevertheless, to satisfy an eProcurement system requirement, the system will require you to acknowledge this clarification when you submit your bid response.**
 Preview Date **22-FEB-2019 09:10:55** Open Date **22-FEB-2019 09:10:55**
 Close Date **11:00 AM Central Time, 26-MAR-2019** Award Date **Not Specified**
 Time Zone **Central Time** Buyer **WADDELL, NICHOLAS**
 Quote Style **Sealed** Email
 Event **Construction** Outcome **Construction Blanket Agreement**

Note The version of the document you are reading, RFQ 6662,2 is characterized by the eProcurement system as a change, but is actually the first authorized version of the document. The City has not received any requests for clarification or vendor questions and is not making any changes to the bid at this time. Nevertheless, to satisfy an eProcurement system requirement, the system will require you to acknowledge this clarification when you submit your proposal response.

1.2 Terms

Effective Start Date **Not Specified** Effective End Date **Not Specified**
 Ship-To Address **085-2015 O'HARE 11601 W. TOUHY Chicago, IL 60666 United States** Bill-To Address **085-2015 O'HARE 11601 W. TOUHY Chicago, IL 60666 United States**
 Payment Terms **IMMEDIATE** Carrier
 FOB Freight Terms
 Total Agreement Amount (USD) **Not Specified** Minimum Release Amount (USD) **Not Specified**

1.3 Requirements

| KEY SOLICITATION PARAMETERS | |
|--|-----------------------------|
| BID DEPOSIT: 2% of the Contract Base Bid | |
| Type | No Response Required |
| PERFORMANCE BOND: 100% of the Contract Value | |
| Type | No Response Required |
| CITY BUSINESS PREFERENCE: Yes | |
| Type | No Response Required |
| LOCAL MANUFACTURE PREFERENCE: Yes | |
| Type | No Response Required |
| ALTERNATIVE FUEL VEHICLE PREFERENCE: Yes | |

| KEY SOLICITATION PARAMETERS |
|--|
| Type No Response Required CONTRACT SPECIFIC GOALS: 28.36% MBE and 6.26% WBE |
| Type No Response Required FUNDING SOURCE: Bonds |
| Type No Response Required FUND NUMBER: 016.0582.0852015.8016.220540.0000.H801605E |
| Type No Response Required DPS UNIT: Aviation |
| Type No Response Required REVERSE AUCTION: No |
| Type No Response Required DRAWINGS: 110 |
| Type No Response Required Value Type Numeric Value only MAPS: 1 |
| Type No Response Required Value Type Numeric Value only PRE-BID/PRE-PROPOSAL CONFERENCE: Yes |
| Type No Response Required |
| BIDDER EXCEPTIONS |
| Any deviations from or exceptions to any provisions or requirements of the bidding documents, including but not limited to the specifications of the goods and/or services to be provided, must be noted here or in an attachment, with the exact nature of the change outlined in sufficient detail, and as provided in the contract terms and conditions "Trade Names and Substitutions," as applicable. Bidder must provide the reason for which deviations were made. Failure of a bidder to comply with the terms of this paragraph may be cause for rejection of its bid. |
| Type Optional Provide your answer below |
| Enter the EDS number from your EDS Certificate and attach the certificate. |
| Value Type Numeric Value only Provide your answer below |

| BIDDER EXCEPTIONS |
|--|
| COMMODITIES/WORK SERVICES/HEAVY EQUIPMENT/SMALL ORDERS/CONSTRUCTION/JOC CHECKLIST |
| This is a checklist of all supporting documents that must be attached to your bid response. Attach all documents specified below. After attaching, click "YES" to indicate that the attachment was completed. |
| Type No Response Required |
| - Bid Form properly completed. - (Construction) |
| Circle one from the response values below: YES NO |
| - Award Criteria Determination completed. - (Construction) |
| Circle one from the response values below: YES NO |
| - Schedule of Prices, completed and totaled. - (Construction) |
| Circle one from the response values below: YES NO |
| - Proposal Page completed, signed and notarized - (ALL) |
| Circle one from the response values below: YES NO |
| - Proposal To Be Completed By a Corporation - (ALL) |
| Circle one from the response values below: YES NO |
| - Proposal To Be Completed By a Partnership - (ALL) |
| Circle one from the response values below: YES NO |
| - Proposal To Be Completed By a Joint Venture - (ALL) |
| Circle one from the response values below: YES NO |
| - Proposal To Be Completed By a Sole Proprietor - (ALL) |
| Circle one from the response values below: YES NO |
| - Bid Execution Page - (ALL) |
| Circle one from the response values below: YES |

| COMMODITIES/WORK SERVICES/HEAVY EQUIPMENT/SMALL ORDERS/CONSTRUCTION/JOC CHECKLIST |
|--|
| NO |
| - Performance Bond (Construction) |
| Circle one from the response values below: YES NO |
| - Request for a reduction or waiver of MBE/WBE goals - (ALL) |
| Circle one from the response values below: YES NO |
| - Certificate of Filing of Economic Disclosure Statement and Affidavit (EDS) - (ALL) |
| Circle one from the response values below: YES NO |
| - Certificate of Insurance |
| Circle one from the response values below: YES NO |
| Bid incentive/preference affidavit(s) |
| Type No Response Required |
| - Local Manufacture Affidavit - (ALL) |
| Circle one from the response values below: YES NO |
| - Chicago Business Affidavit - (ALL) |
| Circle one from the response values below: YES NO |
| - Small Business/Veterans Preference Joint Venture - (ALL) |
| Circle one from the response values below: YES NO |
| - Alternatively Powered Vehicles affidavit - (ALL) |
| Circle one from the response values below: YES NO |
| - Manuals, Certificates, Applications(if required) |
| Circle one from the response values below: YES NO |
| - Bidder Contact Information - (ALL) |
| Circle one from the response values below: |

| COMMODITIES/WORK SERVICES/HEAVY EQUIPMENT/SMALL ORDERS/CONSTRUCTION/JOC CHECKLIST |
|--|
| YES NO |
| - Bidder qualifications and/or certifications, permits, licenses, vehicle stickers, etc. (if required) Circle one from the response values below: YES NO |
| - Affidavit of Uncompleted Work (Construction) Circle one from the response values below: YES NO |
| - Affidavit of Availability (Construction) Circle one from the response values below: YES NO |
| - Department of Procurement Services Bid Bond (Construction) Circle one from the response values below: YES NO |
| - Contractor's Affidavit Regarding Removal of All Waster Materials and Identification of all Legal Dump Sites (Construction) Circle one from the response values below: YES NO |
| - Schedule AP: Letter of Intent to Hire/Sponsor Union Apprentices (Construction) Circle one from the response values below: YES NO |
| - Exhibit D, DBE Requirement for Bidder/Proposer List completed (Construction) Circle one from the response values below: YES NO |
| M/WBE DOCUMENTS Type No Response Required |
| - Schedule B - MBE/WBE Affidavit of Joint Venture - (ALL) Circle one from the response values below: YES NO |
| - Schedule C-1 - -- MBE/WBE Letter of Intent To Perform As a Subcontractor or Supplier - (ALL) Circle one from the response values below: YES NO |
| -Schedule D-1 - Compliance Plan Regarding MBE and WBE Utilization - (ALL) |

| |
|--|
| <p>COMMODITIES/WORK SERVICES/HEAVY EQUIPMENT/SMALL ORDERS/CONSTRUCTION/JOC CHECKLIST</p> |
| <p>.....</p> <p>Circle one from the response values below: YES NO</p> |
| <p>- Schedule F - Report of Subcontractor Solicitations - (Construction)</p> <p>.....</p> <p>Circle one from the response values below: YES NO</p> |
| <p>- Schedule H -Documentation of Good Faith Efforts (Construction)</p> <p>.....</p> <p>Circle one from the response values below: YES NO</p> |
| <p>- Request for Full or Partial Waiver - (ALL)</p> <p>.....</p> <p>Circle one from the response values below: YES NO</p> |
| <p>- Letters of Certification for all M/WBE's - (ALL)</p> <p>.....</p> <p>Circle one from the response values below: YES NO</p> |
| <p>TARGET MARKET MBE/WBE COMPLIANCE PLAN</p> |
| <p>.....</p> <p>Type No Response Required</p> |
| <p>- Current Letter of Certification from the City of Chicago or Cook County for Bidder and any other MBE/WBE participant(s)</p> <p>.....</p> <p>Circle one from the response values below: YES NO</p> |
| <p>- Schedule B-2 - (Joint Venture)</p> <p>.....</p> <p>Circle one from the response values below: YES NO</p> |
| <p>- Schedule C-2</p> <p>.....</p> <p>Circle one from the response values below: YES NO</p> |
| <p>- Schedule D-2</p> <p>.....</p> <p>Circle one from the response values below: YES NO</p> |
| <p>Award Criteria Determination - Canvassing Formula</p> |
| <p>LINE 1. Base Bid, in Figures</p> <p>.....</p> |

| Award Criteria Determination - Canvassing Formula |
|--|
| Value Type Numeric Value only Provide your answer below |
| LINE2. Percentage of the total journey worker hours that the Contractor proposes to be worked by minority Journey workers during construction of the Project. (Maximum figure .70) Supplier needs to calculate and enter manually Value Type Numeric Value only Provide your answer below |
| LINE3. Multiply Line 2 by Line 1 by 0.04 Supplier needs to calculate and enter manually Value Type Numeric Value only Provide your answer below |
| LINE4. Percentage of the total Apprentice hours that the Contractor proposes to be worked by minority Apprentices during construction of the project. (Maximum figure .70) Supplier needs to calculate and enter manually Value Type Numeric Value only Provide your answer below |
| LINE5. Multiply Line 4 by Line 1 by 0.03 Supplier needs to calculate and enter manually Value Type Numeric Value only Provide your answer below |

| Award Criteria Determination - Canvassing Formula |
|---|
| <p>LINE6. Percentage of the total Laborer hours that the Contractor proposes to be worked by minority Laborers during construction of the project. (Maximum figure .70) Supplier needs to calculate and enter manually</p> <p>.....</p> <p>Value Type Numeric Value only</p> <p>.....</p> <p>Provide your answer below</p> |
| <p>LINE7. Multiply Line 6 by Line 1 by .01 Supplier needs to calculate and enter manually</p> <p>.....</p> <p>Value Type Numeric Value only</p> <p>.....</p> <p>Provide your answer below</p> |
| <p>LINE8. Percentage of the total Journey worker hours that the Contractor proposes to be worked by female Journey workers during construction of the project. (Maximum figure .15) Supplier needs to calculate and enter manually</p> <p>.....</p> <p>Value Type Numeric Value only</p> <p>.....</p> <p>Provide your answer below</p> |
| <p>LINE9. Multiply Line 8 by Line 1 by 0.04 Supplier needs to calculate and enter manually</p> <p>.....</p> <p>Value Type Numeric Value only</p> <p>.....</p> <p>Provide your answer below</p> |
| <p>LINE10. Percentage of the total Apprentice hours that the Contractor proposes to be worked by female Apprentices during construction of the project. (Maximum figure .15) Supplier needs to calculate and enter manually</p> |

| Award Criteria Determination - Canvassing Formula |
|--|
| Value Type Numeric Value only Provide your answer below |
| LINE11. Multiply Line 10 by Line 1 by 0.03 Supplier needs to calculate and enter manually Value Type Numeric Value only Provide your answer below |
| LINE12. Percentage of the total Laborer hours that the Contractor proposes to be worked by female Laborers during construction of the project. (Maximum figure .15) Supplier needs to calculate and enter manually Value Type Numeric Value only Provide your answer below |
| LINE13. Multiply Line 12 by Line 1 by 0.01 Supplier needs to calculate and enter manually Value Type Numeric Value only Provide your answer below |
| LINE14. Summation of Lines 3, 5, 7, 9, 11, and 13 Supplier needs to calculate and enter manually Value Type Numeric Value only Provide your answer below |

| Award Criteria Determination - Canvassing Formula |
|---|
| LINE15. Subtract Line 14 from Line 1 = Award Criteria Figure Supplier needs to calculate and enter manually |
| |
| Value Type Numeric Value only |
| |
| Provide your answer below |
| |

1.4 Attachments

| Name | Data Type | Description |
|--|-----------|--------------------------------------|
| ATTACHMENT 01: INSTRUCTIONS AND EXECUTION DOCUMENTS | File | INSTRUCTIONS AND EXECUTION DOCUMENTS |
| ATTACHMENT 02: GENERAL CONDITIONS | File | GENERAL CONDITIONS |
| ATTACHMENT 03: TECHNICAL SPECIFICATIONS | File | TECHNICAL SPECIFICATIONS |
| ATTACHMENT 04: DRAWINGS | File | DRAWINGS |
| ATTACHMENT 05: Read Me Text File | File | Read Me Text File |
| ATTACHMENT 06: Construction Safety Manuel | File | Construction Safety Manuel |

1.5 Response Rules

- Solicitation is restricted to invited suppliers
- Suppliers are allowed to view other suppliers' contract terms, notes and attachments
- Suppliers are allowed to respond to selected lines
- Suppliers are allowed to provide multiple responses
- Buyer may close the solicitation before the Close Date
- Buyer may manually extend the solicitation while it is open

2 Price Schedule**2.1 Line Information**

Display Rank As **No indicator displayed**
 Ranking **Price Only**
 Cost Factors **None**

| Line | Item, Rev / Job | Target Quantity | Unit | Unit Price | Amount |
|---|-----------------|-----------------|-----------|------------|--------|
| 1 PAY ITEM NO. M-101-5.01: MOBILIZATION (MUST NOT EXCEED 6.00% OF THE TOTAL BASE BID) | | 1 | Lump Sum | | |
| 2 PAY ITEM NO. M-101-5.02: CLOSEOUT DOCUMENTATION | | 1 | Lump Sum | | |
| 3 PAY ITEM NO. 01010-5.01: ALLOWANCE FOR WORKFORCE DEVELOPMENT | | 1 | Allowance | | |
| 4 PAY ITEM NO. 01010-5.02: ALLOWANCE FOR UNFORSEEN UTILITY INVESTIGATION AND CONFLICTS | | 1 | Allowance | | |
| 5 PAY ITEM NO. 01010-5.03: ALLOWANCE FOR OPERATION IMPACTS (INCLUDING LANDSIDE OPERATIONS/AIRLINE/TENANT) | | 1 | Allowance | | |
| 6 PAY ITEM NO. 01502-5.01: TRAFFIC CONTROL AND PROTECTION | | 1 | Lump Sum | | |
| 7 PAY ITEM NO. 01502-5.02: FURNISH, INSTALL, AND REMOVE TEMPORARY CONCRETE BARRIER | | 1,129 | Foot | | |
| 8 PAY ITEM NO. 01502-5.03: RELOCATE TEMPORARY CONCRETE BARRIER | | 2,224 | Foot | | |
| 9 PAY ITEM NO. | | 7 | Each | | |

Specification Number: 800480

Type of Funding: BOND

Title: 800480: Recirculation Bridge Replacement

| Line | Item, Rev / Job | Target Quantity | Unit | Unit Price | Amount |
|---|-----------------|-----------------|-------------|------------|--------|
| 01502A-5.01: | | | | | |
| IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2 | | | | | |
| 10 PAY ITEM NO. 01502A-5.02: | | 7 | Each | | |
| IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2 | | | | | |
| 11 PAY ITEM NO. 02074-5.01: REMOVE PCC PAVEMENT | | 622 | Square Yard | | |
| 12 PAY ITEM NO. 02074-5.02: REMOVE TEMPORARY PAVEMENT | | 486 | Square Yard | | |
| 13 PAY ITEM NO. 02074-5.03: REMOVE MEDIAN | | 5,418 | Square Foot | | |
| 14 PAY ITEM NO. 02220A-5.01: REMOVAL OF EXISTING STRUCTURES | | 1 | Each | | |
| 15 PAY ITEM NO. 02220B-5.01: CONCRETE REMOVAL | | 17.8 | Cubic Yard | | |
| 16 PAY ITEM NO. 02220C-5.01: PROTECTIVE SHIELD | | 1,185 | Square Yard | | |
| 17 PAY ITEM NO. 02255A-5.01: TEMPORARY EARTH RETENTION SYSTEM | | 315 | Square Foot | | |
| 18 PAY ITEM NO. 02315A-5.01: STRUCTURE EXCAVATION | | 202 | Cubic Yard | | |
| 19 PAY ITEM NO. 02601-5.01: VITRIFIED CLAY PIPE (VCP), 8-INCH, EXTRA STRENGTH, TYPE 2 | | 199 | Foot | | |
| 20 PAY ITEM NO. 02601-5.02: VITRIFIED CLAY | | 63 | Foot | | |

| Line | Item, Rev / Job | Target Quantity | Unit | Unit Price | Amount |
|------|--|-----------------|-------------|------------|--------|
| | PIPE (VCP), 12-INCH, EXTRA STRENGTH, TYPE 2 | | | | |
| | 21 PAY ITEM NO. 02601A-5.01: DRAINAGE SCUPPERS, DS-12 | 4 | Each | | |
| | 22 PAY ITEM NO. 02601B-5.01: DRAINAGE SYSTEM | 1 | Lump Sum | | |
| | 23 PAY ITEM NO. 02601C-5.01: GEOCOMPOSITE WALL DRAIN | 39 | Square Yard | | |
| | 24 PAY ITEM NO. 02621-5.01: MANHOLE TYPE A, 3-FOOT DIA (NON-AIRCRAFT LOADING) | 2 | Each | | |
| | 25 PAY ITEM NO. 02621-5.02: INSPECTION HOLE | 3 | Each | | |
| | 26 PAY ITEM NO. 02621-5.03: CATCH BASIN TYPE A, 4-FOOT DIA (NON-AIRCRAFT LOADING) | 4 | Each | | |
| | 27 PAY ITEM NO. 02705-5.01: ABANDON PIPE IN-PLACE, GROUT SOLID | 1 | Cubic Yard | | |
| | 28 PAY ITEM NO. 02714-5.01: PORTLAND CEMENT CONCRETE PAVEMENT FULL DEPTH | 622 | Square Yard | | |
| | 29 PAY ITEM NO. 02714-5.02: PCC BOOTH ISLAND | 345 | Square Foot | | |
| | 30 PAY ITEM NO. 02714-5.03: REMOVE AND REPLACE, PCC REINFORCE SIDEWALK, FULL DEPTH | 474 | Square Foot | | |
| | 31 PAY ITEM NO. 02714-5.04: COMBINATION CURB AND GUTTER, TYPE M-6.18 | 87 | Foot | | |
| | 32 PAY ITEM NO. 02714A-5.01: | 50 | Foot | | |

| Line | Item, Rev / Job | Target Quantity | Unit | Unit Price | Amount |
|--|-----------------|-----------------|-------------|------------|--------|
| CONCRETE BARRIER, DOUBLE FACE, 32 INCH HEIGHT | | | | | |
| 33 PAY ITEM NO. 02714A-5.02: CONCRETE BARRIER BASE | | 50 | Foot | | |
| 34 PAY ITEM NO. 02720-5.01: AGGREGATE BASE COURSE, CA-6 | | 244 | Cubic Yard | | |
| 35 PAY ITEM NO. 02720A-5.01: GRANULAR BACKFILL FOR STRUCTURES | | 30 | Cubic Yard | | |
| 36 PAY ITEM NO. 02745A-5.01: TEMPORARY PAVEMENT | | 486 | Square Yard | | |
| 37 PAY ITEM NO. 02783-5.01: TEMPORARY PAVEMENT MARKING LINE, 4-INCH | | 486 | Foot | | |
| 38 PAY ITEM NO. 02783-5.02: TEMPORARY PAVEMENT MARKING LINE, 6-INCH | | 6,522 | Foot | | |
| 39 PAY ITEM NO. 02783-5.03: TEMPORARY PAVEMENT MARKING LINE, 24-INCH | | 71 | Foot | | |
| 40 PAY ITEM NO. 02783-5.04: TEMPORARY PAVEMENT MARKING LINE, REMOVAL | | 4,000 | Square Foot | | |
| 41 PAY ITEM NO. 02783-5.05: PAVEMENT MARKING LINE, EPOXY, 4-INCH | | 1,253 | Foot | | |
| 42 PAY ITEM NO. 02783-5.06: PAVEMENT MARKING LINE, EPOXY, 6-INCH | | 3,259 | Foot | | |
| 43 PAY ITEM NO. 02783-5.07: | | 503 | Foot | | |

| Line | Item, Rev / Job | Target Quantity | Unit | Unit Price | Amount |
|---|-----------------|-----------------|-------------|------------|--------|
| PAVEMENT MARKING LINE, EPOXY, 12-INCH | | | | | |
| 44 PAY ITEM NO. 02783-5.08: PAVEMENT MARKING LINE, EPOXY, 24-INCH | | 15 | Foot | | |
| 45 PAY ITEM NO. 02783-5.09: PAVEMENT MARKING, LETTERS AND SYMBOLS, EPOXY | | 50 | Square Foot | | |
| 46 PAY ITEM NO. 02839A-5.01: REMOVE AND RE-ERECT OVERHEAD SIGN SUPERSTRUCTURE - BRIDGE MOUNTED, 10' X 24' | | 1 | Each | | |
| 47 PAY ITEM NO. 02839A-5.02: REMOVE AND RE-ERECT OVERHEAD SIGN SUPERSTRUCTURE - BRIDGE MOUNTED, 10' X 58' | | 1 | Each | | |
| 48 PAY ITEM NO. 02839B-5.01: OVERHEAD SIGN SUPERSTRUCTURE - BRIDGE MOUNTED | | 82 | Foot | | |
| 49 PAY ITEM NO. 02875-5.01: STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS | | 344 | Foot | | |
| 50 PAY ITEM NO. 02875-5.02: TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) | | 1 | Each | | |
| 51 PAY ITEM NO. 02875-5.03: TRAFFIC BARRIER TERMINAL, TYPE 2 | | 1 | Each | | |
| 52 PAY ITEM NO. 02875-5.04: TRAFFIC BARRIER TERMINAL, TYPE 5 | | 1 | Each | | |
| 53 PAY ITEM NO. 02875-5.05: TRAFFIC BARRIER TERMINAL, TYPE 6 | | 1 | Each | | |

| Line | Item, Rev / Job | Target Quantity | Unit | Unit Price | Amount |
|------|---|-----------------|-------------|------------|--------|
| 54 | PAY ITEM NO. 02920-5.01: TOPSOILING | 571 | Square Yard | | |
| 55 | PAY ITEM NO. 02930-5.01: TREE, HONEYLOCUST, 4-INCH CAL. | 5 | Each | | |
| 56 | PAY ITEM NO. 02930-5.02: PENSTEMON HUSKER'S RED, #1 POT (1 GAL.) | 315 | Each | | |
| 57 | PAY ITEM NO. 02930-5.03: STELLA DE ORO DAYLILY, #1 POT (1 GAL.) | 790 | Each | | |
| 58 | PAY ITEM NO. 02930-5.04: WELCOMING TRUMPETS MIX DAFFODILS | 950 | Each | | |
| 59 | PAY ITEM NO. 02931-5.01: SEED, PERMANENT | 571 | Square Yard | | |
| 60 | PAY ITEM NO. 02970-5.01: REMOVE AND REPLACE IRRIGATION SYSTEM | 1 | Lump Sum | | |
| 61 | PAY ITEM NO. 03200A-5.01: REINFORCEMENT BARS, EPOXY COATED | 110,770 | Pound | | |
| 62 | PAY ITEM NO. 03200B-5.01: BAR SPLICERS | 740 | Each | | |
| 63 | PAY ITEM NO. 03300A-5.01: CONCRETE STRUCTURES | 150.4 | Cubic Yard | | |
| 64 | PAY ITEM NO. 03300B-5.01: CONCRETE SUPERSTRUCTURE | 318.8 | Cubic Yard | | |
| 65 | PAY ITEM NO. 03300C-5.01: CONCRETE SUPERSTRUCTURE (APPROACH SLAB) | 45.9 | Cubic Yard | | |
| 66 | PAY ITEM NO. 03300D-5.01: BRIDGE DECK GROOVING | 990 | Square Yard | | |
| 67 | PAY ITEM NO. 03300E-5.01: CONCRETE SEALER | 3,484 | Square Foot | | |
| 68 | PAY ITEM NO. | 1,315 | Square | | |

Specification Number: 800480

Type of Funding: BOND

Title: 800480: Recirculation Bridge Replacement

| Line | Item, Rev / Job | Target Quantity | Unit | Unit Price | Amount |
|--|-----------------|-----------------|-------------|------------|--------|
| 03300F-5.01: PROTECTIVE COAT | | | Yard | | |
| 69 PAY ITEM NO. 05120A-5.01: FURNISHING AND ERECTING STRUCTURAL STEEL | | 1 | Lump Sum | | |
| 70 PAY ITEM NO. 05120B-5.01: STUD SHEAR CONNECTORS | | 9,666 | Each | | |
| 71 PAY ITEM NO. 05500A-5.01: ALUMINUM RAILING, TYPE L | | 214 | Foot | | |
| 72 PAY ITEM NO. 05500B-5.01: NAME PLATES | | 1 | Each | | |
| 73 PAY ITEM NO. 05800A-5.01: ANCHOR BOLTS, 1" | | 72 | Each | | |
| 74 PAY ITEM NO. 05800B-5.01: ELASTOMERIC BEARING ASSEMBLY, TYPE I | | 18 | Each | | |
| 75 PAY ITEM NO. 05800C-5.01: PREFORMED JOINT STRIP SEAL | | 90 | Foot | | |
| 76 PAY ITEM NO. 10462-5.01: BOLLARD | | 7 | Each | | |
| 77 PAY ITEM NO. 16010-5.01: REMOVAL OF LIGHTNING UNIT, NO SALVAGE | | 43 | Each | | |
| 78 PAY ITEM NO. 16010-5.02: REMOVE AND REINSTALL VIDEO CAMERA AND EQUIPMENT | | 2 | Each | | |
| 79 PAY ITEM NO. 16010-5.03: REMOVE AND REINSTALL SIGN, MESSAGE, ELECTRICALLY ILLUMINATED, BRACKET MOUNTED | | 5 | Each | | |
| 80 PAY ITEM NO. 16100-5.01: AUTOMATED GATE SYSTEM - DISCONNECT, | | 1 | Lump Sum | | |

| Line | Item, Rev / Job | Target Quantity | Unit | Unit Price | Amount |
|------|--|-----------------|----------|------------|--------|
| | RELOCATE AND INSTALL | | | | |
| | 81 PAY ITEM NO. 16100-5.02: CONDUIT ATTACHED TO STRUCTURE, 1" DIA., PVC COATED GALVANIZED STEEL | 840 | Foot | | |
| | 82 PAY ITEM NO. 16100-5.03: JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE | 58 | Each | | |
| | 83 PAY ITEM NO. 16100-5.04: REMOVE CONDUIT ATTACHED TO STRUCTURE | 840 | Foot | | |
| | 84 PAY ITEM NO. 16100-5.05: FLEXIBLE LIQUID TIGHT SS CONDUIT, 1" DIA, 6' LENGTH | 42 | Each | | |
| | 85 PAY ITEM NO. 16100-5.06: REMOVAL AND REPLACEMENT OF EXISTING COMMUNICATION WIRING | 8,400 | Foot | | |
| | 86 PAY ITEM NO. 16100-5.07: REMOVAL AND REPLACEMENT OF EXISTING DUCT BANK | 100 | Foot | | |
| | 87 PAY ITEM NO. 16100-5.08: REMOVAL AND RELOCATION OF EXISTING STAINLESS STEEL ENCLOSURE AT PIER 103 | 1 | Lump Sum | | |
| | 88 PAY ITEM NO. 16100-5.09: INSTALLATION OF NEW EXPRESS EXIT EQUIPMENT AND WIRING | 1 | Lump Sum | | |
| | 89 PAY ITEM NO. 16123-5.01: REMOVAL OF CABLE IN CONDUIT | 5,160 | Foot | | |

| Line | Item, Rev / Job | Target Quantity | Unit | Unit Price | Amount |
|------|--|-----------------|----------------|------------|--------|
| 90 | PAY ITEM NO. 16123-5.02: #10 AWG XHHW-2 WIRE | 5,160 | Foot | | |
| 91 | PAY ITEM NO. 16123-5.03: #8 AWG XHHW-2 WIRE | 4,200 | Foot | | |
| 92 | PAY ITEM NO. 16520-5.01: UNDERPASS LED LIGHT FIXTURE | 36 | Each | | |
| 93 | PAY ITEM NO. 16520-5.02: SIGNAGE LED LIGHT FIXTURE | 7 | Each | | |
| 94 | PAY ITEM NO. L-115-5.01: ELECTRICAL HANDHOLES | 2 | Each | | |
| 95 | PAY ITEM NO. P-151-5.01: TREE REMOVAL, 6 INCHES TO 18 INCHES, BUTT DIAMETER | 5 | Each | | |
| 96 | PAY ITEM NO. P-156-5.01: INLET PROTECTION | 16 | Each | | |
| 97 | PAY ITEM NO. P-156-5.02: EROSION CONTROL BLANKET | 199 | Square Yard | | |
| 98 | PAY ITEM NO. X-100-5.01: REMOVE PCC BOOTH ISLAND | 345 | Square Foot | | |
| 99 | PAY ITEM NO. X-100-5.02: REMOVE CONCRETE BARRIER AND BASE | 50 | Foot | | |
| 100 | PAY ITEM NO. X-100-5.03: REMOVE GUARDRAIL | 344 | Foot | | |
| 101 | PAY ITEM NO. X-100-5.04: REMOVE BOOTH #41, SALVAGE AND RETURN TO OWNER | 1 | Lump Sum | | |
| 102 | PAY ITEM NO. X-100-5.05: REMOVE STORM SEWER STRUCTURE | 4 | Each | | |
| 103 | PAY ITEM NO. X-100-5.06: REMOVE PAVEMENT MARKINGS | 505 | Square Foot | | |
| 104 | PAY ITEM NO. X-100-5.07: REMOVE CURB AND GUTTER | 87 | Foot | | |

Specification Number: 800480

Type of Funding: BOND

Title: 800480: Recirculation Bridge Replacement

2.2 Line Details**2.2.1 Line 1 PAY ITEM NO. M-101-5.01: MOBILIZATION (MUST NOT EXCEED 6.00% OF THE TOTAL BASE BID)**

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.2 Line 2 PAY ITEM NO. M-101-5.02: CLOSEOUT DOCUMENTATION

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | 150,000 |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.3 Line 3 PAY ITEM NO. 01010-5.01: ALLOWANCE FOR WORKFORCE DEVELOPMENT

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | 50,000 |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.4 Line 4 PAY ITEM NO. 01010-5.02: ALLOWANCE FOR UNFORSEEN UTILITY INVESTIGATION AND CONFLICTS

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | 100,000 |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.5 Line 5 PAY ITEM NO. 01010-5.03: ALLOWANCE FOR OPERATION IMPACTS (INCLUDING LANDSIDE OPERATIONS/AIRLINE/TENANT)

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | 100,000 |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.6 Line 6 PAY ITEM NO. 01502-5.01: TRAFFIC CONTROL AND PROTECTION

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.7 Line 7 PAY ITEM NO. 01502-5.02: FURNISH, INSTALL, AND REMOVE TEMPORARY CONCRETE BARRIER

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.8 Line 8 PAY ITEM NO. 01502-5.03: RELOCATE TEMPORARY CONCRETE BARRIER

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.9 Line 9 PAY ITEM NO. 01502A-5.01: IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.10 Line 10 PAY ITEM NO. 01502A-5.02: IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.11 Line 11 PAY ITEM NO. 02074-5.01: REMOVE PCC PAVEMENT

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.12 Line 12 PAY ITEM NO. 02074-5.02: REMOVE TEMPORARY PAVEMENT

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.13 Line 13 PAY ITEM NO. 02074-5.03: REMOVE MEDIAN

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.14 Line 14 PAY ITEM NO. 02220A-5.01: REMOVAL OF EXISTING STRUCTURES

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.15 Line 15 PAY ITEM NO. 02220B-5.01: CONCRETE REMOVAL

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.16 Line 16 PAY ITEM NO. 02220C-5.01: PROTECTIVE SHIELD

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.17 Line 17 PAY ITEM NO. 02255A-5.01: TEMPORARY EARTH RETENTION SYSTEM

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.18 Line 18 PAY ITEM NO. 02315A-5.01: STRUCTURE EXCAVATION

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.19 Line 19 PAY ITEM NO. 02601-5.01: VITRIFIED CLAY PIPE (VCP), 8-INCH, EXTRA STRENGTH, TYPE 2

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.20 Line 20 PAY ITEM NO. 02601-5.02: VITRIFIED CLAY PIPE (VCP), 12-INCH, EXTRA STRENGTH, TYPE 2

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.21 Line 21 PAY ITEM NO. 02601A-5.01: DRAINAGE SCUPPERS, DS-12

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.22 Line 22 PAY ITEM NO. 02601B-5.01: DRAINAGE SYSTEM

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.23 Line 23 PAY ITEM NO. 02601C-5.01: GEOCOMPOSITE WALL DRAIN

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.24 Line 24 PAY ITEM NO. 02621-5.01: MANHOLE TYPE A, 3-FOOT DIA (NON-AIRCRAFT LOADING)

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.25 Line 25 PAY ITEM NO. 02621-5.02: INSPECTION HOLE

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.26 Line 26 PAY ITEM NO. 02621-5.03: CATCH BASIN TYPE A, 4-FOOT DIA (NON-AIRCRAFT LOADING)

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.27 Line 27 PAY ITEM NO. 02705-5.01: ABANDON PIPE IN-PLACE, GROUT SOLID

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.28 Line 28 PAY ITEM NO. 02714-5.01: PORTLAND CEMENT CONCRETE PAVEMENT FULL DEPTH

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.29 Line 29 PAY ITEM NO. 02714-5.02: PCC BOOTH ISLAND

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.30 Line 30 PAY ITEM NO. 02714-5.03: REMOVE AND REPLACE, PCC REINFORCE SIDEWALK, FULL DEPTH

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.31 Line 31 PAY ITEM NO. 02714-5.04: COMBINATION CURB AND GUTTER, TYPE M-6.18

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.32 Line 32 PAY ITEM NO. 02714A-5.01: CONCRETE BARRIER, DOUBLE FACE, 32 INCH HEIGHT

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.33 Line 33 PAY ITEM NO. 02714A-5.02: CONCRETE BARRIER BASE

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.34 Line 34 PAY ITEM NO. 02720-5.01: AGGREGATE BASE COURSE, CA-6

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.35 Line 35 PAY ITEM NO. 02720A-5.01: GRANULAR BACKFILL FOR STRUCTURES

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.36 Line 36 PAY ITEM NO. 02745A-5.01: TEMPORARY PAVEMENT

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.37 Line 37 PAY ITEM NO. 02783-5.01: TEMPORARY PAVEMENT MARKING LINE, 4-INCH

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.38 Line 38 PAY ITEM NO. 02783-5.02: TEMPORARY PAVEMENT MARKING LINE, 6-INCH

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.39 Line 39 PAY ITEM NO. 02783-5.03: TEMPORARY PAVEMENT MARKING LINE, 24-INCH

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.40 Line 40 PAY ITEM NO. 02783-5.04: TEMPORARY PAVEMENT MARKING LINE, REMOVAL

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.41 Line 41 PAY ITEM NO. 02783-5.05: PAVEMENT MARKING LINE, EPOXY, 4-INCH

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.42 Line 42 PAY ITEM NO. 02783-5.06: PAVEMENT MARKING LINE, EPOXY, 6-INCH

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.43 Line 43 PAY ITEM NO. 02783-5.07: PAVEMENT MARKING LINE, EPOXY, 12-INCH

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.44 Line 44 PAY ITEM NO. 02783-5.08: PAVEMENT MARKING LINE, EPOXY, 24-INCH

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.45 Line 45 PAY ITEM NO. 02783-5.09: PAVEMENT MARKING, LETTERS AND SYMBOLS, EPOXY

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.46 Line 46 PAY ITEM NO. 02839A-5.01: REMOVE AND RE-ERECT OVERHEAD SIGN SUPERSTRUCTURE - BRIDGE MOUNTED, 10' X 24'

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.47 Line 47 PAY ITEM NO. 02839A-5.02: REMOVE AND RE-ERECT OVERHEAD SIGN SUPERSTRUCTURE - BRIDGE MOUNTED, 10' X 58'

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.48 Line 48 PAY ITEM NO. 02839B-5.01: OVERHEAD SIGN SUPERSTRUCTURE - BRIDGE MOUNTED

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.49 Line 49 PAY ITEM NO. 02875-5.01: STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.50 Line 50 PAY ITEM NO. 02875-5.02: TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL)

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.51 Line 51 PAY ITEM NO. 02875-5.03: TRAFFIC BARRIER TERMINAL, TYPE 2

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.52 Line 52 PAY ITEM NO. 02875-5.04: TRAFFIC BARRIER TERMINAL, TYPE 5

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.53 Line 53 PAY ITEM NO. 02875-5.05: TRAFFIC BARRIER TERMINAL, TYPE 6

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.54 Line 54 PAY ITEM NO. 02920-5.01: TOPSOILING

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.55 Line 55 PAY ITEM NO. 02930-5.01: TREE, HONEYLOCUST, 4-INCH CAL.

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.56 Line 56 PAY ITEM NO. 02930-5.02: PENSTEMON HUSKER'S RED, #1 POT (1 GAL.)

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.57 Line 57 PAY ITEM NO. 02930-5.03: STELLA DE ORO DAYLILY, #1 POT (1 GAL.)

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.58 Line 58 PAY ITEM NO. 02930-5.04: WELCOMING TRUMPETS MIX DAFFODILS

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.59 Line 59 PAY ITEM NO. 02931-5.01: SEED, PERMANENT

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.60 Line 60 PAY ITEM NO. 02970-5.01: REMOVE AND REPLACE IRRIGATION SYSTEM

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.61 Line 61 PAY ITEM NO. 03200A-5.01: REINFORCEMENT BARS, EPOXY COATED

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.62 Line 62 PAY ITEM NO. 03200B-5.01: BAR SPLICERS

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.63 Line 63 PAY ITEM NO. 03300A-5.01: CONCRETE STRUCTURES

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.64 Line 64 PAY ITEM NO. 03300B-5.01: CONCRETE SUPERSTRUCTURE

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.65 Line 65 PAY ITEM NO. 03300C-5.01: CONCRETE SUPERSTRUCTURE (APPROACH SLAB)

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.66 Line 66 PAY ITEM NO. 03300D-5.01: BRIDGE DECK GROOVING

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.67 Line 67 PAY ITEM NO. 03300E-5.01: CONCRETE SEALER

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.68 Line 68 PAY ITEM NO. 03300F-5.01: PROTECTIVE COAT

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.69 Line 69 PAY ITEM NO. 05120A-5.01: FURNISHING AND ERECTING STRUCTURAL STEEL

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.70 Line 70 PAY ITEM NO. 05120B-5.01: STUD SHEAR CONNECTORS

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.71 Line 71 PAY ITEM NO. 05500A-5.01: ALUMINUM RAILING, TYPE L

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.72 Line 72 PAY ITEM NO. 05500B-5.01: NAME PLATES

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.73 Line 73 PAY ITEM NO. 05800A-5.01: ANCHOR BOLTS, 1"

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.74 Line 74 PAY ITEM NO. 05800B-5.01: ELASTOMERIC BEARING ASSEMBLY, TYPE I

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.75 Line 75 PAY ITEM NO. 05800C-5.01: PREFORMED JOINT STRIP SEAL

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.76 Line 76 PAY ITEM NO. 10462-5.01: BOLLARD

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.77 Line 77 PAY ITEM NO. 16010-5.01: REMOVAL OF LIGHTNING UNIT, NO SALVAGE

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.78 Line 78 PAY ITEM NO. 16010-5.02: REMOVE AND REINSTALL VIDEO CAMERA AND EQUIPMENT

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.79 Line 79 PAY ITEM NO. 16010-5.03: REMOVE AND REINSTALL SIGN, MESSAGE, ELECTRICALLY ILLUMINATED, BRACKET MOUNTED

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.80 Line 80 PAY ITEM NO. 16100-5.01: AUTOMATED GATE SYSTEM - DISCONNECT, RELOCATE AND INSTALL

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.81 Line 81 PAY ITEM NO. 16100-5.02: CONDUIT ATTACHED TO STRUCTURE, 1" DIA., PVC COATED GALVANIZED STEEL

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.82 Line 82 PAY ITEM NO. 16100-5.03: JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.83 Line 83 PAY ITEM NO. 16100-5.04: REMOVE CONDUIT ATTACHED TO STRUCTURE

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.84 Line 84 PAY ITEM NO. 16100-5.05: FLEXIBLE LIQUID TIGHT SS CONDUIT, 1" DIA, 6' LENGTH

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.85 Line 85 PAY ITEM NO. 16100-5.06: REMOVAL AND REPLACEMENT OF EXISTING COMMUNICATION WIRING

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.86 Line 86 PAY ITEM NO. 16100-5.07: REMOVAL AND REPLACEMENT OF EXISTING DUCT BANK

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.87 Line 87 PAY ITEM NO. 16100-5.08: REMOVAL AND RELOCATION OF EXISTING STANLESS STEEL ENCLOSURE AT PIER 103

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.88 Line 88 PAY ITEM NO. 16100-5.09: INSTALLATION OF NEW EXPRESS EXIT EQUIPMENT AND WIRING

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.89 Line 89 PAY ITEM NO. 16123-5.01: REMOVAL OF CABLE IN CONDUIT

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.90 Line 90 PAY ITEM NO. 16123-5.02: #10 AWG XHHW-2 WIRE

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.91 Line 91 PAY ITEM NO. 16123-5.03: #8 AWG XHHW-2 WIRE

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.92 Line 92 PAY ITEM NO. 16520-5.01: UNDERPASS LED LIGHT FIXTURE

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.93 Line 93 PAY ITEM NO. 16520-5.02: SIGNAGE LED LIGHT FIXTURE

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.94 Line 94 PAY ITEM NO. L-115-5.01: ELECTRICAL HANDHOLES

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.95 Line 95 PAY ITEM NO. P-151-5.01: TREE REMOVAL, 6 INCHES TO 18 INCHES, BUTT DIAMETER

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.96 Line 96 PAY ITEM NO. P-156-5.01: INLET PROTECTION

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.97 Line 97 PAY ITEM NO. P-156-5.02: EROSION CONTROL BLANKET

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.98 Line 98 PAY ITEM NO. X-100-5.01: REMOVE PCC BOOTH ISLAND

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.99 Line 99 PAY ITEM NO. X-100-5.02: REMOVE CONCRETE BARRIER AND BASE

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.100 Line 100 PAY ITEM NO. X-100-5.03: REMOVE GUARDRAIL

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.101 Line 101 PAY ITEM NO. X-100-5.04: REMOVE BOOTH #41, SALVAGE AND RETURN TO OWNER

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.102 Line 102 PAY ITEM NO. X-100-5.05: REMOVE STORM SEWER STRUCTURE

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.103 Line 103 PAY ITEM NO. X-100-5.06: REMOVE PAVEMENT MARKINGS

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

2.2.104 Line 104 PAY ITEM NO. X-100-5.07: REMOVE CURB AND GUTTER

| | | | |
|------------------------------|----------------------|--------------------|----------------------|
| Category | 90910.. | Start Price (USD) | Not Specified |
| Shopping Category | Not Specified | Target Price (USD) | Not Specified |
| Minimum Release Amount (USD) | Not Specified | | |
| Estimated Total Amount (USD) | Not Specified | | |

**CITY OF CHICAGO
DEPARTMENT OF AVIATION
Recirculation Bridge Replacement**

**PART ONE OF THREE
INSTRUCTIONS AND EXECUTION DOCUMENTS**

SPECIFICATION NO.: 800480

PROJECT NO.: H3073.18-00



**CITY OF CHICAGO
Rahm Emanuel
Mayor**



**CHICAGO DEPARTMENT OF AVIATION
Jamie L. Rhee
Commissioner**

Issued by:

**DEPARTMENT OF PROCUREMENT SERVICES
Shannon E. Andrews
Chief Procurement Officer**

**FEBRUARY 21, 2019
ISSUED FOR BID**



DEPARTMENT OF PROCUREMENT SERVICES
CITY OF CHICAGO

Dear Vendor:

Under the leadership of Mayor Rahm Emanuel, the City continues to identify ways contractors can be good corporate citizens, enhance the City's business community, and improve small businesses' chances of being successful City contractors. The City has several bid incentives and programs designed to benefit local businesses, small businesses and utilization thereof, and reward corporate responsibility and community awareness, including bid incentives for apprentice utilization, city-based businesses, city-based manufacturers, project-area subcontractors, veteran/small business joint ventures, and the use of alternatively powered vehicles, as well as the diversity credit program. Information about all of the City's programs and incentives can be found at www.cityofchicago.org/city/en/depts/dps/provdrs/comp.html.

One program that you may not be aware of is the City's Mentor-Protégé Program ("Program"). Under this Program, a prime contractor mentor is eligible to receive (1) a 1% bid incentive; and (2) an additional 0.5 percent participation credit for every one percent of the value of the contract performed by a subcontractor MBE/WBE protégé (in addition, instead of being mentored by the prime, can be mentored by a first-tier subcontractor), up to a maximum of five additional percentage points of utilization credit. The mentor and protégé must enter into a formal, written agreement that must be approved by the Chief Procurement Officer and that describes how the mentor-protégé relationship will develop the capacity of the MBE/WBE protégé firm to become self-sufficient, competitive, and profitable.

The Mentor-Protégé Program thus embodies two of the City's most important goals: fostering economic development through the growth of small businesses, and connecting our communities to one another through lasting relationships that may not otherwise have formed. We encourage you to make connections at pre-bids and other networking events, contact the assist agencies¹ for vendors specializing in the area of work you are looking to subcontract, and search our MBE/WBE directory online, with the hope that you will take advantage of this Program.

Please also review the following additional reminders about bidding, contracting, and compliance.

Please read Instructions for Bidders, Requests for Proposals and Requests for Qualifications carefully. We understand that government solicitations for bids, proposals and qualifications contain a lot of information and may have mandatory forms to complete. However, errors and omissions in your bids, proposals and qualifications cost both you and the City time and money, since non-responsive bids must be rejected. Rejected bids may result in your firm not getting the contract and increase the cost of work to the City.

If you have a question, ask us. The telephone number and e-mail address of the individual from DPS who is responsible for each solicitation is stated on the cover page of that solicitation. Call or write us – we are here to assist you. However, please keep in mind that in regards to bid solicitations, we must communicate answers to anything but the most general questions to all firms in the vendor pool. This is usually done via an addendum.

The City remains committed to the development and utilization of small, minority, women and disadvantaged owned businesses. In each bid solicitation, you receive a list of the City's registered assist

¹ For a list of assist agencies, visit

www.cityofchicago.org/content/dam/city/depts/dps/ContractAdministration/Forms/AssistAgenciesJune2016.pdf.

agencies. As you plan for meeting your MBE/WBE goals, remember to contact the assist agencies. They have members holding certification in a variety of disciplines. Please utilize them whenever you have contracting needs. In fact, contacting these agencies *well in advance of the bid opening date* is a requirement for demonstrating good faith efforts to obtain MBE/WBE participation if you request a reduction or waiver of goals.

All subcontractors must be approved by the Chief Procurement Officer. A contractor may not make any substitution for a previously approved subcontractor unless the substitution is acceptable to the Chief Procurement Officer. All requests to substitute subcontractors must be submitted on the appropriate form.

You must pay all subcontractors and suppliers within seven days of your receiving payment for that portion of the work from the City. Failure to pay your subcontractors within the seven-day time period may subject you to fines or other penalties.

Vendors are required to report payments to all subcontractors and suppliers in C2. The City's Certification and Compliance Management system, C2, allows prime contractors to report M/W/DBE utilization quickly and efficiently through a web-based format while simultaneously allowing subcontractors the ability to confirm payment activity.

EDSs must be kept up to date. Vendors are required to fill out an Economic Disclosure Statement ("EDS") prior to award of a contract. Until final completion of the project, you must provide, without need for request by the City, an updated EDS if there is any change in ownership or change in any other circumstance that would render the EDS then currently on file inaccurate or obsolete. Failure to provide an updated EDS when required is an event of default.

Persons who lobby City government are required to register as a lobbyist with the Board of Ethics and submit activity reports every quarter. For more information regarding this requirement, please contact the City of Chicago Board of Ethics. Information about the Board may be found at www.cityofchicago.org/ethics.

Check the Debarred Vendor List. Prior to submitting a bid, or for existing contracts, a request for approval of subcontractors, you must check the list of debarred vendors to make sure that you are not proposing the use of a firm that is ineligible to do business with the City. The list of vendors ineligible to do business with the City may be found at www.cityofchicago.org/city/en/depts/dps/provdrs/debarred_firms_list.html.

Comply with prevailing wage and minimum wage requirements. Pursuant to the Illinois Prevailing Wage Act, (or Davis Bacon Act for federally funded contracts), contractors and subcontractors must pay laborers, workers and mechanics performing services on public works projects no less than the current "prevailing rate of wages" (hourly cash wages plus amount for fringe benefits) in the county where the work is performed and, no later than the tenth day of each calendar month, file a certified payroll for the immediately preceding month with the public body in charge of the project. Additionally, pursuant to Mayoral Executive Order 2014-1, the minimum wage* must be paid to all employees regularly performing work on City property or at a City jobsite, and all employees whose regular work entails performing a service for the City under a City contract. For more information about the prevailing wage, visit www.illinois.gov/idol/Laws-Rules/CONMED/Pages/prevailing-wage-rates.aspx. For a copy of Mayoral Executive Order 2014-1 regarding minimum wage, visit www.cityofchicago.org/content/dam/city/depts/dps/RulesRegulations/ExecutiveOrderNo2014-1.pdf.

Comply with the United States Department of Labor Occupational Safety & Health Administration ("OSHA") laws and regulations. Under the Occupational Safety and Health Act, employers are responsible for providing a safe and healthful workplace. OSHA's mission is to assure safe and healthful workplaces by setting and enforcing standards, and by providing training, outreach, education and assistance. Employers must comply with all applicable OSHA standards. Employers must also comply with the

General Duty Clause of the OSH Act, which requires employers to keep their workplace free of serious recognized hazards. For more information, visit www.osha.gov/law-regs.html.

Comply with the Multi-Project Labor Agreement ("PLA"). The City is a signatory to the PLA, which applies to all contractors and subcontractors of any tier performing construction work, including construction, demolition, rehabilitation, maintenance, and/or renovation of real property located in Chicago. See the relevant sections of the bid specification for more information.

Assistance in meeting the City's requirements for project area labor is available through the Chicago Cook Workforce Partnership. On construction projects of \$100,000 or more, at least 50% of the total hours worked must be provided by City residents, and at least 7.5% of the hours worked must be provided by residents of the project area. The City and Cook County have partnered to provide job training and collaborate with unions, among other workforce development initiatives. For more information and to request assistance with complying with Chicago residency and project area residency requirements, visit www.workforceboard.org/businesses or call (312) 603-7066.

Schedule Cs must reflect the agreement between the subcontractor and the prime contractor. A subcontractor's signature on the Schedule C means it has agreed to the scope and price of work that is described therein. We strongly caution against subcontractors signing and sending blank Schedule Cs to prime contractors.

Pay at least the applicable wage rate, and note the requirements of the paid sick leave ordinance. On December 2, 2014, the City Council of the City of Chicago passed a new chapter of the Municipal Code, 1-24, specifying a minimum wage to be paid to all workers within the City of Chicago – not just employees of City contractors – effective July 1, 2015. For work performed on City contracts, a Contractor must pay the highest of (1) prevailing wage/Davis-Bacon rate, if applicable; (2) minimum wage specified by Mayoral Executive Order 2014-1*; (3) "Living Wage" rate specified by MCC Sect. 2-92-610; (4) Chicago Minimum Wage rate specified by MCC Chapter 1-24*; or (5) the highest applicable State or Federal minimum wage. In addition, § 1-24-045, Paid Sick Leave, which was passed in 2016, requires all employers of employees performing work in the City to provide paid sick leave, **effective July 1, 2017**.

Note that there are different types of waivers of lien. A *Conditional Waiver and Release Upon Progress Payment* is used when the claimant is required to sign a waiver and release in exchange for, or in order to, induce a progress payment, and the claimant has not yet been paid. A *Conditional Waiver and Release Upon Final Payment* is used when the claimant is required to sign a waiver and release in exchange for, or in order to, induce a final payment, and the claimant has not yet been paid. Remember, any outstanding balance that is owed to the claimant or retainage held should be noted in the balance section of the waiver of lien. An *Unconditional Waiver and Release Upon Progress Payment* is used when the claimant is required to sign a waiver and release in exchange for, or in order to, induce a progress payment, and the claimant asserts in the waiver that he or she has received the progress payment. An *Unconditional Waiver and Release Upon Final Payment* is used when the claimant is required to sign a waiver and release in exchange for, or in order to, induce a final payment and the claimant asserts in the waiver that he or she has received the final payment.

Please take a moment to fill out the **optional** survey that follows this letter to help us gain a better understanding of your firm. Thank you for your attention to these important matters, and we look forward to partnering with you on future City contracts.

Sincerely,



Shannon E. Andrews
Chief Procurement Officer



*For the most up-to-date wage rate information, visit www.cityofchicago.org/city/en/depts/dps/provdrs/comp.html.

PLEASE NOTE: Do not return this survey with your bid, as it is optional and does not affect the evaluation of your bid. If you choose to complete the survey, please fax it to 312-744-0010 or email it to dps.feedback@cityofchicago.org.

Vendor Name ("Vendor"): _____

Date: _____

- (1) Does Vendor have a formal tracking and reporting system of energy/utility/waste/water usage to identify trends and unusual fluctuations and usage?

- (2) Does Vendor have an awareness program for energy conservation that includes regular communication to employees about avoiding wasteful practices and encourages turning off lights and other devices when not in use?

If so, are reminder signs posted in appropriate locations? _____

- (3) Has a policy or practice been adopted to avoid or prohibit the use of high energy-consuming outdoor advertising (such as LED billboards)?

- (4) Are employees instructed to shut down personal computers at the end of each work period?

Are computers set to turn off monitor, hard drive, or go on standby after 30 minutes or less of inactivity, or are network/system controls used to minimize energy use in idle work stations?

- (5) Are supplies and cleaning products chosen based on a goal of minimizing harmful or hazardous contents?

(6) Is preference given whenever practicable to local suppliers and products produced locally or regionally?

(7) What percentage of Vendor's full-time employees identify as:

- a. White _____%
- b. Black or African-American _____%
- c. Hispanic _____%
- d. Asian _____%
- e. Other _____%

(8) What percentage of Vendor's full-time employees identify as:

- a. Male _____%
- b. Female _____%

INSTRUCTIONS AND EXECUTION DOCUMENTS
ADVERTISEMENT FOR BIDS

ATTACH
LEGAL
ADVERTISEMENT
HERE

Bid Package Contents

Specification No.: 800480

Project No.: H3073.18-00

Downloadable Files

- **Appendix 1 eProcurement**
- **Part One of Three – Instructions and Execution Documents**
- **Part Two of Three – General Conditions**
- **Part Three of Three – Technical Specifications**
- **Construction Safety Manual**
- **Drawings**

APPENDIX 1 ePROCUREMENT

This is an eProcurement Bid. Bids are to be submitted through the City's "iSupplier" system, the City's eProcurement computer system for electronic bidding and providing Contractors with access to contract, ordering and payment information for their City contracts. The following provisions apply to this bid and supersede any conflicting provisions in Books 1, 2, and 3.

1. Obtaining the Bid Documents

Bidders are solely responsible for obtaining all Bid Documents, including Clarifications and Addenda. Documents may be downloaded from the Department of Procurement Service's ("DPS") website at the following URL:

<http://www.cityofchicago.org/eProcurement>

Click on "Current Bids."

In order to receive notice of clarifications and addenda, Bidders must be registered for and log-in to iSupplier, search for the solicitation number, open the solicitation for review, and accept the disclaimer. This will sign Bidders up for notifications.

Bid Document Holders are listed on the Bid & Bond Room Opportunity Take Out List. The Opportunity Take Out List is public information and is posted to the DPS web site at www.cityofchicago.org/TOL. To find Opportunity Take Out lists go to "Get Started Online" and search by the specification number.

2. Clarifications and Addenda

The City will send an email notification to suppliers who have indicated intent in a Bid that an addendum or clarification has been issued. The Clarifications and Addenda incorporated into the electronic bid document available at the following URL:

<https://www.cityofchicago.org/eProcurement>

Suppliers that have indicated interest in a Bid will receive email notification that an addendum or clarification has been issued. There may be multiple Clarifications and Addenda. Failure to obtain Clarifications and/or Addenda, for whatever cause, will not relieve a Bidder from the obligation to bid according to and comply with any changed or additional terms and conditions contained in the Clarifications and Addenda.

Electronic Acknowledgement of Clarifications and/or Addenda is mandatory to submit an electronic Bid. Any harm to the bidder resulting from failure to obtain all necessary documents, for whatever cause, will not be valid grounds for a protest against award(s) made under this bid solicitation.

3. Questions Regarding the Bid Documents; Bidder Inquiry Deadline

All inquiries regarding the Bid Documents or procurement process may be directed to the Procurement Specialist/Senior Procurement Specialist via email at CDABidquestions@cityofchicago.org

The Bidder Inquiry Deadline is listed on the front cover of the Bid Documents under "Deadline for Questions." Inquiries received after the Bidder Inquiry Deadline will not be answered except at the discretion of the Chief Procurement Officer.

Bidders may only rely on written answers in a Clarification or in an Addendum duly issued by the Chief Procurement Officer. Bidders cannot rely on oral or informal responses; such answers will not be binding upon the City.

4. Completion of the Bid Documents

Each Bidder must complete all of the forms listed on the Bid Submittal Checklist (with the exception of the Proposal Pages) in the Requirements section and scan and upload them as attachments to the electronic bid submission. Bidders may not change any of the Bid Documents. Any changes made by a Bidder to the Bid Documents may result in rejection of the Bid, and will not be binding upon the City.

Bidders must submit their pricing electronically by filling out bid lines in the electronic Price Schedule in the iSupplier system.

Bidders must use the Bid Execution Page that is appropriate for their form of business organization (e.g., sole proprietorship, corporation, partnership, or joint venture). The individual(s) that sign the Bid Execution Page on behalf of the Bidder, by their signature, represents and warrants to the City that such individual is authorized to execute bids and contracts on behalf of the Bidder, and that the Bidder agrees and shall be bound to all of the terms and conditions of the Bid Documents and, upon execution by the City, the Contract Documents. Signatures must be sworn before a Notary Public. The form must be printed, signed, notarized and scanned then uploaded as an attachment to the electronic bid submission.

5. Date, Time, and Place

Bids are to be submitted electronically to the Department of Procurement on the date and prior to the time stated on the Cover Page of the Bid Documents, or any addendum issued by the City to change such Bid Opening Date. No bid will be accepted after the Bid Opening Date. The time of the receipt of the bid will be determined solely by the "Time of Quote" generated by the iSupplier system.

6. Bid Deposit

2% of the Total Base Bid

When submitting an electronic bid, scan and upload a copy of your bid deposit with your submittal documents. The 1st and 2nd apparent low bidders will be required to deliver their original and properly executed bid deposit to the Bid & Bond Room within 2 business days following the Bid Opening Date.

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SECTION 6

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DOCUMENT SUBMITTAL CHECKLIST

This checklist is intended to assist Bidders but does not necessarily reference all documents required in this particular Specification. Bidders should review this entire Part One for additional requirements. Missing forms may invalidate a bid.

1. Bid Form properly completed. _____
2. Award Criteria Determination completed. _____
3. Schedule of Prices, completed and totaled. _____
4. Appropriate Proposal Page completed, signed and notarized. _____
5. Department of Procurement Services Bid Bond/Bid Deposit. _____
6. Addenda (if any) acknowledged on the Proposal Page. _____
7. Online EDS Number Provided. _____
8. Online EDS Certificate of Filing. _____
9. MBE/WBE Schedules completed. _____
 - a. Schedule B: MBE/WBE Affidavit of Joint Venture, if applicable; completed, signed and notarized. _____
 - b. Schedule C: Letter of Intent to Perform as Subcontractor or Supplier, completed and signed. _____
 - c. Schedule D: Compliance Plan Regarding MBE and WBE Utilization completed, signed and notarized. _____
 - d. Schedule F: Report of Subcontractor Solicitations for Construction Contracts, completed signed and notarized. _____
 - e. Schedule H: Documentation of Good Faith Efforts to Utilize MBE's and WBE's on Construction Contracts, if applicable; completed signed and notarized. _____
10. Contractor's Statement of Experience and Financial Condition on File. _____
11. Affidavit of Uncompleted Work completed, signed and notarized. _____
12. Proper Insurance Certificate provided. _____
13. Certificate regarding Removal of All Waste Materials and Dump Sites. _____
14. Affidavit of Chicago Business. _____
15. Schedule AP: Letter of Intent to Hire/Sponsor Union Apprentices. _____

PRE-BID CONFERENCE NOTICE

A pre-bid conference, for all Bidders interested in submitting bids for the Work under this Contract, relating to site conditions, and any other requirements and clarifications regarding this Project, will be held by the Department of Aviation at the time and place stated in the Legal Advertisement.

If any Persons interested in submitting bids for this Contract have questions, all such questions or requests for clarification must be submitted to the following e-mail address:

CDAbidquestions@cityofchicago.org

The Specification number listed below **MUST** be included in the subject line of your e-mail.

All questions must be submitted no later than 4:00 P.M. C.S.T. on March 12, 2019 or no response will be provided except at the discretion of the Chief Procurement Officer.

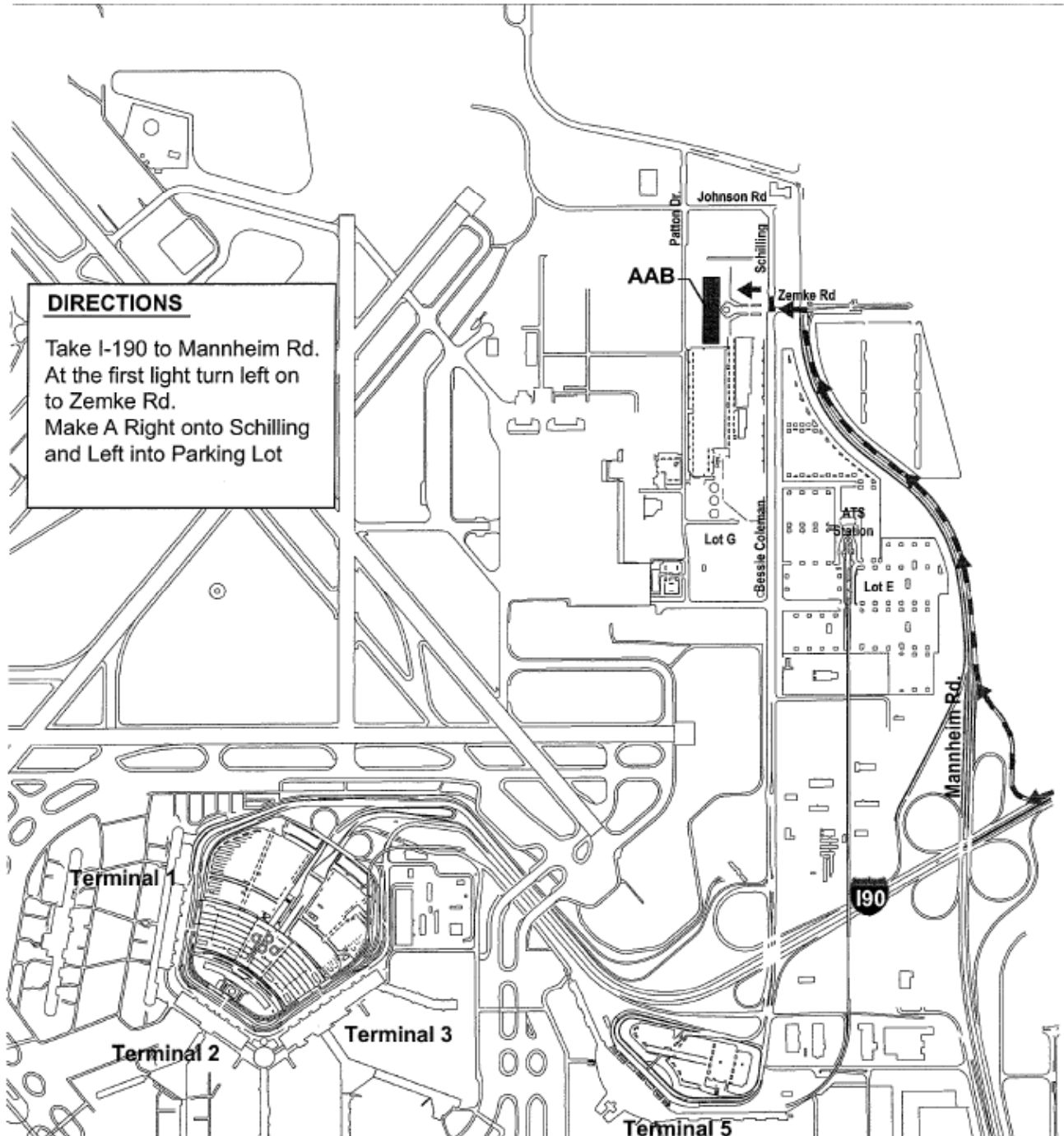
Project Name: Recirculation Bridge Replacement
Specification No.: 800480

PLANS AND SPECIFICATIONS AVAILABLE AT:

CITY OF CHICAGO DEPARTMENT OF PROCUREMENT SERVICES
Bid and Bond Room
Room 103, City Hall
121 North LaSalle Street
Chicago, Illinois 60602

PRE-BID LOCATION MAP

AVIATION ADMINISTRATION BUILDING (AAB) 10510 WEST ZEMKE ROAD CHICAGO, IL 60666



Special Notice Regarding Minority Business Enterprise Commitment and Women Business Enterprise Commitment

**NOTICE! NOTICE! NOTICE!
NOTICE! NOTICE! NOTICE!**

All Bidders are directed to carefully examine this Contract's Special Condition Regarding Minority Business Enterprise Commitment and Women Business Enterprise Commitment in Construction Contracts.

Special notice should be given to the following paragraphs of Article V "Procedure to Determine Bid Compliance" set forth in the Special Conditions Regarding Minority Business Enterprise Commitment and Women Business Enterprise Commitment in Construction Contracts found herein.

Schedule D: Compliance Plan Regarding MBE and WBE Utilization, Letters of Certification, and Schedule F: Report of Subcontractor Solicitations; and

Bidders must submit, together with the bid, a completed Schedule D committing them to the utilization of each listed MBE and WBE firm, a copy of each MBE or WBE's letter of Certification from the City of Chicago or Cook County, and a completed Schedule F documenting all subcontractors and suppliers solicited for participation on the contract by the Bidder.

Bidders who fail to submit, together with their bid, a complete Schedule D (committing to the utilization of each listed MBE and WBE firm), a complete Schedule F (documenting all subcontractors and suppliers solicited for participation on the contract by the Bidder), and a copy of each proposed MBE's and WBE's Letter of Certification from the City of Chicago or Cook County, may be deemed non-responsive and their bid may be rejected.

**NOTICE! NOTICE! NOTICE!
NOTICE! NOTICE! NOTICE!**

PROJECT OVERVIEW

Project Name: Recirculation Bridge Replacement
Specification No.: 800480
CDA Project No.: H3073.18-00

General Description of the Work:

The Work consists of furnishing all means, methods, labor, materials, tools, equipment, transportation and services for performing the General Work, Civil Work, Structural Work, Architectural Work, Landscaping Work, Mechanical Work and Electrical Work as shown on the Drawings and as described in the Technical Specifications, including all appurtenant work and accessories, to the complete satisfaction of, approval and acceptance by the City. This includes but is not limited to, demolition and reconstruction of the existing bridge substructure, superstructure, deck replacement, underpass lighting, and associated lower and upper level roadway and drainage improvements.

This description of work is intended to be general in nature and is neither a complete description nor a limitation on the Work to be performed. Contractor must perform all Work described in the Contract Documents or reasonably inferable as necessary to produce the results specified therein, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

Estimated Project Cost: \$3,500,000 - \$5,000,000

Advertisement Date: February 21, 2019

Pre-Bid Conference Date/Time: March 5, 2019 at 12:00 PM

Question Cut-Off Date/Time: March 12, 2019 at 4:00 PM, C.S.T

Bid Opening Date/Time: March 25, 2019 at 11:00 AM, City Hall, Bid and Bond, Room 103, Chicago, IL 60602

Plan Fee/Deposit:

For this Project, Contract Documents will be provided on CD-ROM. One set of Contract Documents will be provided to the Bidder at no cost.

Bid Deposit/Bond:

For this Project a bid deposit is required in the amount of 2% of the contract base bid in the form of a bond, or the equivalent in cashier's check, money order or certified check.

MBE/WBE Goals: 28.36% MBE 6.26% WBE

Award of Contract:

A contract will be awarded per the basis of award stated on the bid form.

Inspection of Site:

The Bidder is expected to inspect the site of the Work. All requests to visit the site of the Work must be made prior to the question cut-off date specified in Section 1, Chapter 13 - Interpretation of Contract Documents. No allowance will be made for any difficulties that may be encountered in executing the Work due to a failure of the Bidder to inspect the Site. Requests for Site Inspections must be submitted to the following e-mail address and include the Specification number on the subject line: CDAbidquestions@cityofchicago.org

SECTION 1 REQUIREMENTS FOR BIDDING AND INSTRUCTIONS FOR BIDDERS

1. DEFINITIONS:

- a. "Bidder" means a party that executes and submits the Contract Documents in connection with this invitation for bids.
- b. "Chief Procurement Officer" or "CPO" means the chief executive of the Department of Procurement Services for the City of Chicago, and any representative duly authorized in writing to act on the CPO's behalf.
- c. "Commissioner of Aviation" or "Commissioner" means the chief executive of the Department of Aviation for the City of Chicago, and any representative duly authorized in writing to act on the Commissioner's behalf.
- d. "Contract" or "Contract Documents" are Part One: Instructions and Execution Documents; Part Two: General Conditions; Part Three: Technical Specifications; Project Requirements; Contract Plans and Drawings; any Addenda; FAA Standard Specifications for Airport Construction, reference standards promulgated by various agencies including Federal, State or local government units, as well as any other specialized documents that are referred to in Part Three.
- e. "Official Printed Copy" of the Contract Documents means a copy of the Contract Documents as printed by the City from the City's copy of the CD providing Contract Documents. An Official Printed Copy of the Contract Documents will be available for examination in the Bid and Bond Room, 1st floor of City Hall, 121 N LaSalle Street, Chicago, IL 60602.
- f. Additional definitions are found in Part Two, General Conditions of the Contract.

2. COMPLIANCE WITH LAWS:

The Bidder shall at all times observe and comply with all laws, ordinances, regulations, executive orders and codes of Federal, State, City and other government agencies, which affect the preparation of bids. The Bidder shall reflect in its bid all costs of compliance with all such laws, ordinances, regulations, executive orders and codes.

3. EXAMINATION BY BIDDER:

The Bidder shall carefully examine all the Contract Documents before submitting its bid. The Bidder shall also inspect the site of the proposed Work, as permitted by the Commissioner, and familiarize itself with all the conditions affecting the Work and the Technical Specifications of the Contract Documents. If its bid is accepted, the Bidder will bear the cost for (1) all errors in its bid resulting from its failure or neglect to comply with these Requirements for Bidding and Instructions for Bidders, and (2) the additional expense attributable to site conditions that could have reasonably been discovered through a site inspection or other means provided by the City or made available to the Bidder.

4. BID DEPOSIT:

AMOUNT OF BID DEPOSIT: 2% of Contract Base Bid.

If a bid deposit is required and not provided, the bid will be rejected. The bid deposit must be a bond, or the equivalent in cashier's check, money order or certified check. Any bond must be executed by a surety authorized to do business in the State of Illinois, and it must be in the form provided by the CPO, an example of which is bound herein on page S5-56. All certified checks must be drawn on a responsible bank doing business in the United States, and shall be made payable to the order of the City of Chicago. **CASH OR COMPTROLLER'S CERTIFICATE IS NOT AN ACCEPTABLE FORM OF BID DEPOSIT.**

- a. The bid deposit of all Bidders, except for the three lowest Bidders, will be returned shortly after the bid opening. Notwithstanding the foregoing, the CPO reserves the right to hold all bid deposits, if the intent is to award multiple contracts for a requirement and/or if the three lowest responsible Bidders cannot be readily determined based on price, until all proposals have been evaluated.
- b. The remaining bid deposits will be returned, with the exception of the bid deposit for the accepted bid, after the CPO has awarded the contract. The bid deposit for the accepted bid will be returned after the contract has been awarded and a satisfactory Performance and Payment Bond has been approved by the City, where such bond is required.

5. DOCUMENT DEPOSIT:

For this Project, Contract Documents will be provided on CD. The initial set of Contract Documents will be provided to the Bidder at no cost.

The Bidder shall deposit Fifty Dollars (\$50.00) for each subsequent set of Contract Documents. The document deposit must be paid in the form of a certified check, cashier's check, or money order. The deposit will be refunded upon return of the Documents, in good condition, not later than ten (10) days after the bid opening. Failure to return the Contract Documents within the period stated above will result in the Bidder forfeiting the document deposit.

All Contract Documents are provided on CD, including Part One and the remainder of the documents. However, the documents on the CD are not the Official Printed Copy of the Contract Documents.

6. PREPARATION OF BID:

The Bidder shall complete its bid by filling out and signing only one copy of the entire Part One of the Contract Documents. All applicable blank spaces on the bid page or pages must be correctly filled-in in ink or typewritten. Bidders should not scan Contract Documents for word processing. The Bidder shall submit all pages of Part One of the Contract Documents, bound, with all pages intact. Failure to submit all required pages may result in rejection of the bid.

7. SUBMISSION OF BID:

- a. The Bidder shall submit its bid with the applicable bid deposit and bid fee, enclosed in sealed envelopes, provided for that purpose in the Bid and Bond, Room 103, City Hall, 121 North LaSalle, Chicago, IL, 60602 and if the bid is submitted in an envelope other than that provided then the sealed envelope submitted by the Bidder, shall have the following information on the face of the envelope: Bidder's name, address, Contract Specification number, advertised date of bid and date of bid opening.
- b. The Bidder is solely responsible for delivery of its bid to the Bid and Bond Room before the date and time for bid opening. Any bid which is not delivered on time will not be accepted.

8. TERM OF BID:

- a. The Bidder may withdraw its bid at any time prior to the date and time for bid opening. Thereafter, the Bidder may not withdraw or cancel its Bid for a period of ninety (90) calendar days after the bid opening date.
- b. The ninety (90) day period will not be extended without the signed written consent of the Bidder to extend the bid on the same terms and conditions.
- c. The ninety (90) day period for bid withdrawal is tolled for any period of time that the Bidder requires to submit any necessary contract document to the City including, but not limited to, bonds, Economic Disclosure Statements, Insurance Certificates, and compliance schedules.

9. RESPONSIBILITY OF BIDDER:

- a. The award of the Contract will be made to the lowest responsive and responsible bidder. The CPO reserves the right to request, and the bidder must promptly provide evidence satisfactory to the CPO of the Bidder's responsibility. No Contract will be awarded to any Bidder which is determined to be non-responsible in the sole discretion of the CPO.
- b. If requested by the CPO, the Bidder (or if a joint venture, the Bidder's joint venturers) must complete a "Contractor's Statement of Experience and Financial Condition." This statement is available in the City's Bid and Bond Room. Failure to complete and return this statement may be a cause for rejection of the Bidder's bid.

10. CONSIDERATION OF BID:

When, in the CPO's opinion, the best interest of the City will be served, the CPO may, in his sole discretion, reject any or all bids or disregard any informality in the bids or bidding process.

11. BALANCED BIDS:

Bidder's pricing for each line item must carry its full share of the cost of work, plus its share of overhead and profit. Bidders should avoid nominal pricing for some lines and enhanced pricing for other lines. The CPO reserves the right to reject any bid that is materially unbalanced.

12. PERFORMANCE AND PAYMENT BOND:

- a. The successful Bidder or Bidders shall, within five (5) calendar days of receipt of written notice from the City, furnish a Performance and Payment Bond in the amount of 100% of the contract value on Contractor's Performance and Payment Bond, a specimen which is found herein on page S5-59. Such bond must comply with the provisions of 30 ILCS 550/1 et seq., as amended, and Chapter 2, Section 2-92-030 of the Municipal Code of the City, as amended. The Performance and Payment Bond must be in the form provided by the CPO and issued by a surety that is satisfactory to the CPO and the City Comptroller in accordance with Section XVI., B., 1 of Part Two of the Contract Documents.
- b. If the Performance and Payment Bond is not so furnished, the bid will be rejected and the bid deposit will be forfeited to the City. The forfeiture shall not limit any other City remedies against the Bidder.

NOTE: Section 2-92-040 of the Municipal Code of the City of Chicago requires that the Contractor's surety be listed as a certified surety in the current edition of U.S. Treasury Department Circular 570 and have an underwriting limitation in that publication in an amount equal to or greater than the amount bid by the Contractor. This Circular 570 is available on the Internet at www.fms.treas.gov/c570. Co-sureties may be accepted in the sole discretion of the CPO, but each co-sureties must individually meet the foregoing requirement. Reinsurance may not be used to achieve a sufficient underwriting limitation.

13. INTERPRETATION OF CONTRACT DOCUMENTS:

- a. If any Bidder, prior to the bid opening, has a question as to the meaning of any part of the specifications or other Contract Documents, **the Bidder must send questions to the e-mail address as listed on the Pre-Bid Conference Notice page of this Part One.** All questions must be submitted no later than 5:00 P.M. C.S.T. on [insert date], year or no response will be provided except at the discretion of the CPO.
- b. Bidders may only rely upon written addenda issued by the CPO. Oral explanations or interpretations will not be binding on the City.
- c. The order of precedence of the component parts of the Contract Documents shall be as follows:
 1. General Conditions
 2. Remaining paragraphs of Requirements for Bidding and Instructions for Bidders
 3. All other Contract DocumentsThe foregoing order of precedence shall govern the interpretation of the Contract in all cases of conflict or inconsistency therein.
- d. In the event of conflict or inconsistency between the Contract Documents as provided to the Bidder on CD and the Official Printed Copy of the Contract Documents, the Official Printed Copy shall take precedence.

14. SUBSTITUTION:

Reference to a specific manufacturer, trade name, or catalog is intended to be descriptive but not restrictive and only to indicate to the Bidder items that will be satisfactory. The Bidder must, if awarded the Contract, provide the items specified in the Contract Documents when those items are specified by manufacturer's trade name in Part Three of the Contract Documents, unless equivalent alternatives have been proposed as described below. The Bidder may bid another product(s) provided that the alternative product is on a separate sheet of paper designated as such and is supported by the type of information listed in Section VI. E. 3.b. and c. of the General Conditions, in order to facilitate the CPO's evaluation of such product. The CPO may, in his sole discretion, accept an alternate bid for a specified item, provided the alternate item so bid is, in the CPO's sole opinion, the equivalent of the item specified in the Contract Documents. An alternate that is not equivalent to the specified item may render the bid non-responsive. Unless the alternate item is so identified, it is understood that the Bidder proposes, and will be required to provide, the specific item described in the Contract Documents. No substitution of specified items will be allowed thereafter except as provided in Section VI., E., 3. of the General Conditions.

15. TAXES:

With few exceptions, materials purchased by the City of Chicago are not subject to the Federal Excise Tax. The Illinois Retailers' Occupation Tax, Use Tax, and Municipal Retailers' Occupation Tax do not apply to materials or services purchased by the City of Chicago.

Bidders shall include all other applicable federal, state and local taxes, direct or indirect, in their Bid Prices.

16. INSURANCE:

Receipt of a satisfactory and duly executed certificate of insurance is a condition precedent to the award of the Contract however, Bidders are not required to submit the certificate of insurance with their bid. The certificate of insurance found herein must be executed by an insurance company authorized to do business in the State of Illinois and acceptable to the City in accordance with the insurance requirements set forth in Section 2 of Part One. The insurance certificate must list, at a minimum, the types and limits of insurance set forth herein under the Contract Insurance Requirements.

17. AFFIDAVIT OF UNCOMPLETED WORK:

Bidders are required to submit, together with their bid, a complete and properly executed "Affidavit of Uncompleted Work" found herein on page S5-49, showing all uncompleted contracts either as a contractor or subcontractor.

18. CITY-BASED BUSINESSES (CHICAGO BUSINESS PREFERENCE):

For purposes of this section only, the following definitions shall apply:

“City-based business” means a person who (i) conducts meaningful day-to-day business operations at a facility located within the city and reports such facility to the Internal Revenue Service as a place of employment for the majority of its regular, full-time workforce; (ii) holds all appropriate city licenses; and (iii) is subject to applicable city taxes. These taxes may include the City Wheel Tax as provided at Chapter 3-56 of the MCC.

“City residents,” as defined in Section 2-92-330 of the MCC, means persons domiciled within the city.

“Contract” means any contract, purchase order or agreement awarded by the city and whose cost is to be paid from funds belonging to or administered by the city; provided that the term “contract” does not include: (i) a delegate agency contract; (ii) a lease of real property; or (iii) a collective bargaining agreement.

“Prime Contractor” means a person who is a city-based business and the primary contractor on a contract. A “Prime Contractor” does not include any subcontractors.

“City resident employee” means an individual who resides in the City and who is employed by a prime contractor in a permanent, full-time employment and whose work is not counted towards the work hours required by Section 2-92-330.

“Socio-economically disadvantaged area” means an area within the City that meets the criteria for designation as a socio-economically disadvantaged area as set forth in rules promulgated by the City's Commissioner of Planning and Development pursuant to Section 2-92-390.

If these Bid Documents pertain to a Contract having an estimated contract value of \$100,000 or more, the CPO may apply a bid preference (“City Based Business Preference”) of: (i) four percent of the contract base bid; or (ii) six percent of the contract base bid, if the majority of such prime contractor's employees are city resident employees; or (iii) eight percent of the contract base bid, if such prime contractor is eligible for an incentive under subsection (ii) and the majority of such contractor's city resident employees are residents of a socio-economically disadvantaged area, in accordance with section 2-92-412 of the MCC, to any qualified bidder that is a Prime Contractor. If the CPO has determined that a City Based Business Preference may be applied, it will be indicated on the cover page of the Bid Documents.

If a City Based Business Preference is applied to a Bidder's Bid, the Local Goods Incentive pursuant to Section 2-92-410 of the MCC will not be applied to that same Bid.

Bidders desiring to take advantage of the City Based Business Preference must submit documentation with their Bid that Bidder is a City-Based Business.

CITY-BASED BUSINESS AFFIDAVIT

The City-Based Business bid preference of 4%, 6%, or 8%, as described in Section 2-92-412 of the Municipal Code of Chicago ("MCC"), is applicable to competitively bid Contracts funded in whole by City funds. Bidder must complete this form, and provide a copy of its Chicago business license(s) if applicable, if it desires to be considered for this preference. Bidders that do not complete this page will not be regarded as City-Based Businesses. Bidder understands that it may be required to produce records to the chief procurement officer to verify the information provided. If bidder's operations are at multiple locations in the City of Chicago, use additional sheets if necessary. If this preference is allocated, the Local Goods Incentive described in MCC 2-92-410 will not be allocated to the same bid.

1. Of the three following bid preference options from 2-92-412, check the one option that Bidder qualifies for and wishes to apply to this Bid:
 - 4% Bidder is a City-based business.
 - 6% Bidder meets 4% requirements and majority of Prime Contractor's employees are City resident employees and if applicable are not counted towards work hours required by Section 2-92-330.
 - 8% Bidder meets 6% requirements and majority of Prime Contractor's City resident employees are residents of a socio-economically disadvantaged area and are not counted towards work hours required by Section 2-92-330.
2. Is bidder a "City-Based Business" as defined in the Requirements for Bidding and Instructions for Bidders portion of this bid solicitation and in MCC 2-92-412? Yes No
3. Does the bidder report to the Internal Revenue Service that the place of employment for the majority (more than 50%) of its regular, full-time workforce is a facility within the City of Chicago? Yes No
3. Does the bidder conduct meaningful day-to-day business operations at a facility within the City of Chicago?
 - Yes No
4. Street address of business location within the City of Chicago (P.O. address not accepted):

5. Describe the business activities are carried out at the location listed above: _____

6. How many full-time regular employees are currently employed at the location listed above? _____
7. How many full-time regular employees at the location listed above are "City resident employees," as that term is defined in this bid solicitation and MCC 2-92-412? _____(for 6% and 8% preferences only)
8. How many of Bidder's full-time City resident employees identified above are residents of a socio-economically disadvantaged area, as that term is defined in this bid solicitation and MCC 2-92-412? _____ (for 8% preference only)
9. Total number of full-time regular employees employed at all locations worldwide? _____
10. List City of Chicago business license(s) held; attach copies. If none are required, indicate "none required":

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Bidder (Print or Type): _____

Signature of Authorized Officer (Sign): _____

Date: _____

Title of Signatory (Print or Type): _____

State of _____; County of _____; Signed and sworn (or affirmed) to before me on _____ (date) by _____ (name/s of person/s making statement)

(Signature of Notary Public)

(seal)

19. COMPLIANCE WITH CHILD SUPPORT ORDERS ORDINANCE:

The Child Support Arrearage Ordinance, Municipal Code of Chicago, Section 2-92-415, furthers the City's interest in contracting with entities which demonstrate financial responsibility, integrity and lawfulness, and finds that it is especially inequitable for contractors to obtain the benefits of public funds under City contracts while its owners fail to pay court-ordered child support, and shift the support of their dependents onto the public treasury.

In accordance with Section 2-92-415 of the Municipal Code of Chicago, if an Illinois court of competent jurisdiction has issued an order declaring one or more Substantial Owner in arrearage on their child support obligations and: (1) a one such Substantial Owner has not entered into a court-approved agreement for the payment of all such child support owed, or (2) a Substantial Owner is not in compliance with a court-approved agreement for the payment of all such child support owed, (see Certification of Compliance with Child Support Orders in Contractor's Affidavit), then:

For those bidders in competitive bid contracts, the City shall assess an eight percent (8%) penalty. This penalty shall increase their bid price for the purpose of canvassing the bids in order to determine the lowest responsible bidder. This penalty shall apply only for purposes of comparing bid amounts and shall not affect the amount of any contract payment.

For purposes of this Section, "**SUBSTANTIAL OWNER**" means any person who owns or holds a ten percent (10%) or more percentage of interest in the bidder; where the bidder is an individual or sole proprietorship, Substantial Owner means that individual or sole proprietor.

"**PERCENTAGE OF INTEREST**" includes direct, indirect and beneficial interests in the Contractor. Indirect or beneficial interest means that an interest in the Contractor is held by a corporation, joint venture, trust, partnership, association, estate or other legal entity, in which the individual holds an interest, or by agent(s) or nominee(s) on behalf of an individual or entity. For example, if Corporation B holds or owns a twenty percent interest in Contractor and an individual or entity has a fifty percent or more percentage interest in Corporation B, then such individual or entity indirectly has a ten percent or more percentage of interest in the Contractor. If Corporation B is held by another entity, then this analysis similarly must be applied to that next entity.

The provisions of this Section shall only apply where not otherwise prohibited by Federal, State or local law.

20. CHICAGO RESIDENCY REQUIREMENTS:

The Contract requires compliance with Chicago Residency Ordinance, Section 2-92-330 of the Chicago Municipal Code and Part Two, General Conditions of the Contract Documents.

21. ECONOMIC DISCLOSURE STATEMENT AND AFFIDAVIT (EDS):

The Contractor is required to complete an on-line Economic Disclosure Statement and Affidavit, (EDS), including the Economic Disclosure of Retained Parties as required by Executive Order 97-1 prior to the bid due date. Refusal to execute such disclosure will result in the CPO declaring the bidder non-responsible and the City retaining the bid deposit. Moreover, if a bidder is deemed non-responsible under this provision, the bidder's status as a non-responsible bidder may apply to the bidder's subsequent bids. See the attached instructions for completing the on-line EDS: The web link for the on-line EDS is: http://www.cityofchicago.org/city/en/depts/dps/provdrs/comp/svcs/economic_disclosurestatementseds.html

22. NON-APPROPRIATION OF FUNDS :

This Contract can be terminated upon thirty (30) days written notice by the CPO in the event that no funds or insufficient funds are appropriated and budgeted in any fiscal period of the City for payments to be made under this Contract. The City will notify the Contractor of such occurrence and this Contract shall terminate on the earliest of the last day of the fiscal period for which sufficient appropriation was made or whenever the funds appropriated for payment under this Contract are exhausted. No payments will be made or due to the Contractor under this Contract beyond those amounts appropriated and budgeted by the City to fund payments under this Contract.

23. MINIMUM QUALIFICATIONS:

References to a minimum number of years of experience found in Part Three of the Contract Documents, is for guidance only. The Contractor may use individuals, subcontractors, vendors, etc., with fewer years of experience than stated in the specification if the City determines that those individuals, subcontractors, vendors, etc., are qualified to perform.

24. ELECTRONIC ORDERING AND INVOICES:

The Contractor will cooperate in good faith with the City in implementing electronic ordering and invoicing, including but not limited to catalogs, purchase orders, releases, and invoices. Contractor will accept electronic purchase orders and releases upon request of the CPO. Contractor will provide the City electronic catalogs, copies of invoices and other electronic documents upon request. The electronic ordering and invoice documents will be in a format specified by the City and transmitted by an electronic means specified by the City. Such electronic means of transmission may include, but are not limited to, disks, e-mail, EDI, FTP, web sites, and third party electronic services. The CPO reserves the right to change the document format and/or the means of transmission upon written notice to the Contractor. Contractor will ensure that the essential information, as determined by the CPO, in the electronic document, corresponds to that information submitted by the Contractor in its paper documents. The electronic documents will be in addition to paper documents required by this Contract, however, by written notice to the Contractor, the CPO may deem any or all of the electronic ordering and invoice documents the official documents and/or eliminate the requirement for paper ordering and invoice documents.

25. COMMITMENT REGARDING BUSINESS ENTERPRISES OWNED BY PEOPLE WITH DISABILITIES (BEPD)

Policy and Terms

It is the policy of the City of Chicago that businesses certified as Business Enterprises owned by People with Disabilities (BEPD) in accordance with Section 2-92-337 *et seq.* of the Municipal Code of Chicago, Regulations Governing Certification of Business Enterprises owned by People with Disabilities, and all other Regulations promulgated under the aforementioned sections of the Municipal Code; shall have the full and fair opportunities to participate fully in the performance of this Agreement. Therefore, the Bidder or Contractor shall not discriminate against any person or business on the basis of disability, and shall take affirmative actions to ensure BEPDs shall have full and fair opportunities to compete for and perform subcontracts for supplies or services.

Failure to carry out the commitments and policies set forth herein shall constitute a material breach of the Contract and may result in the termination of the Contract or such remedy as the City of Chicago deems appropriate.

Definitions

(a) For purposes of this section only, the following definitions apply:

(1) "Business Enterprises owned by People with Disabilities" or "BEPD" has the same meaning ascribed to it in section 2-92-586.

(2) "Bid incentive" means an amount deducted, for bid evaluation purposes only, from the contract base bid in order to calculate the bid price to be used to evaluate the bid on a competitively bid contract.

(3) "Construction project" has the same meaning ascribed to it in section 2-92-335.

(4) "Contract" means any contract, purchase order, construction project, or other agreement (other than a delegate agency contract or lease of real property or collective bargaining agreement) awarded by the City and whose cost is to be paid from funds belonging to or administered by the City.

(5) "Contract base bid" means the total dollar amount a contractor bids on a contract without factoring any bid incentive or percentage reductions to the bid amount.

(6) "Earned credit" means the amount of the bid incentive allocated to a contractor upon completion of a contract in which the contractor met or exceeded his or her goals for the utilization of BEPDs in the performance of the contract.

(7) "Earned credit certificate" means a certificate issued by the Chief Procurement Officer evidencing the amount of earned credit a contractor has been awarded.

Commitments

(b) The Chief Procurement Officer shall award a bid incentive to Contractor for utilization of a BEPD as a prime contractor or subcontractor in accordance with the provisions of this section. The bid incentive shall be earned in the performance of the Contract, provided that the bid incentive earned in the performance of the Contract shall only be applied

to a future contract.

(c) (1) Where not otherwise prohibited by federal, state, or local law, the Chief Procurement Officer shall allocate to any qualified bidder the following bid incentive for utilization of a BEPD as a prime contractor or subcontractor in the performance of the contract.

| % of total dollar contract amount performed by BEPD | Bid incentive |
|---|-----------------------------|
| 2 to 5% | ½% of the contract base bid |
| 6 to 10% | 1% of the contract base bid |
| 11% or more | 2% of the contract base bid |

The bid incentive shall be calculated and applied in accordance with the provisions of this section. The bid incentive is used only to calculate an amount to be used in evaluating the bid. The bid incentive does not affect the contract price.

(2) As part of the contract close-out procedure, if the Chief Procurement Officer determines that the Contractor has successfully met his or her BEPD utilization goals either as a prime contractor or with subcontractors, the Chief Procurement Officer shall issue an earned credit certificate that evidences the amount of earned credits allocated to the Contractor. The Contractor may apply the earned credits as the bid incentive for any future contract bid of equal or less dollar amount. The earned credit certificate is valid for three years from the date of issuance and shall not be applied towards any future contract bid after the expiration of that period.

The Contractor may apply the earned credit certificate on multiple future contract bids during the three-year period in which the certificate is valid, but may only receive one bid incentive for bid evaluation purposes on one contract award. If the Contractor applies the earned credit certificate on multiple contract bids and is the lowest responsive and responsible bidder on more than one contract bid, the earned credit certificate shall be applied to the contract bid first to be advertised by the Department of Procurement Services, or if multiple contract bids were advertised on the same date, the earned credit certificate shall be applied only to the contract bid with the greatest dollar value.

(d) The Contractor shall maintain accurate and detailed books and records necessary to monitor compliance with this section and shall submit such reports as required by the Chief Procurement Officer, or the commissioner of the supervising department.

Full access to the Contractor's and Subcontractor's records shall be granted to the Chief Procurement Officer, the commissioner of the supervising department, or any duly authorized representative thereof. The Contractor and Subcontractors shall maintain all relevant records for a period of at least three years after final acceptance of the work.

(e) The Chief Procurement Officer is authorized to adopt, promulgate and enforce reasonable rules and regulations pertaining to the administration and enforcement of this section.

BIDDER'S COMMITMENT TO UTILIZE BUSINESS ENTERPRISES OWNED BY PEOPLE WITH DISABILITIES (BEPD)

The BEPD Incentive as described in Section 2-92-337 of the Municipal Code of Chicago ("MCC") is applicable to competitively bid contracts funded in whole by City funds. Bidder must submit this form with the bid if it desires to be considered for this bid incentive. Bidders that do not submit this page with their bid will not be eligible for this bid incentive. Attach additional sheets if necessary.

Note: The CPO may request additional information or documentation before determining to apply the preference.

1. Contract title: _____
Specification #: _____

2. The value of work performed by BEPD prime contractors or subcontractors (as defined in MCC 2-92-586 and the applicable bid solicitation) that Bidder commits to provide will be what percentage of the total dollar value of the contract?

- () 2% to 5%-- 1% incentive () 6% to 9%-- 2% incentive
- () 10% to 13%-- 3% incentive () 14% or greater-- 4% incentive

Bidder understands that if it fails to utilize the committed percentage of BEPD subcontractors, under MCC 2-92-337 it may be fined in an amount equal to three times the amount of the bid incentive allocated, unless the prime contractor can demonstrate that due to circumstances beyond the prime contractor's control, the prime contractor for good cause was unable to retain the percentage of BEPD subcontractors throughout the duration of the contract period.

Bidder understands that it may be required to produce records to the CPO to verify the information provided.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Bidder: _____
(Print or Type)

Signature of Authorized Officer: _____
(Signature)

Title of Signatory: _____
(Print or Type)

State of _____
County of _____ Signed
and sworn (or affirmed) to before me on _____ (date) by
_____ (name/s of person/s making statement).

(Signature of Notary Public)
(Seal)

26. APPRENTICE ORDINANCE (Section 2-92-335 of the Chicago Municipal Code – amended as of September 05, 2007)

(a) For purposes of this section only the following definitions apply:

"Apprentice" means any person who is: (1) sponsored into an apprenticeship training program by a contractor that is authorized by a union to sponsor apprentices; and (2) enrolled in, or has graduated from, a construction technology training program administered by the City Colleges of Chicago. The union's apprenticeship training program must be registered with the United States Department of Labor, or approved or recognized by the State of Illinois.

"Bid incentive" means an amount deducted, for bid evaluation purposes only, from the contract base bid in order to calculate the bid price to be used to evaluate the bid on a competitively bid construction project.

"Construction project" means any project to be paid for by the City's Department of Procurement Services, but which is not funded in whole or part by any Federal or State funds, to construct, remodel or reconstruct any public works, public buildings, public structures, roadways, parkways, bridges, parking facilities or parks, or any portion of any of the same, belonging to the City within its geographical boundaries as they exist or shall exist in the future.

"Contract base bid" means the total dollar amount a contractor bids on a construction project without factoring any bid incentive or percentage reductions to the bid amount.

"Earned credit" means the amount of the bid incentive allocated to a contractor upon completion of a construction project in which the contractor met or exceeded his or her goals for the utilization of apprentices in performance of the total labor hours performed under the contract.

"Earned credit certificate" means a certificate issued by the Chief Procurement Officer evidencing the amount of earned credit a contractor has been awarded.

"Labor hours" means the total hours of workers receiving an hourly wage who are directly employed at the work site. "Labor hours" shall include hours performed by workers employed by the contractor and all subcontractors working at the work site. "Labor hours" shall not include hours worked by non-working foremen, superintendents, owners and workers who are not subject to prevailing wage requirements.

(b) (1) For any construction project advertised having an estimated contract value of \$100,000.00 or more, and where not otherwise prohibited by federal, state or local law, the Chief Procurement Officer shall allocate to any qualified bidder the following bid incentive for utilization of apprentices in performance of the total labor hours performed under contract.

| Percentage of Total Labor Hours Performed By Apprentices | Bid Incentive |
|--|-------------------------------|
| 5 to 10% | 1/2% of the contract base bid |
| 11 to 15% | 1% of the contract base bid |

The bid incentive shall be calculated and applied in accordance with the provisions of subsection (b) (2). The bid incentive is used only to calculate an amount to be used in evaluating the bid. The bid incentive does not affect the contract price.

(2) As part of the contract close-out procedure, if the Chief Procurement Officer determines that the contractor has successfully met his or her apprentice utilization goals, the Chief Procurement Officer shall issue an earned credit certificate that evidences the amount of earned credits allocated to the contractor. The contractor may apply the earned credits as the bid incentive for any future construction project contract bid of equal or greater dollar value.

The earned credit certificate is valid for **three (3) years** from the date of issuance and shall not be applied towards any future contract bid after the expiration of that period.

The contractor may apply the earned credit certificate on multiple future construction project contract bids during the three year period in which the certificate is valid, but may only receive one bid incentive for bid evaluation purposes on one construction project contract award. If the contractor applies the earned credit certificate on multiple construction project bids and is the lowest responsive and responsible bidder on more than one construction project bid, the earned credit certificate shall be applied to the construction project first to be advertised by the Department of Procurement Services, or if multiple construction project bids were advertised on the same date, the earned credit certificate shall be applied only to the construction project with the greatest dollar value.

(c) The contractor shall maintain accurate and detailed books and records necessary to monitor compliance with this section and shall submit such reports as required by the Chief Procurement Officer, or the commissioner of the supervising department.

Full access to the contractor's and subcontractors' records shall be granted to the Chief Procurement Officer, the commissioner of the supervising department, or any duly authorized representative thereof. The contractor and subcontractors shall maintain all relevant records for a period of at least three (3) years after final acceptance of the work.

(d) The Chief Procurement Officer is authorized to adopt, promulgate and enforce reasonable rules and regulations pertaining to the administration and enforcement of this section.

The Bidder must use Schedule AP to notify the Department of Procurement Services that the Bidder plans on using this Contract for earned credit.

For more information regarding this ordinance please contact the Department of Procurement Services at (312) 744-4900.

27. SUBCONTRACTOR PAYMENTS:

Contractor must submit a status report of Subcontractor payments monthly for the duration of the contract on the "Subcontractor Payment Certification" form required by the City. The form can be downloaded from the City's website at http://egov.cityofchicago.org/webportal/COCWebPortal/COC_EDITORIAL/subcompliance_2.pdf. The form must be received by the tenth (10th) day of each month. The statement must list the following for Contractor and for each Subcontractor and supplier for the period for which payment is requested:

- i) Total amount invoiced by the Contractor for the prior month;
- ii) The name of each particular Subcontractor or supplier utilized during the prior month;
- iii) Indication if the Subcontractor or supplier is acting as an MBE, WBE, DBE, or non-certified firm on this contract;
- iv) The vendor/supplier number of each Subcontractor or supplier;
- v) Total amount invoiced that is to be paid to each Subcontractor or supplier.

28. BID PROTEST PROCEDURES

Any Bidder desiring to protest these procedures and the eventual award of a Contract must file such protest in accordance with the City's "Solicitation and Contracting Process Protest Procedures" available at:

City Hall
Bid and Bond Room
Room 103
121 North LaSalle
Street Chicago, IL
60602

Or at the City's Website at:

http://www.cityofchicago.org/city/en/depts/dps/provdrs/contract/svcs/solicitation_andcontractingprocessprocedures.html

29. REGULATIONS OF THE DEPARTMENT OF PROCUREMENT SERVICES FOR PERCENTAGES OF CITY AND PROJECT AREA RESIDENTS WORKING HOURS

A. GENERAL PROVISIONS

1. Statement of Authority

These regulations are issued pursuant to the following Section of the Municipal Code of Chicago:

Section 2-92-330 of Municipal Code of Chicago establishes a minimum number of hours to be performed by City Residents as well as a minimum number of hours to be performed by Project Area residents. Subsection (a) requires the Chief Procurement Officer to “develop standards and procedures for reducing or waiving these minimum percentages level of Chicagoans work hours for eligible residents when a bidder or contractor can demonstrate the impracticality or excessive cost of complying with these percentage levels for particular contracts or classes of employees.” Subsection (f) authorizes the Chief Procurement Officer to “adopt, promulgate and enforce reasonable rules and regulations pertaining to the administration and enforcement” of the Section.

Subsection (a) provides that, for any construction project advertised, or if not advertised, awarded, by the City that has an estimated contract value of \$100,000 or more, and where not otherwise prohibited by federal, state or local law, the total hours worked by persons on the site of the construction project by employees of the contractor and subcontractors shall be performed (i) at least 50 percent by City Residents; and (ii) at least 7.5 percent by Project Area residents. Work hours performed by Project Area residents shall be considered to be work hours performed by City Residents for purposes of calculating the minimum work hour percentage required to be performed by City Residents.

2. Application and Statement of Purpose

These regulations describe how the ordinance will be administered and enforced, including the right of the Chief Procurement Officer to waive the residency requirement.

B. DEFINITIONS

Unless otherwise specified, whenever used in these regulations, the following terms have the following meanings:

“City Residents” means persons domiciled within the City of Chicago.

“Contract” means a City funded construction project as defined by Section 2-92-670(e) of the Municipal Code of Chicago.

“Domicile” means an individual’s one and only true, fixed and permanent home and principal establishment.

“Eligible residents” means City Residents and Project Area residents.

“Project Area residents” means persons domiciled within that part of the city designated as the Project Area in the Information for Bidders issued by the Department of Procurement Services (“DPS”).

C. PROCEDURES

1. Percentages of City and Project Area residents’ worker hours

Unless otherwise prohibited by federal, state or local law, for any construction project advertised, or if not advertised, awarded, by the City that has an estimated contract value of \$100,000 or more, the total hours worked by persons on the site of the construction project by employees of the contractor and subcontractors shall be performed (i) at least 50 percent by City Residents; and (ii) at least 7.5 percent by Project Area residents. Work hours performed by Project Area residents shall be considered to be work hours performed by City Residents for purposes of calculating the minimum work hour percentage required to be performed by City Residents.

2. Purpose and Effect of the requirement

The purpose of the requirement is to provide increased employment opportunities for City Residents and residents in the localities surrounding City construction projects and, as a result, will be beneficial to the City's economy by creating jobs and generating revenue that will help stimulate the community that work is being performed in as well as the economy of the City as a whole.

3. Project Area definition

Project Areas will be defined using the 77 City of Chicago "Community Areas", as such areas are designated in section 1-14-010 of Municipal Code of Chicago. Prior to requesting that DPS place an advertisement for the project, a department must first make a request to the Chief Procurement Officer for approval of the Project Area. The department must plot the project site onto a map of the Community Areas to determine what Community Area the project is in.

When the project is close to the border of an area, the department should also identify the adjacent Community Area as part of the Project Area. The department must also include the size, duration and scope of the project into its calculations. Project Area hiring for short, small projects would likely be limited to those initial 1 or 2 Project Areas. For larger, longer term projects (i.e. with potentially more job opportunities to fill), departments may look at the appropriateness of expanding the Project Area by adding adjacent Community Areas. A calculation of available resident labor in the Community Areas should be made to see if the Project Area should be expanded. This calculation may include: zoning information (is the area industrial or are there sufficient residents in the area to support the hiring requirement), local chamber of commerce data, and information on the availability of skilled trades or union members in the area. The Chief Procurement Officer will then approve the Project Area for inclusion in the bid.

4. Waiver

Contractors that can demonstrate the impracticality or excessive cost of complying with these percentage levels for particular contracts or classes of employees may apply for a waiver or reduction. A waiver or reduction shall be deemed appropriate if a contractor or subcontractor has unsuccessfully solicited a sufficient number of eligible City Residents to perform the work identified in the bid solicitation and has documented such effort to the satisfaction of the Chief Procurement Officer. The Chief Procurement Officer will consider good faith efforts to meet the residency requirements as appropriate for reducing or waiving the minimum percentages of work hours for the eligible residents' requirement at the close out of the contract. The contractor must submit sufficient documentation to support any request for a reduction or waiver of the goals.

Waiver or reduction requests for the 7.5 percent Project Area resident requirements must be submitted separately from any waiver or reduction request for the 50 percent overall Chicago residency requirement. A waiver or reduction of the Project Area requirements does not constitute any reduction of the requirement that 50 percent of the total project hours be performed by City Residents unless the Chief Procurement Officer has granted an express waiver of that requirement as well.

5. Penalties

When work is completed, in the event the City has determined the contractor failed to ensure the fulfillment of the requirements of this section concerning the worker hours performed by eligible residents or has failed to report in the manner as indicated above, the City will be damaged in the failure to provide the benefit of demonstrable employment to eligible residents to the degree stipulated in this section. Therefore, in such a case of non-compliance, 1/20 of 1 percent (.05%), 0.0005, of the approved contract value for this contract shall be surrendered by the contractor to the City in payment for each percentage of shortfall toward the stipulated residency requirement.

Failure to report the residency of employees entirely and correctly shall result in the surrender of the entire liquidated damages as if no eligible residents were employed in either of the categories. The willful falsification of statements and the certification of payroll data may subject the contractor or subcontractors or employee to prosecution.

Any retainage to cover contract performance that may become due to the contractor pursuant to Section 2-92-250 of the Municipal Code of Chicago may be withheld by the City pending the Chief Procurement Officer's determination whether the contractor must surrender damages.

D. FINAL DECISION

The Chief Procurement Officer or her designee shall make the final determination regarding the establishment of a Project Area or waiver or reduction of any of the goals set forth in this ordinance.

E. PROJECT AREA FOR CONSTRUCTION AT O'HARE INTERNATIONAL AIRPORT

The Project Area for construction at O'Hare International Airport is defined as:

- Norwood Park
- Edison Park
- Jefferson Park
- Dunning
- Forest Glen
- Portage Park

Good faith efforts shall be made to ensure the total hours worked by persons on the site of the construction project by employees of the contractor and subcontractors shall be performed (i) at least 50 percent by City Residents; and (ii) at least 7.5 percent by Project Area residents from the Project Areas listed above.

F. COMMUNITY AREA MAP



30. BID INCENTIVE FOR ALTERNATIVELY POWERED VEHICLES

A. **DEFINITIONS**

For purposes of this section only, the following definitions apply:

“Alternative fuel” has the meaning ascribed to that term in the Energy Policy Act of 1992, and the rules promulgated by the United States Department of Energy pursuant to that Act. The term “alternative fuel” includes but is not limited to natural gas, liquefied petroleum gas, hydrogen ethanol E85 or electricity.

“Alternately powered vehicle” means a vehicle that:

- (1) is fueled by alternative fuel; provided that if a vehicle is capable of being powered by alternative fuel and traditional petroleum-based gasoline or petroleum-based diesel fuel, the vehicle must be powered by the alternative fuel for no less than 80% BTUs consumed during the three months prior to the submission or the bid; or
- (2) is commonly referred to as a hybrid vehicle that is capable of being powered by a combination of any fuel and an alternative power source and the alternative power source includes an energy storage system to store generated or accumulated energy which substantially reduces the fuel use and emissions when compared to a standard vehicle of the same age, type and size; or
- (3) is fueled by a biodiesel blend; provided the vehicle is powered by the biodiesel blend for no less than 80% of the gallons consumed during the three months prior to the submission of the bid; or
- (4) is fueled by traditional petroleum-based gasoline or petroleum-based diesel fuel, but powered by an engine substantially more efficiently designed than a standard vehicle of the same age, type and size, provided the vehicle is rated by the United States Environmental Protection Agency in the top 5% for fuel efficiency for similar vehicles.

An “alternately powered vehicle” does not include any vehicle which is: (i) primarily used in a warehouse or similar type of enclosed structure; (ii) required to use, or given credit for using, alternative fuel by any federal, state or local law; or (iii) subject to Section 2-92-595 of the Municipal Code of Chicago.

“Bid incentive” means an amount deducted, for bid evaluation purposes only, from the contract base bid in order to calculate the bid price to be used to evaluate the bid on a competitively bid contract.

“Biodiesel blend” has the meaning ascribed to that term in Section 2-92-595 of the Municipal Code of Chicago.

“Construction project” has the meaning ascribed to that term in Section 2-92-335 of the Municipal Code of Chicago.

“Contract” means any contract, purchase order, construction project, or other agreement (other than a delegate agency contract or lease of real property or collective bargaining agreement) awarded by the City and whose cost is to be paid from funds belonging to or administered by the City.

“Contract base bid” means the total dollar amount a contractor bids on a contract without factoring any bid incentive or percentage reductions in the bid amount.

“Eligible business” means a business located within the counties of Cook, DuPage, Kane, Lake, McHenry or Will in the State of Illinois (the “Six County Region”), and as to which: (1) a majority of the business’ fleet is located and used within the Six County Region; and (2) a majority of those vehicles located and used within the Six County Region are alternately powered vehicles.

“Fleet” means 10 or more vehicles owned, operated, leased or otherwise controlled by a business.

“Vehicle” means every device powered by a motor or engine and by, upon, or in which any person or property is or may be transported or drawn upon a street or highway, except a “vehicle” shall not include motorized wheelchairs, golf carts, neighborhood electric vehicles, as that term is defined in Section 9-4-010 of the Municipal Code of Chicago, devices

moved solely by human power, devices used exclusively upon stationary rails or tracks, or snowmobiles, as defined in the Snowmobile Registration and Safety Act of Illinois.

B. BID INCENTIVE

Unless otherwise prohibited by any federal, state or local law, for any contract having an estimated contract value of \$100,000 or more advertised, or if not advertised, awarded, the Chief Procurement Officer shall allocate a bid incentive of ½% of the contract base price to a qualified bidder when the qualified bidder is an eligible business.

The bid incentive is used only to calculate an amount to be used in evaluating the bid to determine the low bidder, and it does not affect the contract price.

For the purposes of this section, the total dollar value of a construction project contract includes both material and labor.

C. CONDITIONS

As a condition of being awarded the bid incentive, the eligible business shall continue to meet the definition of an eligible business during the term of the contract.

D. RECORD KEEPING

The contractor shall maintain adequate records necessary to monitor compliance with this section and shall submit such reports as required by the Chief Procurement Officer. Full access to the contractor's and subcontractors' records shall be granted to the Chief Procurement Officer, the Commissioner of the supervising department, the Inspector General, or any duly authorized representative thereof. The contractor and subcontractors shall maintain all relevant records for a period of no less than seven years after final acceptance of the work.

E. AFFIDAVIT OF ELIGIBLE BUSINESS

A bidder desiring to receive an incentive pursuant to this section shall include with its bid submission the Affidavit of Eligible Business for Bid Incentive for Alternative Powered Vehicles, which affirms the bidder satisfies all pertinent requirements as an eligible business.

F. PENALTIES

Upon completion of the work, any eligible business that receives a bid preference but fails to meet the definition of an eligible business during the term of the contract shall be fined in an amount equal to three times the amount of the bid incentive awarded.

G. APPLICATION OF SECTION

This section shall not apply to any contract to the extent the requirements imposed by this section are inconsistent with procedures or standards required by any law or regulation of the United States or the State of Illinois to the extent such inconsistency is not permitted under law or the home rule powers of the City.

**AFFIDAVIT OF ELIGIBLE BUSINESS FOR
BID INCENTIVE FOR ALTERNATIVELY POWERED VEHICLES**

If this is a competitively bid Contract funded in whole by City funds, an Eligible Business preference for alternatively powered vehicles may be applicable. Bidder must complete this form if it desires to be considered for this preference. Bidders who do not complete and submit this form with their bid will be deemed to be non-Eligible Businesses.

1. Is bidder a business located within the counties of Cook, DuPage, Kane, Lake, McHenry or Will in the State of Illinois (the "Six County Region")?

() Yes () No

2. Street address of principal place of business:

3. How many total vehicles, as defined in the Terms and Conditions, Bid Incentive for Alternatively Powered Vehicles, are currently owned, operated, leased or otherwise controlled by bidder?

Line 3(a): _____

4. How many of bidder's vehicles are located and used within the Six County Region?

Line 4(a): number of vehicles _____

Line 4(b): percentage of fleet (line 4(a) divided by line 3(a)) _____ %

5. How many of bidder's vehicles located and used within the Six County Region are alternatively powered vehicles, as defined in the Terms and Conditions, Bid Incentive for Alternatively Powered Vehicles?

Line 5(a): number of vehicles _____

Line 5(b): percentage of Six County fleet (line 5(a) divided by line 4(a)) _____ %

Bidder understands that it may be required to produce records to the chief procurement officer to verify the information provided herein.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date hereof.

Name of Bidder

By: _____

Printed Name: _____

Title: _____

Signed and sworn to before me on (date) _____, at County of _____, _____ (State).

Notary Public

Commission expires: _____

31. BID INCENTIVE FOR VETERAN - OWNED SMALL LOCAL BUSINESSES AND ELIGIBLE JOINT VENTURES

A. Bid Incentives for Veteran-Owned Small Local Businesses and Eligible Joint Ventures

(1) Definitions

For purposes of this section only, the following definitions shall apply:

"Bid incentive" means an amount deducted, for bid evaluation purposes only, from the contract base bid in order to calculate the bid price to be used to evaluate the bid on a competitively bid contract.

"Contract base bid" means the total dollar amount a contractor bids on a contract without factoring any bid incentive or percentage reductions to the bid amount.

"Eligible joint venture" means an association of one or more small local business enterprises in combination with one or more veteran-owned business enterprises, proposing to perform as a single for-profit business enterprise, in which each joint venture partner contributes property, capital, efforts, skill and knowledge. Joint ventures must have an agreement in writing specifying the terms and conditions of the relationship between the partners and their respective roles in the contract.

"Local business enterprise" means a business entity located within the counties of Cook, DuPage, Kane, Lake, McHenry or Will in the State of Illinois (the "Six County Region"), which has the majority of its regular, full time work force located within the Six County Region.

"Owned" means having all of the customary incidents of ownership, including the right of disposition, and sharing in all of the risks, responsibilities and profits commensurate with the degree of ownership.

"Prime contractor" means a person who is the primary contractor on a contract.

"Small business enterprise" means: (i) for a construction business enterprise, a small business enterprise, as the term is defined in MCC 2-92-670; or (ii) for a non-construction business enterprise, a business enterprise which is not an established business, as the term is defined in MCC 2-92-640.

"Small local business enterprise" ("SBE") means a local business enterprise which is also a small business enterprise.

"Veteran-owned business enterprise" means an enterprise which: (1) is at least 51 percent owned by one or more veterans, or in the case of a publicly held corporation, at least 51 percent of all classes of the stock of which is owned by one or more veterans, whose management, policies, major decisions and daily business operations are independently managed and controlled by one or more veterans; and (2) has been: (i) certified by the City as a veteran-owned small local business pursuant to MCC 2-92-930; (ii) certified by the County of Cook as a veteran business enterprise; (iii) certified by the State of Illinois as a qualified service-disabled veteran-owned small business or a qualified veteran-owned small business pursuant to 30 ILCS 500/45-57; or (iv) verified and approved by the United States Department of Veterans Affairs as a service-disabled veteran-owned small business or a veteran-owned small business.

"Veteran-owned small local business" ("VBE") means a business that is both a veteran-owned business enterprise and a small local business enterprise, and which has been certified by the City as a veteran-owned small local business pursuant to MCC 2-92-930.

"Veteran" means a person who has served in the United States armed forces and was discharged or separated under honorable conditions.

(2) Bid Incentive

Unless otherwise prohibited by any federal, state or local law, the CPO shall allocate a bid incentive of 5% of the contract base price, in accordance with section 2-92-950 of the MCC, to any qualified bidder that is a veteran-owned small local business or an eligible joint venture.

The bid incentive is used only to calculate an amount to be used in evaluating the bid to determine the low bidder, and it does not affect the contract price.

Bidders desiring to receive this incentive must submit an affidavit and other supporting documents demonstrating that the bidder satisfies all pertinent requirements as a veteran-owned small local business or an eligible joint venture. Bidders should consult the DPS regulations regarding this incentive and be prepared to comply with the self-performance requirements, which in some circumstances affect the calculation of MBE and WBE participation toward contract goals when a small business enterprise involved in receiving this incentive is also a certified MBE or WBE.

As a condition of being awarded the bid incentive, the veteran-owned small local business or eligible joint venture shall continue to meet the definition of a veteran-owned small local business or an eligible joint venture. If a contract is awarded to the veteran-owned small local business or eligible joint venture, upon completion of the work, any veteran-owned small local business or eligible joint venture that receives a bid preference but fails to meet the definition of a veteran-owned small local business or eligible joint venture during the term of the contract for which the bid incentive was awarded shall be fined in an amount equal to three times the amount of the bid incentive awarded.

The contractor shall maintain adequate records necessary to ensure compliance with this section and shall submit such reports as required by the chief procurement officer. Full access to the contractor’s and subcontractors’ records shall be granted to the chief procurement officer, the commissioner of the supervising department, the inspector general, or any duly authorized representative thereof. The contractor and subcontractor shall maintain all relevant records a period that is the longer of seven years or as after final acceptance of the work in accordance with the Local Records Act.

B. Bid Incentive for Utilization of Veteran-Owned Subcontractors

"Bid incentive" means an amount deducted, for bid evaluation purposes only, from the contract base bid in order to calculate the bid price to be used to evaluate the bid on a competitively bid contract.

“Construction project” means any project to be paid for by the city, but which is not funded in whole or part by any federal or state funds, to construct, remodel or reconstruct any public works, public buildings, public structures, roadways, parkways, bridges, parking facilities or parks, or any portion of any of the same, belonging to the city within its geographical boundaries as they exist or shall exist in the future.

"Contract base bid" means the total dollar amount a contractor bids on a contract without factoring any bid incentive or percentage reductions to the bid amount.

“Prime contractor” means a person who is the primary contractor on a contract.

“Veteran-owned subcontractor” means a subcontractor that: (i) is a veteran-owned small local business, as the term is defined in MCC Section 2-92-920; (ii) holds all appropriate city licenses; and (iii) is subject to applicable city taxes; provided that a veteran-owned subcontractor shall not include the prime contractor.

Pursuant to MCC Section 2-92-940, unless otherwise prohibited by any federal, state or local law, the CPO shall allocate to any qualified bidder on any construction project the following bid incentive for utilization of veteran-owned subcontractors in the performance of the contract.

| Total Dollar Value of Work Performed by Veteran-Owned Subcontractors as a Percentage of the Total Contract Value | Bid Incentive |
|--|-------------------------------|
| 1 to 16% | 0.5% of the contract base bid |
| 17 to 32% | 1% of the contract base bid |
| 33 to 49% | 1.5% of the contract base bid |
| 50% or greater | 2% of the contract base bid |

If a veteran-owned subcontractor subcontracts part of the work to another contractor, only the value of work performed by the veteran-owned subcontractor’s employees shall count towards the bid incentive, unless the sub-subcontractor is a veteran-owned subcontractor.

The bid incentive is used only to calculate an amount to be used in evaluating the bid to determine the low bidder, and it does not affect the contract price.

A contractor shall not be eligible to receive in one contract bid, the bid incentive allocated pursuant to this Section 2-92-940 and that allocated pursuant to Section 2-92-410 (bid incentive for certain city-based manufacturers). This bid incentive may not be combined with any other procurement set-aside benefit for a veteran-owned business enterprise under the MCC.

If a veteran-owned subcontractor is also an MBE/WBE, any participation on the contract that is utilized toward MBE/WBE goals on the prime contractor's compliance plan shall not count toward the total dollar value of work performed by veteran-owned subcontractors for purposes of this Bid Incentive.

The prime contractor shall maintain records adequate to monitor compliance with this section and shall submit such reports as required by the CPO. Full access to the prime contractor's records shall be granted to the CPO, the commissioner of the supervising department, the inspector general, or any duly authorized representative thereof. The prime contractor and subcontractors shall maintain all relevant records for at least three years after the expiration of the contract.

The CPO may require, at the time of submission of a bid or at any time during the term of the contract, that the bidder or veteran-owned subcontractor submit an affidavit and other supporting documents demonstrating that a subcontractor is a veteran-owned subcontractor.

Upon completion of the work, any prime contractor that has failed to retain the percentage of veteran-owned subcontracts for which a bid incentive was taken into consideration in awarding of a contract shall be fined an amount equal to three times the amount of the bid incentive allocated, unless the prime contractor can demonstrate that due to circumstances beyond the prime contractor's control, the prime contractor for good cause was unable to retain the percentage of veteran-owned subcontractors throughout the duration of the contract period.

VETERAN-OWNED SMALL LOCAL BUSINESSES AND ELIGIBLE JOINT VENTURES AFFIDAVIT

Bidder must complete this form if it desires to be considered for the bid incentive as described in Section 2-92-950 of the Municipal Code of Chicago ("MCC") for Veteran-Owned Small Local Businesses and Eligible Joint Ventures. Bidders that do not complete this page will not be regarded as veteran-owned small local businesses or eligible joint ventures. In some circumstances application of this incentive will affect counting MBE or WBE participation when the small local business involved in claiming the incentive is an MBE or WBE, please consult DPS regulations. Please use additional sheets if necessary. Attach all relevant certifications and/or support documents.

1. Is bidder a "veteran-owned small local business" as defined in Book 1, Section XXII.D. of this bid solicitation and in MCC 2-92-920?

Yes No If Yes, attach the bidder's current City of Chicago VBE certification letter and skip to #7

below.

2. Is bidder an "eligible joint venture" as defined in Book 1, Section XXII.D. of this bid solicitation and in MCC 2-92-920?

Yes No

3. Is at least one member of the eligible joint venture a "small business enterprise" as defined in MCC 2-92-920?

Yes No

4. Is at least one member of the eligible joint venture a "veteran-owned business enterprise" as that term is defined in MCC 2-92-920?

Yes No

5. Is the veteran-owned business identified in #4 above an enterprise which is at least 51 percent owned by one or more veterans, or in the case of a publicly held corporation, at least 51 percent of all classes of stock of which are owned by one or more veterans?

Yes No

If yes, please list all owners, their percentage of ownership interest, and provide appropriate documentation demonstrating status as veteran, as that term is defined in MCC 2-92-920.

6. Is the veteran-owned business identified in #4 above certified by either: (i) the City as a veteran-owned small local business pursuant to MCC 2-92-930; (ii) the County of Cook as a veteran business enterprise; (iii) the State of Illinois as a qualified service-disabled veteran-owned small business or a qualified veteran-owned small business pursuant to 30 ILCS 500/45-57; or (iv) verified and approved by the United States Department of Veterans Affairs as a service-disabled veteran-owned small business or a veteran-owned small business? If yes to any of the above, please provide appropriate documentation.

Yes No

7. List City of Chicago business license(s) held. If none are required, indicate "none required": _____

8. Provide address of the veteran-owned business, including the County in which it is located. _____

County: _____

Bidder understands that it may be required to produce records to the chief procurement officer to verify the information provided. Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

BIDDER MUST COMPLETE THE APPLICABLE SIGNATURE LINE(S) ON THE FOLLOWING PAGE.

VETERAN-OWNED SMALL LOCAL BUSINESSES AND ELIGIBLE JOINT VENTURES AFFIDAVIT – SIGNATURE PAGE

Required Signature for All Applicants

Name of Veteran-Owned Business: _____

(Print or Type)

Signature of Authorized Officer for Veteran-Owned Business: _____

(Signature)

Title of Signatory: _____

(Print or Type)

Additional Required Signatures for Eligible Joint Venture Applicants

Name of Joint Venture (for eligible joint ventures only): _____

(Print or Type)

Name of SBE (for eligible joint ventures only): _____

(Print or Type)

Signature of Authorized Officer for SBE (for eligible joint ventures only): _____

(Signature)

Title of Signatory: _____

(Print or Type)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by

_____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

BIDDER'S COMMITMENT TO UTILIZE VETERAN-OWNED SUBCONTRACTORS AFFIDAVIT

The Veteran-Owned Subcontractors Incentive as described in Section 2-92-940 of the Municipal Code of Chicago ("MCC") is applicable to competitively bid construction projects funded in whole by City funds. Bidder must submit this form with the bid if it desires to be considered for this bid incentive. Bidders that do not submit this page with their bid will not be eligible for this bid incentive. Bidders must attach a copy of each veteran-owned subcontractor's City of Chicago VBE certification letter. No other certification letters will be accepted for purposes of determining eligibility for this bid incentive. If this incentive is allocated, neither the Bid Incentive for Certain City-Based Manufacturers described in MCC 2-92-410, nor any other procurement set-aside benefit for a veteran-owned business enterprise under the MCC, will be allocated to the same bid.

Note: The CPO may request additional information or documentation before determining to apply the preference.

1. Contract title: _____
Specification #: _____

2. The value of work performed by veteran-owned subcontractors (as defined in MCC 2-92-920 and the applicable bid solicitation) that Bidder commits to provide will be what percentage of the total dollar value of the contract?
() 1% to 16%-- 0.5% incentive () 17% to 32%-- 1% incentive
() 33% to 49%-- 1.5% incentive () 50% or greater-- 2% incentive

Bidder understands that if it fails to utilize the committed percentage of veteran-owned subcontractors, under MCC 2-92-940 it may be fined in an amount equal to three times the amount of the bid incentive allocated, unless the prime contractor can demonstrate that due to circumstances beyond the prime contractor's control, the prime contractor for good cause was unable to retain the percentage of veteran-owned subcontractors throughout the duration of the contract period.

Bidder understands that it may be required to produce records to the CPO to verify the information provided.

Bidder understands that if a veteran-owned subcontractor is also an MBE/WBE, any participation on the contract that is utilized toward MBE/WBE goals on the prime contractor's compliance plan shall not count toward the total dollar value of work performed by veteran-owned subcontractors for purposes of this Bid Incentive.

Signature page follows.

BIDDER'S COMMITMENT TO UTILIZE VETERAN-OWNED SUBCONTRACTORS AFFIDAVIT – SIGNATURE PAGE

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Bidder: _____

(Print or Type)

Signature of Authorized Officer: _____

(Signature)

Title of Signatory: _____

(Print or Type)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by

_____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

32. BID INCENTIVE FOR UTILIZATION OF VETERAN-OWNED SUBCONTRACTORS

“Construction project” means any project to be paid for by the city, but which is not funded in whole or part by any federal or state funds, to construct, remodel or reconstruct any public works, public buildings, public structures, roadways, parkways, bridges, parking facilities or parks, or any portion of any of the same, belonging to the city within its geographical boundaries as they exist or shall exist in the future.

“Prime contractor” means a person who is the primary contractor on a contract.

“Veteran-owned subcontractor” means a subcontractor that: (i) is a veteran-owned small local business, as the term is defined in MCC Section 2-92-418; (ii) holds all appropriate city licenses; and (iii) is subject to applicable city taxes; provided that a veteran-owned subcontractor shall not include the prime contractor.

Pursuant to MCC Section 2-92-407, unless otherwise prohibited by any federal, state or local law, the CPO shall allocate to any qualified bidder on any construction project the following bid incentive for utilization of veteran-owned subcontractors in the performance of the contract.

| Total Dollar Value of Work Performed by Veteran-Owned Subcontractors as a Percentage of the Total Contract Value | Bid Incentive |
|--|-------------------------------|
| 1 to 16% | 0.5% of the contract base bid |
| 17 to 32% | 1% of the contract base bid |
| 33 to 49% | 1.5% of the contract base bid |

If a veteran-owned subcontractor subcontracts part of the work to another contractor, only the value of work performed by the veteran-owned subcontractor’s employees shall count towards the bid incentive, unless the sub-subcontractor is a veteran-owned subcontractor.

The bid incentive is used only to calculate an amount to be used in evaluating the bid to determine the low bidder, and it does not affect the contract price.

A contractor shall not be eligible to receive in one contract bid, the bid incentive allocated pursuant to this Section 2-92-407 and that allocated pursuant to Section 2-92-410 (bid incentive for certain city-based manufacturers). This bid incentive may not be combined with any other procurement set-aside benefit for a veteran-owned business enterprise under the MCC.

If a veteran-owned subcontractor is also an MBE/WBE, any participation on the contract that is utilized toward MBE/WBE goals on the prime contractor’s compliance plan shall not count toward the total dollar value of work performed by veteran-owned subcontractors for purposes of this Bid Incentive.

The prime contractor shall maintain records adequate to monitor compliance with this section and shall submit such reports as required by the CPO. Full access to the prime contractor’s records shall be granted to the CPO, the commissioner of the supervising department, the inspector general, or any duly authorized representative thereof. The prime contractor and subcontractors shall maintain all relevant records for at least three years after the expiration of the contract.

The CPO may require, at the time of submission of a bid or at any time during the term of the contract, that the bidder or veteran-owned subcontractor submit an affidavit and other supporting documents demonstrating that a subcontractor is a veteran-owned subcontractor.

Upon completion of the work, any prime contractor that has failed to retain the percentage of veteran-owned subcontracts for which a bid incentive was taken into consideration in awarding of a contract shall be fined an amount equal to three times the amount of the bid incentive allocated, unless the prime contractor can demonstrate that due to circumstances beyond the prime contractor's control, the prime contractor for good cause was unable to retain the percentage of veteran-owned subcontractors throughout the duration of the contract period.

BIDDER'S COMMITMENT TO UTILIZE VETERAN-OWNED SUBCONTRACTORS AFFIDAVIT

The Veteran-Owned Subcontractors Incentive as described in Section 2-92-407 of the Municipal Code of Chicago ("MCC") is applicable to competitively bid construction projects funded in whole by City funds. Bidder must submit this form with the bid if it desires to be considered for this bid incentive. Bidders that do not submit this page with their bid will not be eligible for this bid incentive. Attach additional sheets if necessary. If this incentive is allocated, neither the Bid Incentive for Certain City-Based Manufacturers described in MCC 2-92-410, nor any other procurement set-aside benefit for a veteran-owned business enterprise under the MCC, will be allocated to the same bid.

Note: The CPO may request additional information or documentation before determining to apply the preference.

1. Contract title: _____
Specification #: _____
2. The value of Locally Manufactured Goods (as defined in MCC 2-92-410 and the applicable solicitation) that Bidder commits to provide will be what percentage of the total dollar value of the contract?

 1% to 16%-- 0.5% incentive 17% to 32%-- 1% incentive
 33% to 49%-- 1.5% incentive 50% or greater-- 2% incentive

Bidder understands that if it fails to utilize the committed percentage of veteran-owned subcontractors, under MCC 2-92-407 it may be fined in an amount equal to three times the amount of the bid incentive allocated, unless the prime contractor can demonstrate that due to circumstances beyond the prime contractor's control, the prime contractor for good cause was unable to retain the percentage of veteran-owned subcontractors throughout the duration of the contract period.

Bidder understands that it may be required to produce records to the CPO to verify the information provided.

Bidder understands that if a veteran-owned subcontractor is also an MBE/WBE, any participation on the contract that is utilized toward MBE/WBE goals on the prime contractor's compliance plan shall not count toward the total dollar value of work performed by veteran-owned subcontractors for purposes of this Bid Incentive.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Bidder: _____
(Print or Type)

Signature of Authorized Officer: _____
(Signature)

Title of Signatory: _____
(Print or Type)

State of _____ County of _____

Signed and sworn (or affirmed) to before me on _____(date) by
_____(name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

33. BID INCENTIVE FOR LOCAL MANUFACTURE

For purposes of this section only, the following definitions shall apply:

“City-based manufacturer” means a person who: (i) holds any appropriate city license; (ii) is subject to applicable city taxes; and (iii) owns, operates, or leases a manufacturing facility within the city.

“Contract for goods” means any contract, purchase order or agreement for the purchase of goods awarded by the city and whose cost is to be paid from funds belonging to or administered by the city; provided that a “contract” does not include: (i) a delegate agency contract; (ii) a lease of real property; (iii) a collective bargaining agreement; or (iv) a construction contract as defined in Section 2-92-670.

“Locally manufactured goods” means goods whose value, either in whole or in part, is derived from growing, producing, processing, assembling, or manufacturing activities that occur within a city-based manufacturer's facility located within the city.

“Manufacture” means to produce tangible goods for use from raw or prepared materials by giving the materials new forms, qualities, properties or combinations, whether by hand-labor or machines.

If these BID Documents pertain to a Contract for Goods having an estimated contract value of \$100,000 or more, the CPO may allocate a bid incentive ("Local Goods Incentive"). If the CPO has determined that a Local Goods Incentive will be allocated, it shall consist of the following:

| Total Dollar Value of Locally Manufactured Goods Provided in the Contract | Incentive |
|---|----------------------------|
| 25% to 49% | 1% of the price proposal |
| 50% to 74% | 1.5% of the price proposal |
| 75% or greater | 2% of the price proposal |

Bidders desiring to take advantage of the Local Goods Incentive, if allocated, must submit documentation with their bid that the goods to be provided will be locally manufactured goods.

Upon completion of the work, any contractor that has failed to supply the required percentage of locally manufactured goods for which the Local Goods Incentive was allocated shall pay an amount equal to three times the amount of the difference between the incentive allocated and the incentive that would have been allocated to that contractor for the amount of locally manufactured goods actually supplied under the contract, unless the contractor can demonstrate that due to circumstances beyond the contractor's control, the contractor for good cause was unable to provide the required percentage of locally manufactured goods.

If a Project Area Subcontractor Preference pursuant to Section 2-92-405 is applied to a Bidder's Bid, the Local Goods Incentive pursuant to Section 2-92-410 of the MCC will not be applied to that same Bid.

COMMITMENT TO PROVIDE LOCALLY MANUFACTURED GOODS AFFIDAVIT – BIDDER

The Locally Manufactured Goods Incentive as described in the Local and Other Preferences section of this solicitation may be available. Bidder must submit this form with its proposal, as well as a *Manufacturer’s Affidavit of Local Manufacturing* for each local manufacturer from which goods will be sourced, if it desires to be considered for this incentive. Bidders that do not submit this page with their bid will not be regarded as providing locally manufactured goods. Attach additional sheets if necessary. If this incentive is allocated, the City Based Business Preference will not be allocated to the same bid.

Unless otherwise provided in the applicable solicitation, in order for an item to be considered Locally Manufactured Goods, more than 50% of the value of the item must be derived from manufacturing activities that occur within a city-based manufacturer’s facility located within the City of Chicago.

Note: The CPO may request additional information or documentation before determining to apply the preference.

1. Contract title: _____ Specification #: _____
2. The value of Locally Manufactured Goods (as defined in MCC 2-92-410 and the applicable solicitation) that Bidder commits to provide will be what percentage of the total dollar value of the contract?
 25% to 49% -- 1% incentive 50% to 74% -- 1.5% incentive 75% or greater – 2% incentive
3. Identify the categories of goods where Locally Manufactured Goods will be provided and their value, based on the specification’s estimated quantities (attach additional sheets if necessary):

| Specification Section and Page Reference | Locally Manufactured Item(s) to be provided | Manufacturer * | Value of Item(s) |
|--|---|----------------|------------------|
| | | | \$ |
| | | | \$ |
| | | TOTAL: | \$ |

* Bidder must provide *Manufacturer’s Affidavit of Local Manufacturing* for each manufacturer listed.

4. Provide an estimate of the value of all goods to be provided, regardless of source: \$ _____
 Bidder understands that if it fails to supply the committed percentage of Locally Manufactured Goods, it shall pay an amount equal to three times the amount of the difference between the bid incentive allocated and the bid incentive that would have been allocated to that contractor for the amount of locally manufactured goods actually supplied.

Bidder understands that it may be required to produce records to the Chief Procurement Officer to verify the information provided.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of Bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Bidder: _____
 (Print or Type)

Signature of Authorized Officer: _____
 (Signature)

Title of Signatory: _____
 (Print or Type)

State of _____
 County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by _____
 (name/s of person/s making statement).

 (Signature of Notary Public)

(Seal)

LOCAL MANUFACTURING AFFIDAVIT -- BIDDER

The Locally Manufactured Goods Incentive as described in the Local and Other Preferences section of this solicitation may be available. Bidder must submit this form with its proposal to be considered for the incentive. Bidders that do not submit this page with their bid will not be regarded as providing locally manufactured goods. If goods will be manufactured by multiple manufacturers or at multiple facilities in the City of Chicago, submit an affidavit for each. Attach additional sheets if necessary. If this incentive is allocated, the City Based Business Preference will not be allocated to the same proposal.

Note: The CPO may request additional information or documentation before determining to apply the preference.

1. Contract Title: _____ Specification #: _____

Bidder Name: _____

2. Is manufacturer a "City-Based Manufacturer" as defined in the solicitation and in MCC 2-92-410?
() Yes () No

3. Street address of manufacturing facility location within the City of Chicago (P.O. address not accepted):

4. Describe the manufacturing activities carried out at the location listed above:

5. List the goods to be manufactured at this facility manufacturer is prepared to provide to Bidder, describe the production steps performed at the facility in the manufacture of each item, and the percentage of the item's value derived from manufacturing activities at this facility, and attach a catalog page, cut sheet, or product specification for each item:

Item: _____ Production Steps: _____ % of value: _____
Item: _____ Production Steps: _____ % of value: _____

6. List City of Chicago business license(s) held and provide a copy. If none are required, indicate "none required":

The undersigned commits to enter into a formal written agreement for supply with Bidder, conditioned upon its execution of a contract with the City of Chicago to which the Locally Manufactured Goods Incentive is applied, within three (3) business days of its receipt of a signed contract from the City of Chicago. The Bidder understands that it may be required to produce records to the Chief Procurement Officer to verify the documentation provided.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of Bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Manufacturer: _____
(Print or Type)

Signature of Manufacturer Authorized Officer: _____
(Signature)

Title of Signatory: _____
(Print or Type)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by
_____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

34. PROJECT AREA SUBCONTRACTOR BID PREFERENCE

Definitions for Project Area Subcontractor Bid Preference

For purposes of this section only, the following definitions shall apply:

"Construction project" means any project to be paid for by the city, but which is not funded in whole or part by any federal or state funds, to construct, remodel or reconstruct any public works, public buildings, public structures, roadways, parkways, bridges, parking facilities or parks, or any portion of any of the same, belonging to the city within its geographical boundaries as they exist or shall exist in the future.

"Department" means the department of procurement services.

"Project-area subcontractor" means a person who: (i) conducts meaningful day-to-day business operations at a facility located within that part of the city designated as the project area in the information for bidders issued by the department and that facility is the place of employment for the majority of that person's regular, full-time workforce; (ii) holds all appropriate city licenses; (iii) is a small business enterprise; and (iv) is subject to applicable city taxes; provided that a project-area subcontractor shall not include the prime contractor.

"Prime Contractor" means a person who is the primary contractor on a contract.

"Small business enterprise" means a small business as defined by the U.S. Small Business Administration, pursuant to the business size standards found in 13 C.F.R. Part 121, relevant to the scope of work the business seeks to perform on city contracts. A business is not an eligible small business enterprise in any city fiscal year in which its gross receipts, averaged over the firm's previous five fiscal years, exceed the size standards of 13 C.F.R. Part 121.

Application of Project Area Subcontractor Bid Preference

A. For any construction project advertised after the effective date of this section and where not otherwise prohibited by federal, state or local law, the chief procurement officer shall allocate to any qualified bidder the following bid incentive for utilization of project-area subcontractors in the performance of the contract.

| Total dollar value of work performed by project-area subcontractors as a percentage of the total contract value | Bid Incentive |
|--|-------------------------------|
| 1 to 16% | 0.5% of the contract base bid |
| 17 to 32% | 1% of the contract base bid |
| 33 to 49% | 1.5% of the contract base bid |
| 50% or greater | 2% of the contract base bid |

If a project-area subcontractor subcontracts part of the work to another contractor, only the value of work performed by the project-area subcontractor's employees shall count towards the bid incentive, unless the sub-subcontractor is a project-area subcontractor.

The bid incentive is used only to calculate an amount to be used in evaluating the bid to determine the low bidder, and it does not affect the contract price.

A contractor shall not be eligible to receive in one contract bid, the bid incentive allocated pursuant to this section and that allocated pursuant to section 2-92-410 (Local Manufacture Incentive).

Bidders desiring to receive this incentive must submit an affidavit and other supporting documents demonstrating that the bidder satisfies all pertinent requirements.

B. The chief procurement officer may determine not to allocate a bid incentive under this section, under the following

conditions:

- (i) an emergency exists;
- (ii) for cooperative purchasing or cooperative construction contracts;

or

(iii) the chief procurement officer otherwise concludes that the allocation of a bid incentive is not in the city's best interest.

Record-Keeping

The prime contractor shall maintain records adequate to monitor compliance with this section and shall submit such reports as required by the chief procurement officer. Full access to the prime contractor's records shall be granted to the chief procurement officer, the commissioner of the supervising department, the inspector general, or any duly authorized representative thereof. The prime contractor and subcontractors shall maintain all relevant records for a period of at least three years after the expiration of the contract, unless the contract generally requires records to be preserved for a longer period.

Affidavit Required

The chief procurement officer may require, at the time of bidding, at any time during bid evaluation or at any time during the term of the contract, that bidder/contractor and/or project area subcontractor submit affidavits and other supporting documents demonstrating that a subcontractor is a project-area subcontractor.

Failure to Retain Project Area Subcontractors

Upon completion of the work, any prime contractor that has failed to retain the percentage of project-area subcontracts for which a bid incentive was taken into consideration in awarding of a contract shall be fined an amount equal to three times the amount of the bid incentive allocated, unless the prime contractor can demonstrate that due to circumstances beyond the prime contractor's control, the prime contractor for good cause was unable to retain the percentage of project-area subcontractors throughout the duration of the contract period.

BIDDER'S COMMITMENT TO UTILIZE PROJECT AREA SUBCONTRACTORS

The Project Area Subcontractor Bid Preference as described in Section 2-92-405 of the Municipal Code of Chicago ("MCC") is applicable to competitively bid Contracts for construction work funded in whole by City funds. Bidder must submit this form with the bid, as well as a *Subcontractor's Affidavit of Project Area* for each project area subcontractor that will participate in the project, if it desires to be considered for this bid preference. Bidders that do not submit this page with their bid will not be regarded as utilizing project area subcontractors. Attach additional sheets if necessary. If this preference is applied, the Local Manufacturer Incentive described in MCC 2-92-410 will not be allocated to the same bid.

Note: The CPO may request additional information or documentation before determining to apply the preference.

1. Contract title: _____ Specification #: _____
2. The value of work to be performed by Project Area Subcontractor (as defined in MCC 2-92-405 and the applicable bid solicitation) that Bidder commits to provide will be what percentage of the total dollar value of the contract?
 1% to 16%-- 0.5% of contract base bid 33% to 49%-- 1.5% of contract base bid
 17% to 32%-- 1% of contract base bid 50% or greater-- 2% of contract base bid

3. Identify the bid lines under which Project Area Subcontractor work will be provided and its value, based on the bid specification's estimated quantities (attach additional sheets if necessary):

| Bid Line # | Work to be performed | Project Area Subcontractor* | Value of Work |
|---------------|----------------------|-----------------------------|---------------|
| | | | \$ |
| | | | \$ |
| | | | \$ |
| TOTAL: | | | \$ |

*Bidder must provide *Project Area Subcontractor Affidavit* for each subcontractor listed.

Bidder understands that if it fails to supply the committed percentage of Project Area Subcontractor Work, under MCC 2-92-405 it may be fined in an amount equal to three times the amount of the difference between the bid incentive allocated and the bid preference that would have been allocated to that contractor for the amount of project area subcontractor work actually provided.

Bidder understands that it may be required to produce records to the chief procurement officer to verify the information provided.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Bidder: _____
 (Print or Type)

Signature of Authorized Officer: _____
 (Signature)

Title of Signatory: _____
 (Print or Type)

State of _____
 County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by
 _____ (name/s of person/s making statement).

 (Signature of Notary Public)
 (Seal)

PROJECT AREA SUBCONTRACTOR AFFIDAVIT

The Project Area Subcontractor Bid Preference as described in Section 2-92-405 of the Municipal Code of Chicago ("MCC") is applicable to competitively bid Contracts funded in whole by City funds. Bidder must submit this form with the bid, in order to be considered for this bid preference. Bidders that do not submit this page with their bid will not be regarded as utilizing project area subcontractors. If work will be performed by multiple Project Area Subcontractors, submit an affidavit for each. Attach additional sheets if necessary.

Note: The CPO may request additional information or documentation before determining to apply the preference.

1. Contract Title: _____
Specification #: _____
Bidder/Contractor Name: _____
2. Is subcontractor a "Project Area Subcontractor" as defined in the Requirements for Bidding and Instructions for Bidders portion of this bid solicitation and in MCC 2-92-405? () Yes () No
3. Is subcontractor a "Small Business Enterprise" as described by the US Small Business Administration and defined in the Requirements for Bidding and Instructions for Bidders portion of this bid solicitation and in MCC 2-92-405?
() Yes () No
4. Street address of facility location within the City of Chicago (P.O. address not accepted):

5. Describe the work to be performed on the contract: _____

6. List City of Chicago business license(s) held. If none are required, indicate "none required":

The undersigned commits to enter into a formal written agreement for supply with Bidder/Contractor, conditioned upon its execution of a contract with the City of Chicago to which the Project Area Business Preference is applied, within three (3) business days of its receipt of a signed contract from the City of Chicago. The Bidder/Contractor understands that it may be required to produce records to the chief procurement officer to verify the information provided.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Project Area Subcontractor: _____
(Print or Type)

Signature of Project Area Subcontractor Officer: _____
(Signature)

Title of Signatory: _____
(Print or Type)

State of _____
County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by
_____ (name/s of person/s making statement).

(Signature of Notary Public)
(Seal)

35. GRADUATES OF CHICAGO SCHOOLS APPRENTICE UTILIZATION (SECTION 2-92-335 OF THE CHICAGO MUNICIPAL CODE)

(a) For purposes of this section the following definitions apply:

“Apprentice” means any person who (1) is sponsored into an apprenticeship training program by a contractor that is authorized by a union to sponsor apprentices; and (2) has graduated from a Chicago Public Schools high school or is enrolled in, or has graduated from, a construction technology training program administered by the City Colleges of Chicago. The union's apprenticeship training program must be registered with the United States Department of Labor, or approved or recognized by the State of Illinois.

“Bid incentive” means an amount deducted, for bid evaluation purposes only, from the contract base bid in order to calculate the bid price to be used to evaluate the bid on a competitively bid construction project.

“Construction project” means any project to be paid for by D.P.S., but which is not funded in whole or part by any federal funds, to construct, remodel or reconstruct any public works, public buildings, public structures, roadways, parkways, bridges, parking facilities or parks, or any portion of any of the same, belonging to the City within its geographical boundaries as they exist or shall exist in the future.

“Contract base bid” means the total dollar amount a contractor bids on a construction project without factoring any bid incentive or percentage reductions to the bid amount.

“Earned credit” means the amount of the bid incentive allocated to a contractor upon completion of a construction project in which the contractor met or exceeded his or her goals for the utilization of apprentices in performance of the total labor hours performed under the contract.

“Earned credit certificate” means a certificate issued by the chief procurement officer evidencing the amount of earned credit a contractor has been awarded.

“Labor hours” means the total hours of workers receiving an hourly wage who are directly employed at the work site. “Labor hours” shall include hours performed by workers employed by the contractor and all subcontractors working at the work site. “Labor hours” shall not include hours worked by non-working foremen, superintendents, owners and workers who are not subject to prevailing wage requirements.

(b) (1) For any construction project advertised having an estimated contract value of \$100,000.00 or more, and where not otherwise prohibited by federal, state or local law, the chief procurement officer shall allocate to any qualified bidder the following bid incentive for utilization of apprentices in performance of the total labor hours performed under contract.

| Percentage of Total Labor Hours Performed By Apprentices | Bid Incentive |
|--|-------------------|
| 5 to 10% | 1/2% of bid price |
| 11 to 15% | 1% of bid price |

The bid incentive shall be calculated and applied in accordance with subsection (b)(2). The bid incentive is used only to calculate an amount to be used in evaluating the bid. The bid incentive does not affect the contract price.

(2) As part of the contract close-out procedure, if the chief procurement officer determines that the contractor has successfully met its apprentice utilization goals, the chief procurement officer shall issue an earned credit certificate that evidences the amount of earned credits allocated to the contractor. The contractor may apply the earned credits as the bid incentive for any future construction project contract bid of equal or greater dollar value.

The earned credit certificate is valid for three years from the date of issuance and shall not be applied towards any future contract bid after the expiration of that period.

The contractor may apply the earned credit certificate on multiple future construction project contract bids during the three-year period in which the certificate is valid, but may only receive one bid incentive for bid evaluation purposes on one construction project contract award. If the contractor applies the earned credit certificate on multiple construction project bids and is the lowest responsive and responsible bidder on more than one construction project bid, the earned credit certificate shall be applied to the construction project first to be advertised by D.P.S., or if multiple construction project bids were advertised on the same date, the earned credit certificate shall be applied only to the construction project with the greatest dollar value.

(c) The contractor shall maintain accurate and detailed books and records necessary to monitor compliance with this section and shall submit such reports as required by the chief procurement officer, or the commissioner of the supervising department.

Full access to the contractor's and subcontractors' records shall be granted to the chief procurement officer, the commissioner of the supervising department, or any duly authorized representative thereof. The contractor and subcontractors shall maintain all relevant records for a period of at least three years after final acceptance of the work.

(d) The chief procurement officer is authorized to adopt, promulgate and enforce reasonable rules pertaining to the administration and enforcement of this section.

BIDDER'S COMMITMENT TO UTILIZE APPRENTICES THAT ARE GRADUATES OF CHICAGO SCHOOLS

The Apprentice Ordinance Bid Incentive as described in Section 2-92-335 of the Municipal Code of Chicago ("MCC") is applicable to competitively bid construction projects funded in whole by City funds with an estimated contract value of \$100,000.00 or more.

Bidder must submit this form with the bid if it desires to be considered for this bid incentive on a future eligible construction project. Bidders that do not submit this page with their bid may still be eligible for this future bid incentive if it is awarded a contract under this specification and submits this affidavit to the CPO during the contract term. Attach additional sheets if necessary.

Note: The CPO may request additional information or documentation before determining to award an earned credit certificate for use on a future eligible construction project bid following contract close-out.

1. Contract title: _____
Specification #: _____

2. The percentage of total labor hours for which Bidder commits to utilize apprentices (as defined in MCC 2-92-335 and the applicable bid solicitation) will be what percentage of the total hours performed under the contract?
- () 5% to 10%-- 0.5% incentive
- () 11% to 15%-- 1.0% incentive

Bidder understands that, pursuant to MCC 2-92-335, unless it meets or exceeds its apprentice utilization goals upon completion of this construction project, Bidder will not receive the above bid incentive for future construction project contracts.

Name of Bidder: _____
(Print or Type)

Signature of Authorized Officer: _____
(Signature)

Title of Signatory: _____
(Print or Type)

REQUEST TO APPLY BID INCENTIVE: CHICAGO GRADUATES APPRENTICE UTILIZATION (MCC 2-92-335)

The Apprentice Ordinance Bid Incentive as described in Section 2-92-335 of the Municipal Code of Chicago ("MCC") is applicable to competitively bid construction projects funded in whole by City funds with an estimated contract value of \$100,000.00 or more.

Bidder must submit this form with the bid if it desires to use a previously obtained earned credit certificate bid incentive on its bid for this contract. Bidders that do not submit this page with their bid will not be eligible for this bid incentive. Attach additional sheets if necessary.

Note: The CPO may request additional information or documentation before determining to award this bid incentive.

1. Current Contract title: _____
Current Specification #: _____
2. Value of previously earned credit certificate for application to this contract bid:
\$ _____
Previous Contract title: _____
Previous Specification #: _____

Attach a copy of the earned credit certificate for verification.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder; (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution; and (3) warrants that bidder did in fact employ those apprentices on the identified previous contract and take all other actions that were required to qualify for this bid incentive.

Name of Bidder: _____

(Print or Type)

Signature of Authorized Officer: _____

(Signature)

Title of Signatory: _____

(Print or Type)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by

_____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

36. EX-OFFENDER APPRENTICE UTILIZATION (SECTION 2-92-336 OF THE CHICAGO MUNICIPAL CODE)

(a) For purposes of this section the following definitions apply:

“Apprentice” means any person who is: (1) sponsored into an apprenticeship training program by a contractor that is authorized by a union to sponsor apprentices; (2) participating in a workforce development program of a delegate agency that receives funding from the Department Of Family and Support Services; and (3) an ex-offender. The union's apprenticeship training program must be registered with the United States Department of Labor, or approved or recognized by the State of Illinois. For purposes of this definition, “participating in” means the duration of the pertinent contract or one year, whichever is less.

“Bid incentive” means an amount deducted, for bid evaluation purposes only, from the contract base bid in order to calculate the bid price to be used to evaluate the bid on a competitively bid construction project.

“Construction project” means any project to be paid for by the City, but which is not funded in whole or part by any federal or state funds, to construct, remodel or reconstruct any public works, public buildings, public structures, roadways, parkways, bridges, parking facilities or parks, or any portion of any of the same, belonging to the City within its geographical boundaries as they exist or shall exist in the future.

“Contract base bid” means the total dollar amount a contractor bids on a construction project without factoring any bid incentive or percentage reductions to the bid amount.

“Earned credit” means the amount of the bid incentive allocated to a contractor upon completion of a construction project in which the contractor met or exceeded his or her goals for the utilization of apprentices in performance of the total labor hours performed under the contract.

“Earned credit certificate” means a certificate issued by the chief procurement officer evidencing the amount of earned credit a contractor has been awarded.

“Ex-offender” means a resident of the City of Chicago who has been convicted of an imprisonable offense under the Illinois Criminal Code or another state's penal statute.

“Labor hours” means the total hours of workers receiving an hourly wage who are directly employed at the work site. “Labor hours” shall include hours performed by workers employed by the contractor and all subcontractors working at the work site. “Labor hours” shall not include hours worked by non-working foremen, superintendents, owners and workers who are not subject to prevailing wage requirements.

(b)(1) For any construction project advertised after the effective date of this section having an estimated contract value of \$100,000.00 or more, and where not otherwise prohibited by federal, state or local law, the chief procurement officer shall allocate to any qualified bidder the following bid incentive for utilization of apprentices in performance of the total labor hours performed under the contract.

(2) The Chief Procurement Officer is authorized to limit or preclude the use of apprentices for a particular contract if she determines, following consultation with the Commissioner of Family and Support Services, that the nature of the underlying offense raises concerns of suitability for that contract.

| Percentage of Total Labor Hours Performed By Ex- Offender Apprentices | Bid Incentive |
|---|-------------------|
| 5 to 10% | 1/2% of bid price |
| 11 to 15% | 1% of bid price |

The bid incentive shall be calculated and applied in accordance with subsection (c)(2). The bid incentive does not affect the contract price and is used only to calculate an amount to be used in evaluating the bid.

(c)(1) For all construction projects advertised after the effective date of this section, the chief procurement officer shall include the bid incentive provision in all such advertisements, unless the limitation or preclusion of subsection (b)(2) applies.

(2) As part of the contract close-out procedure, if the chief procurement officer determines that the contractor has successfully met its apprentice utilization goals, the chief procurement officer shall issue an earned credit certificate that evidences the amount of earned credits allocated to the contractor. The contractor may apply the earned credits as the bid incentive for any future construction project contract bid of equal or greater dollar value.

The earned credit certificate is valid for three years from the date of issuance and shall not be applied towards any future contract bid after the expiration of that period.

The contractor may apply the earned credit certificate on multiple future construction project contract bids during the three-year period in which the certificate is valid, but may only receive one bid incentive for bid evaluation purposes on one construction project contract award. If the contractor applies the earned credit certificate on multiple construction project bids and is the lowest responsive and responsible bidder on more than one construction project bid, the earned credit certificate shall be applied to the construction project first to be advertised by D.P.S., or if multiple construction project bids were advertised on the same date, the earned credit certificate shall be applied only to the construction project with the greatest dollar value.

(d) The contractor shall maintain accurate and detailed books and records necessary to monitor compliance with this section and shall submit such reports as required by the chief procurement officer, or the commissioner of the supervising department.

Full access to the contractor's and subcontractors' records shall be granted to the chief procurement officer, the commissioner of the supervising department, or any duly authorized representative thereof. The contractor and subcontractors shall maintain all relevant records for at least three years after final acceptance of the work.

(e) The chief procurement officer is authorized to adopt, promulgate and enforce rules pertaining to the administration and enforcement of this section.

BIDDERS COMMITMENT TO UTILIZE EX-OFFENDER APPRENTICES

The Ex-Offender Apprentice Ordinance Bid Incentive as described in Section 2-92-336 of the Municipal Code of Chicago ("MCC") is applicable to competitively bid construction projects funded in whole by City funds with an estimated contract value of \$100,000.00 or more.

Bidder must submit this form with the bid if it desires to be considered for this bid incentive on a future eligible construction project. Bidders that do not submit this page with their bid may still be eligible for this future bid incentive if it is awarded a contract under this specification and submits this affidavit to the CPO during the contract term. Attach additional sheets if necessary.

Note: The CPO may request additional information or documentation before determining to award an earned credit certificate for use on a future eligible construction project bid following contract close-out.

1. Contract title: _____
Specification Number: _____

2. The percentage of total labor hours for which Bidder commits to utilize ex-offender apprentices (as defined in MCC 2-92-336 and the applicable bid solicitation) will be what percentage of the total hours performed under the contract?
 5% to 10% -- 0.5% incentive
 11% to 15% -- 1.0% incentive

Bidder understands that, pursuant to MCC 2-92-336, unless it meets its ex-offender apprentice utilization goals upon completion of this construction project, Bidder will not receive the above bid incentive for future construction project contracts.

Name of Bidder: _____
(Print or Type)

Signature of Authorized Officer: _____
(Signature)

Title of Signatory: _____
(Print or Type)

REQUEST TO APPLY BID INCENTIVE: EX-OFFENDER APPRENTICE UTILIZATION (MCC 2-92-336)

The Ex-Offender Apprentice Ordinance Bid Incentive as described in Section 2-92-336 of the Municipal Code of Chicago ("MCC") is applicable to competitively bid construction projects funded in whole by City funds with an estimated contract value of \$100,000.00 or more.

Bidder must submit this form with the bid if it desires to use a previously obtained earned credit certificate bid incentive on its bid for this contract. Bidders that do not submit this page with their bid will not be eligible for this bid incentive. Attach additional sheets if necessary.

Note: The CPO may request additional information or documentation before determining to award this bid incentive.

1. Current Contract title: _____
Current Specification #: _____

2. Value of previously earned credit certificate for application to this contract bid:
\$ _____
Previous Contract title: _____
Previous Specification #: _____

Attach a copy of the earned credit certificate for verification.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder; (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution; and (3) warrants that bidder did in fact employ those apprentices on the identified previous contract and take all other actions that were required to qualify for this bid incentive.

Name of Bidder: _____
(Print or Type)

Signature of Authorized Officer: _____
(Signature)

Title of Signatory: _____
(Print or Type)

State of _____
County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by

(name/s of person/s making statement).

(Signature of Notary Public)
(Seal)

37. MENTORING PROGRAM BID PREFERENCE (SECTION 2-92-535 of the CHICAGO MUNICIPAL CODE)

For purposes of this section only, the following definitions shall apply:

"Mentoring agreement" means a written mentor-protégé agreement approved by the CPO with MBEs and WBEs to develop their capacity in becoming self-sufficient, competitive and profitable business enterprises, as defined in Section 2-92-535.

"Subcontractor-to-subcontractor mentoring agreement" means a subcontractor's written mentor-protégé agreement approved by the CPO to develop the capacity of MBE or WBE subcontractors, as defined in Section 2-92-535.

Unless otherwise prohibited by any federal, state or local law, the CPO shall allocate a bid incentive of 1% of the contract base price, in accordance with Section 2-92-535 of the MCC, to any prime contractor that has entered into a mentoring agreement or whose subcontractor has entered into a subcontractor-to-subcontractor mentoring agreement.

Bidders desiring to receive this incentive must submit an affidavit and other supporting documents demonstrating that the bidder satisfies all pertinent requirements as a veteran-owned small local business or an eligible joint venture at the time of bid submission and at any time during the term of the Contract, as requested by the CPO.

As a condition of being awarded the bid preference, the Contractor shall maintain records adequate to monitor compliance with MCC Section 2-92-535 and shall submit such reports as required by the CPO. Full access to the Contractor's records shall be granted to the CPO, the Commissioner of the supervising department, the Inspector General, or any duly authorized representative thereof. The Contractor and subcontractors shall maintain all relevant records for a period of no less than three years after the expiration of the Contract.

Upon completion of the work, any Contractor that has failed to maintain a mentoring agreement or a subcontractor that has a subcontractor-to-subcontractor mentoring agreement, for which a bid preference was taken into consideration in awarding of a contract, shall be fined in an amount equal to three times the amount of the bid preference allocated, unless the Contractor can demonstrate that due to circumstances beyond the Contractor's control, the Contractor for good cause was unable to maintain a mentoring agreement or a subcontractor that has a subcontractor-to-subcontractor mentoring agreement throughout the duration of the Contract period.

MENTORING PROGRAM BID PREFERENCE AFFIDAVIT

The Mentoring Program bid preference as described in Section 2-92-535 of the Municipal Code of Chicago (“MCC”) is applicable to contracts having an estimated value of \$100,000 or more.

A bid preference of **1 percent** of the contract base bid is available to qualified bidders that are prime contractors that have entered into a mentoring agreement or whose subcontractor has entered into a subcontractor-to-subcontractor mentoring agreement. The bid preference is used only to calculate an amount to be used in evaluating the bid to determine the low bidder, and it does not affect the contract price.

Bidder must submit this form, and a copy of either its mentoring agreement or a subcontractor-to-subcontractor mentoring agreement, with the bid if it desires to be considered for this bid preference. Bidders that do not submit this page with their bid will not be eligible for this bid preference. Attach additional sheets if necessary.

Note: The CPO may request additional information or documentation before determining to apply the preference.

Contract title: _____

Specification #: _____

Bidder understands that if it fails to maintain a mentoring agreement or a subcontractor that has a subcontractor-to-subcontractor mentoring agreement, for which this bid preference was taken into consideration in awarding of a contract, Bidder shall be fined in an amount equal to three times the amount of the bid preference allocated, unless the Bidder can demonstrate that due to circumstances beyond the Bidder’s control, Bidder for good cause was unable to maintain a mentoring agreement or a subcontractor that has a subcontractor-to-subcontractor mentoring agreement throughout the duration of the contract period.

Bidder understands that it may be required to produce records to the CPO to verify the information provided.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of bidder, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Bidder: _____

(Print or Type)

Signature of Authorized Officer: _____

(Signature)

Title of Signatory: _____

(Print or Type)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by _____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

38. EDS UPDATE OBLIGATION

Contractor is required to notify the City and update the EDS whenever there is a change in circumstances that makes any certification or information provided in an EDS inaccurate, obsolete or misleading. Failure to notify the City and update the EDS is grounds for declaring the Contractor in default, termination of the Contract for default, and declaring that the Contractor is ineligible for future contracts.

39. ELECTRONIC MAIL COMMUNICATION

Electronic mail communication between Contractor and City employees must relate only to business matters between Contractor and the City.

40. TITLE VI SOLICITATION NOTICE:

The City, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

SECTION 2
CONTRACT INSURANCE REQUIREMENTS
CHICAGO DEPARTMENT OF AVIATION
RECIRCULATION BRIDGE REPLACEMENT
CDA Project Number: H3073.18-00

A. INSURANCE REQUIRED

Contractor must provide and maintain at Contractor's own expense, until Contract completion and during the time period following final completion if Contractor is required to return and perform any additional work, services, or operations, the insurance coverages and requirements specified below, insuring all work, services, or operations related to the Contract.

1) Workers Compensation and Employers Liability (Primary and Umbrella)

Workers Compensation Insurance, as prescribed by applicable law covering all employees who are to provide work, services, or operations under this Contract and Employers Liability coverage with limits of not less than \$1,000,000 each accident; \$1,000,000 disease-policy limit; and \$1,000,000 disease-each employee, or the full per occurrence limits of the policy, whichever is greater.

Contractor may use a combination of primary and excess/umbrella policy/policies to satisfy the limits of liability required herein. The excess/umbrella policy/policies must provide the same coverages/follow form as the underlying policy/policies.

2) Commercial General Liability (Primary and Umbrella)

Commercial General Liability Insurance or equivalent must be maintained with limits of not less than \$2,000,000 per occurrence, or the full per occurrence limits of the policy, whichever is greater, for bodily injury, personal injury, and property damage liability. Coverages must include, but not be limited to, the following: All premises and operations, products/completed operations (for the full statute of repose following project completion), explosion, collapse, underground, separation of insureds, runway work, defense, contractual liability (not to include endorsement CG 21 39 or equivalent), no exclusion for damage to work performed by Subcontractors, any limitation of coverage for designated premises or project is not permitted (not to include endorsement CG 21 44 or equivalent), and any endorsement modifying or deleting the exception to the Employer's Liability exclusion is not permitted. If a general aggregate limit applies, the general aggregate must apply per project/location and once per policy period; or Contractor may obtain separate insurance to provide the required limits which will not be subject to depletion because of claims arising out of any other work or activity of Contractor. If a general aggregate applies to products/completed operations, the general aggregate limits must apply per project and once per policy period.

The City and other entities required by City must be provided additional insured status with respect to liability arising out of Contractor's work, services or operations and completed operations performed on behalf of the City. Such additional insured coverage must be provided on ISO form CG 2010 10 01 and CG 2037 10 01 or endorsement form at least as broad for ongoing operations and completed operations. The City's additional insured status must apply to liability and defense of suits arising out of Contractor's acts or omissions, whether such liability is attributable to the Contractor or to the City. The full policy limits and scope of protection also will apply to the City as an additional insured, even if they exceed the City's minimum limits required herein. Contractor's liability insurance must be primary without right of contribution by any other insurance or self-insurance maintained by or available to the City.

Contractor may use a combination of primary and excess/umbrella policy/policies to satisfy the limits of liability required herein. The excess/umbrella policy/policies must provide the same coverages/follow form as the underlying policy/policies.

3) Automobile Liability (Primary and Umbrella)

Contractor must maintain Automobile Liability Insurance with limits of not less than \$2,000,000 per occurrence, or the full per occurrence limits of the policy, whichever is greater, for bodily injury and property damage. Coverages must include, but not be limited to, the following: ownership, maintenance, or use of any auto whether owned,

leased, non-owned or hired used in the performance of the work or devices, both on and off the Project site including loading and unloading. If applicable, coverage extension must include an MCS-90 endorsement where required by the Motor Carrier Act of 1980. The City and other entities required by City are to be named as additional insureds on a primary, non-contributory basis.

Contractor may use a combination of primary and excess/umbrella policy/policies to satisfy the limits of liability required herein. The excess/umbrella policy/policies must provide the same coverages/follow form as the underlying policy/policies.

4) Excess/Umbrella

Excess/Umbrella Liability Insurance must be maintained with limits of not less than \$10,000,000 per occurrence, or the full per occurrence limits of the policy, whichever is greater. The policy/policies must provide the same coverages/follow form as the underlying Commercial General Liability, Automobile Liability, Employers Liability and Completed Operations coverage required herein and expressly provide that the excess or umbrella policy/policies will drop down over reduced and/or exhausted aggregate limit, if any, of the underlying insurance. If a general aggregate limit applies, the general aggregate must apply per project/location. The Excess/Umbrella policy/policies must be primary without right of contribution by any other insurance or self-insurance maintained by or available to the City.

Contractor may use a combination of primary and excess/umbrella policies to satisfy the limits of liability required in sections A.1, A.2, A.3 and A.4 herein.

5) Builders Risk

When Contractor undertakes any construction including improvements, betterments, upgrades and/or repairs the Contractor, the Contractor must provide All Risk Builders Risk/Installation Insurance at replacement cost for materials, supplies, equipment, machinery and fixtures that are or will be part of the project.

Coverages must include but are not limited to the following: material stored off-site and in-transit, water including overflow, leakage, sewer backup and seepage, landscaping, damage to adjoining and existing property, debris removal, collapse, loss resulting from faulty workmanship or materials, mechanical-electrical breakdown or failure, testing, and extra expense. The City of Chicago is to be named as an additional insured and loss payee.

The Contractor is responsible for all loss or damage to personal property (including materials, equipment, tool and supplies) owned, rented or used by Contractor.

6) Contractors Pollution Liability

When any remediation work is performed which may cause a pollution exposure, Contractors Pollution Liability must be provided covering bodily injury, property damage and other losses caused by pollution conditions that arise from the Contract scope of services with limits of not less than \$1,000,000 per occurrence. Coverage must include completed operations, contractual liability, defense, excavation, environmental cleanup, remediation and disposal. When policies are renewed or replaced, the policy retroactive date must coincide with or precede, start of work on the Contract. A claims-made policy which is not renewed or replaced must have an extended reporting period of two (2) years. The City of Chicago is to be named as an additional insured on a primary, non-contributory basis.

7) Professional Liability

When any professional consultants perform work, services, or operations in connection with this Contract, Professional Liability Insurance covering acts, errors, or omissions must be maintained with limits of not less than \$2,000,000 for each claim. Coverage must include, but not limited to, the following: technology errors and omissions and pollution liability if environmental site assessments will be done. When policies are renewed or replaced, the policy retroactive date must coincide with, or precede, start of work on the Contract. A claims-made policy which is not renewed or replaced must have an extended reporting period of two (2) years.

B. ADDITIONAL REQUIREMENTS

Evidence of Insurance. Contractor must furnish the City, Connect Chicago Alliance, JV, 10510 West Zemke Road, 60666, original certificates of insurance and additional insured endorsement, or other evidence of insurance, to be in force on the date of this Contract, and renewal certificates of Insurance and endorsement, or such similar evidence, if the coverages have an expiration or renewal date occurring during the term of this Contract. Contractor must submit evidence of insurance prior to execution of Contract. The receipt of any certificate does not constitute Contract by the City that the insurance requirements in the Contract have been fully met or that the insurance policies indicated on the certificate are in compliance

with all requirements of Contract. The failure of the City to obtain, nor the City's receipt of, or failure to object to a non-complying insurance certificate, endorsement or other insurance evidence from Contractor, its insurance broker(s) and/or insurer(s) will not be construed as a waiver by the City of any of the required insurance provisions. Contractor must advise all insurers of the Contract provisions regarding insurance. The City in no way warrants that the insurance required herein is sufficient to protect Contractor for liabilities which may arise from or relate to the Contract. The City reserves the right to obtain complete, certified copies of any required insurance policies at any time.

Failure to Maintain Insurance. Failure of Contractor to comply with required coverage and terms and conditions outlined herein will not limit Contractor's liability or responsibility nor does it relieve Contractor of the obligation to provide insurance as specified in this Contract. Nonfulfillment of the insurance conditions may constitute a violation of the Contract, and the City retains the right to suspend this Contract until proper evidence of insurance is provided, or the Contract may be terminated.

Notice of Material Change, Cancellation or Non-Renewal. Contractor must provide for sixty (60) days prior written notice to be given to the City in the event coverage is substantially changed, canceled or non-renewed and ten (10) days prior written notice for non-payment of premium.

Deductibles and Self-Insured Retentions. Any deductibles or self-insured retentions on referenced insurance coverages must be borne by Contractor.

Waiver of Subrogation. Contractor hereby waives its rights and its insurer(s)' rights of subrogation and agrees to require their insurers to waive their rights of subrogation against the City under all required insurance herein for any loss arising from or relating to this Contract. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City received a waiver of subrogation endorsement for Contractor's insurer(s).

Contractors Insurance Primary. All insurance required of Contractor under this Contract must be endorsed to state that Contractor's insurance policy is primary and not contributory with any insurance carrier by the City.

No Limitation as to Contractor's Liabilities. The coverages and limits furnished by Contractor in no way limit the Contractor's liabilities and responsibilities specified within the Contract or by law.

No Contribution by City. Any insurance or self-insurance programs maintained by the City do not contribute with insurance provided by Contractor under this Contract.

Insurance not Limited by Indemnification. The required insurance to be carried is not limited by any limitations expressed in the indemnification language in this Contract or any limitation placed on the indemnity in this Contract given as a matter of law.

Insurance and Limits Maintained. If Contractor maintains higher limits and/or broader coverage than the minimums shown herein, the City requires and must be entitled the higher limits and/or broader coverage maintained by Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage must be available to the City.

Joint Venture or Limited Liability Company. If Contractor is a joint venture or limited liability company, the insurance policies must name the joint venture or limited liability company as a named insured.

Other Insurance obtained by Contractor. If Contractor desires additional coverages, Contractor will be responsible for the acquisition and cost.

Insurance required of Subcontractors. Contractor must name Subcontractor(s) as a named insured(s) under Contractor's insurance or Contractor will require each Subcontractor(s) to provide and maintain Commercial General Liability, Commercial Automobile Liability, Worker's Compensation and Employers Liability Insurance and when applicable Excess/Umbrella Liability Insurance with coverage at least as broad as in outlined in Section A, Insurance Required. The limits of coverage will be determined by Contractor but be no less than \$5,000,000 per occurrence for access to airside and \$2,000,000 per occurrence for access to landside for Commercial General Liability and Auto Liability. Contractor must determine if Subcontractor(s) must also provide any additional coverage or other coverage outlined in Section A, Insurance Required. Contractor is responsible for ensuring that each Subcontractor has named the City as an additional insured where required and name the City as an additional insured under the Commercial General Liability on ISO form CG 2010 10 01 and

CG 2037 10 01 for ongoing operation and completed operations or an endorsement form at least as broad and acceptable to the City Contractor is also responsible for ensuring that each Subcontractor has complied with the required coverage and terms and conditions outlined in this Section B, Additional Requirements. When requested by the City, Contractor must provide to the City certificates of insurance and additional insured endorsements or other evidence of insurance. The City reserves the right to obtain complete, certified copies of any required insurance policies at any time. Failure of the Subcontractors to comply with required coverage and terms and conditions outlined herein will not limit Contractor's liability or responsibility.

City's Right to Modify. Notwithstanding any provisions in the Contract to the contrary, the City, Department of Finance, Risk Management Office maintains the right to modify, delete, alter or change these requirements.

INSURANCE CERTIFICATE OF COVERAGE

Named Insured: _____

Specification #: _____

Address: _____

RFP: _____

(City) (State) (Zip)

Project#: _____

Contract#: _____

| | |
|-----------------------------------|--|
| Description of Operation/Location | |
|-----------------------------------|--|

The insurance policies and endorsements indicated below have been issued to the designated named insured with the policy limits as set forth herein covering the operation described within the contract involving the named insured and the City of Chicago. The Certificate issuer agrees that in the event of cancellation, non-renewal or material change involving the indicated policies, the issuer will provide at least sixty (60) days prior written notice of such change to the City of Chicago at the address shown on this Certificate. This certificate is issued to the City of Chicago in consideration of the contract entered into with the named insured, and it is mutually understood that the City of Chicago relies on this certificate as a basis for continuing such agreement with the named insured:

| Type of Insurance | Insurer Name | Policy Number | Expiration Date | Limits of Liability All Limits in Thousands |
|--|--------------|---------------|-----------------|---|
| General Liability <input type="checkbox"/> Claims made <input type="checkbox"/> Occurrence <input type="checkbox"/> Premise-Operations <input type="checkbox"/> Explosion/Collapse Underground <input type="checkbox"/> Products/Completed-Operations <input type="checkbox"/> Blanket Contractual <input type="checkbox"/> Broad Form Property Damage <input type="checkbox"/> Independent Contractors <input type="checkbox"/> Personal Injury <input type="checkbox"/> Pollution | | | | CSL Per Occurrence \$ _____ General Aggregate \$ _____ Products/Completed Operations Aggregate \$ _____ |
| Automobile Liability | | | | CSL Per Occurrence \$ _____ |
| <input type="checkbox"/> Excess Liability <input type="checkbox"/> Umbrella Liability | | | | Each Occurrence \$ _____ |
| Worker's Compensation and Employer's Liability | | | | Statutory/Illinois Employers Liability \$ _____ |
| Builders Risk/Course of Construction | | | | Amount of Contract |
| Professional Liability | | | | \$ _____ |
| Owner Contractors Protective | | | | \$ _____ |
| Other | | | | \$ _____ |

- a) Each Insurance policy required by this agreement, excepting policies for worker's compensation and professional liability, will read: "The City of Chicago is an additional insured as respects operations and activities of, or on behalf of the named insured, performed under contract with or permit from the City of Chicago."
- b) The General, Automobile and Excess/Umbrella Liability Policies described provide for severability of Interest (cross liability) applicable to the named insured and the City.
- c) Workers Compensation and Property Insurers shall waive all rights of subrogation against the City of Chicago.
- d) The receipt of this certificate by the City does not constitute agreement by the City that the insurance requirements in the contract have been fully met, or that the insurance policies indicated by this certificate are in compliance with all contract requirements.

| | |
|--|--|
| Name and Address of Certificate Holder and Recipient of Notice Certificate Holder/Additional Insured: City of Chicago Department of Procurement Services 121 N. LaSalle St., #806 Chicago, IL 60602 | Signature of Authorized Rep.: _____ Agency/Company: _____ Address: _____ Telephone: _____ |
|--|--|

For City use only

Name of City Department requesting certificate: (Using Dept.) _____

Address: _____ Zip Code: _____ Attention: _____

**SECTION 3
BID FORM
CONTRACT BASE BID**

BIDDER: _____

The Bidder agrees to submit its bid without limitations or exceptions, except as permitted by the Contract Documents.

The Bidder further agrees that if awarded the Contract, the Bidder shall perform the Contract with no limitations or exceptions.

The Bidder shall complete both this Contract Base Bid and the Award Criteria Figure for its bid. Contract Documents submitted without both figures may be rejected as non-responsive. The Contract Base Bid amount will be used to determine the Award Criteria Figure.

If no Chicago Business Preference or Local Manufacture Preference, or Child Support Penalty or Small Business and Veteran-owned Business Enterprise Joint Venture Preference is applicable, then the Award Criteria Figure is the Evaluated Bid Amount. If the Chicago Business Preference is applicable, the Award Criteria Figure will be adjusted using 2% Chicago Business Preference to compute the Evaluated Bid Amount. If the Local Manufacture Preference is applicable, the Award Criteria figure will be adjusted using the 1% - 2% Local Manufacture Preference to compute the Evaluated Bid Amount, provided that the Chicago Business Preference is not applicable. The Chicago Business Preference and the Local Manufacture Preference may not be applied concurrently to compute the Evaluated Bid amount. If the Child Support Penalty is applicable, the Award Criteria Figure will be adjusted using the 8% Child Support Penalty to compute the Evaluated Bid Amount. If the Small Business and Veteran-owned Business Enterprise Joint Venture Preference is applicable, the Award Criteria Figure will be adjusted using 5% Small Business and Veteran-owned Business Enterprise Joint Venture Preference to compute the Evaluated Bid Amount. The Child Support Penalty and Small Business and Veteran-owned Business Enterprise Joint Venture Preference may be applied concurrently to compute the Evaluated Bid Amount along with either the Chicago Business Preference or the Local Manufacture Preference, should the bidder be eligible for those preferences.

The Contract Base Bid shall include the entire scope of work and requirements of Part One, Part Two, Part Three and the Contract Drawings of the Contract Documents.

A Contract in the amount of the Contract Base Bid will be awarded to the responsive and responsible Bidder, as determined by the Chief Procurement Officer, offering the lowest Evaluated Bid Amount.

CONTRACT BASE BID

_____ (Words)

Dollars (\$) _____
(Figures)

NOTE: STOP! COMPLETE THE BASIS OF CONTRACT AWARD CRITERIA DETERMINATION IN SECTION FOUR BEFORE COMPLETING THE AWARD CRITERIA FIGURE BELOW.

AWARD CRITERIA FIGURE

(Line 15 of the Canvassing Formula on Page S4-4)

_____ (Words)

Dollars (\$) _____
(Figures)

SCHEDULE OF PRICES
Recirculation Bridge Replacement
Specification No.: 800480

Bidder: _____

| ITEM NO. | PAY ITEM NO. | DESCRIPTION | UNIT | ESTIMATED QUANTITY | UNIT PRICE | TOTAL PRICE |
|----------|--------------|--|-------|--------------------|--------------|--------------|
| 1 | M-101-01 | MOBILIZATION MUST NOT EXCEED 6% OF TOTAL BID PRICE | LS | 1 | | |
| 2 | M-101-5.02 | CLOSEOUT DOCUMENTATION | LS | 1 | \$150,000.00 | \$150,000.00 |
| 3 | 01010-5.01 | ALLOWANCE FOR WORKFORCE DEVELOPMENT | AL | 1 | \$50,000.00 | \$50,000.00 |
| 4 | 01010-5.02 | ALLOWANCE FOR UNFORSEEN UTILITY INVESTIGATION AND CONFLICTS | AL | 1 | \$100,000.00 | \$100,000.00 |
| 5 | 01010-5.03 | ALLOWANCE FOR OPERATION IMPACTS (INCLUDING LANDSIDE OPERATIONS/AIRLINE/TENANT) | AL | 1 | \$100,000.00 | \$100,000.00 |
| 6 | 01502-5.01 | TRAFFIC CONTROL AND PROTECTION | LS | 1 | | |
| 7 | 01502-5.02 | FURNISH, INSTALL, AND REMOVE TEMPORARY CONCRETE BARRIER | FOOT | 1,129 | | |
| 8 | 01502-5.03 | RELOCATE TEMPORARY CONCRETE BARRIER | FOOT | 2,224 | | |
| 9 | 01502A-5.01 | IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2 | EACH | 7 | | |
| 10 | 01502A-5.02 | IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2 | EACH | 7 | | |
| 11 | 02074-5.01 | REMOVE PCC PAVEMENT | SQ YD | 622 | | |
| 12 | 02074-5.02 | REMOVE TEMPORARY PAVEMENT | SQ YD | 486 | | |
| 13 | 02074-5.03 | REMOVE MEDIAN | SQ FT | 5,418 | | |
| 14 | 02220A-5.01 | REMOVAL OF EXISTING STRUCTURES | EACH | 1 | | |
| 15 | 02220B-5.01 | CONCRETE REMOVAL | CU YD | 17.8 | | |
| 16 | 02220C-5.01 | PROTECTIVE SHIELD | SQ YD | 1,185 | | |
| 17 | 02255A-5.01 | TEMPORARY EARTH RETENTION SYSTEM | SQ FT | 315 | | |
| 18 | 02315A-5.01 | STRUCTURE EXCAVATION | CU YD | 202 | | |
| 19 | 02601-5.01 | VITRIFIED CLAY PIPE (VCP), 8-INCH, EXTRA STRENGTH, TYPE 2 | FOOT | 199 | | |

SCHEDULE OF PRICES
Recirculation Bridge Replacement
Specification No.: 800480

Bidder: _____

| ITEM NO. | PAY ITEM NO. | DESCRIPTION | UNIT | ESTIMATED QUANTITY | UNIT PRICE | TOTAL PRICE |
|----------|--------------|--|-------|--------------------|------------|-------------|
| 20 | 02601-5.02 | VITRIFIED CLAY PIPE (VCP), 12-INCH, EXTRA STRENGTH, TYPE 2 | FOOT | 63 | | |
| 21 | 02601A-5.01 | DRAINAGE SCUPPERS, DS-12 | EACH | 4 | | |
| 22 | 02601B-5.01 | DRAINAGE SYSTEM | LS | 1 | | |
| 23 | 02601C-5.01 | GEOCOMPOSITE WALL DRAIN | SQ YD | 39 | | |
| 24 | 02621-5.01 | MANHOLE TYPE A, 3-FOOT DIA (NON-AIRCRAFT LOADING) | EACH | 2 | | |
| 25 | 02621-5.02 | INSPECTION HOLE | EACH | 3 | | |
| 26 | 02621-5.03 | CATCH BASIN TYPE A, 4-FOOT DIA. (NON-AIRCRAFT LOADING) | EACH | 4 | | |
| 27 | 02705-5.01 | ABANDON PIPE IN-PLACE, GROUT SOLID | CU YD | 1 | | |
| 28 | 02714-5.01 | PORTLAND CEMENT CONCRETE PAVEMENT FULL DEPTH | SQ YD | 622 | | |
| 29 | 02714-5.02 | PCC BOOTH ISLAND | SQ FT | 345 | | |
| 30 | 02714-5.03 | REMOVE AND REPLACE, PCC REINFORCE SIDEWALK, FULL DEPTH | SQ FT | 474 | | |
| 31 | 02714-5.04 | COMBINATION CURB AND GUTTER, TYPE M-6.18 | FOOT | 87 | | |
| 32 | 02714A-5.01 | CONCRETE BARRIER, DOUBLE FACE, 32 INCH HEIGHT | FOOT | 50 | | |
| 33 | 02714A-5.02 | CONCRETE BARRIER BASE | FOOT | 50 | | |
| 34 | 02720-5.01 | AGGREGATE BASE COURSE, CA-6 | CU YD | 244 | | |
| 35 | 02720A-5.01 | GRANULAR BACKFILL FOR STRUCTURES | CU YD | 30 | | |
| 36 | 02745A-5.01 | TEMPORARY PAVEMENT | SQ YD | 486 | | |
| 37 | 02783-5.01 | TEMPORARY PAVEMENT MARKING LINE, 4-INCH | FOOT | 486 | | |
| 38 | 02783-5.02 | TEMPORARY PAVEMENT MARKING LINE, 6-INCH | FOOT | 6,522 | | |
| 39 | 02783-5.03 | TEMPORARY PAVEMENT MARKING LINE, 24-INCH | FOOT | 71 | | |

SCHEDULE OF PRICES
Recirculation Bridge Replacement
Specification No.: 800480

Bidder: _____

| ITEM NO. | PAY ITEM NO. | DESCRIPTION | UNIT | ESTIMATED QUANTITY | UNIT PRICE | TOTAL PRICE |
|----------|--------------|--|-------|--------------------|------------|-------------|
| 40 | 02783-5.04 | TEMPORARY PAVEMENT MARKING LINE, REMOVAL | SQ FT | 4,000 | | |
| 41 | 02783-5.05 | PAVEMENT MARKING LINE, EPOXY, 4-INCH | FOOT | 1,253 | | |
| 42 | 02783-5.06 | PAVEMENT MARKING LINE, EPOXY, 6-INCH | FOOT | 3,259 | | |
| 43 | 02783-5.07 | PAVEMENT MARKING LINE, EPOXY, 12-INCH | FOOT | 503 | | |
| 44 | 02783-5.08 | PAVEMENT MARKING LINE, EPOXY, 24-INCH | FOOT | 15 | | |
| 45 | 02783-5.09 | PAVEMENT MARKING, LETTERS AND SYMBOLS, EPOXY | SQ FT | 50 | | |
| 46 | 02839A-5.01 | REMOVE AND RE-ERECT OVERHEAD SIGN SUPERSTRUCTURE - BRIDGE MOUNTED, 10' X 24' | EACH | 1 | | |
| 47 | 02839A-5.02 | REMOVE AND RE-ERECT OVERHEAD SIGN SUPERSTRUCTURE - BRIDGE MOUNTED, 10' X 58' | EACH | 1 | | |
| 48 | 02839B-5.01 | OVERHEAD SIGN SUPERSTRUCTURE - BRIDGE MOUNTED | FOOT | 82 | | |
| 49 | 02875-5.01 | STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS | FOOT | 344 | | |
| 50 | 02875-5.02 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) | EACH | 1 | | |
| 51 | 02875-5.03 | TRAFFIC BARRIER TERMINAL, TYPE 2 | EACH | 1 | | |
| 52 | 02875-5.04 | TRAFFIC BARRIER TERMINAL, TYPE 5 | EACH | 1 | | |
| 53 | 02875-5.05 | TRAFFIC BARRIER TERMINAL, TYPE 6 | EACH | 1 | | |
| 54 | 02920-5.01 | TOPSOILING | SQ YD | 571 | | |
| 55 | 02930-5.01 | TREE, HONEYLOCUST, 4-INCH CAL. | EACH | 5 | | |
| 56 | 02930-5.02 | PENSTEMON HUSKER'S RED, #1 POT (1 GAL.) | EACH | 315 | | |
| 57 | 02930-5.03 | STELLA DE ORO DAYLILY, #1 POT (1 GAL.) | EACH | 790 | | |
| 58 | 02930-5.04 | WELCOMING TRUMPETS MIX DAFFODILS | EACH | 950 | | |
| 59 | 02931-5.01 | SEED, PERMANENT | SQ YD | 571 | | |
| 60 | 02970-5.01 | REMOVE AND REPLACE IRRIGATION SYSTEM | LS | 1 | | |

SCHEDULE OF PRICES
Recirculation Bridge Replacement
Specification No.: 800480

Bidder: _____

| ITEM NO. | PAY ITEM NO. | DESCRIPTION | UNIT | ESTIMATED QUANTITY | UNIT PRICE | TOTAL PRICE |
|----------|--------------|---|-------|--------------------|------------|-------------|
| 61 | 03200A-5.01 | REINFORCEMENT BARS, EPOXY COATED | POUND | 110,770 | | |
| 62 | 03200B-5.01 | BAR SPLICERS | EACH | 740 | | |
| 63 | 03300A-5.01 | CONCRETE STRUCTURES | CU YD | 150.4 | | |
| 64 | 03300B-5.01 | CONCRETE SUPERSTRUCTURE | CU YD | 318.8 | | |
| 65 | 03300C-5.01 | CONCRETE SUPERSTRUCTURE (APPROACH SLAB) | CU YD | 45.9 | | |
| 66 | 03300D-5.01 | BRIDGE DECK GROOVING | SQ YD | 990 | | |
| 67 | 03300E-5.01 | CONCRETE SEALER | SQ FT | 3,484 | | |
| 68 | 03300F-5.01 | PROTECTIVE COAT | SQ YD | 1,315 | | |
| 69 | 05120A-5.01 | FURNISHING AND ERECTING STRUCTURAL STEEL | LS | 1 | | |
| 70 | 05120B-5.01 | STUD SHEAR CONNECTORS | EACH | 9,666 | | |
| 71 | 05500A-5.01 | ALUMINUM RAILING, TYPE L | FOOT | 214 | | |
| 72 | 05500B-5.01 | NAME PLATES | EACH | 1 | | |
| 73 | 05800A-5.01 | ANCHOR BOLTS, 1" | EACH | 72 | | |
| 74 | 05800B-5.01 | ELASTOMERIC BEARING ASSEMBLY, TYPE I | EACH | 18 | | |
| 75 | 05800C-5.01 | PREFORMED JOINT STRIP SEAL | FOOT | 90 | | |
| 76 | 10462-5.01 | BOLLARD | EACH | 7 | | |
| 77 | 16010-5.01 | REMOVAL OF LIGHTNING UNIT, NO SALVAGE | EACH | 43 | | |
| 78 | 16010-5.02 | REMOVE AND REINSTALL VIDEO CAMERA AND EQUIPMENT | EACH | 2 | | |
| 79 | 16010-5.03 | REMOVE AND REINSTALL SIGN, MESSAGE, ELECTRICALLY ILLUMINATED, BRACKET MOUNTED | EACH | 5 | | |
| 80 | 16100-5.01 | AUTOMATED GATE SYSTEM - DISCONNECT, RELOCATE AND INSTALL | LS | 1 | | |
| 81 | 16100-5.02 | CONDUIT ATTACHED TO STRUCTURE, 1" DIA., PVC COATED GALVANIZED STEEL | FOOT | 840 | | |

SCHEDULE OF PRICES
Recirculation Bridge Replacement
Specification No.: 800480

Bidder: _____

| ITEM NO. | PAY ITEM NO. | DESCRIPTION | UNIT | ESTIMATED QUANTITY | UNIT PRICE | TOTAL PRICE |
|----------|--------------|---|-------|--------------------|------------|-------------|
| 82 | 16100-5.03 | JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE | EACH | 58 | | |
| 83 | 16100-5.04 | REMOVE CONDUIT ATTACHED TO STRUCTURE | FOOT | 840 | | |
| 84 | 16100-5.05 | FLEXIBLE LIQUID TIGHT SS CONDUIT, 1" DIA, 6' LENGTH | EACH | 42 | | |
| 85 | 16100-5.06 | REMOVAL AND REPLACEMENT OF EXISTING COMMUNICATION WIRING | FOOT | 8,400 | | |
| 86 | 16100-5.07 | REMOVAL AND REPLACEMENT OF EXISTING DUCT BANK | FOOT | 100 | | |
| 87 | 16100-5.08 | REMOVAL AND RELOCATION OF EXISTING STANLESS STEEL ENCLOSURE AT PIER 103 | LS | 1 | | |
| 88 | 16100-5.09 | INSTALLATION OF NEW EXPRESS EXIT EQUIPMENT AND WIRING | LS | 1 | | |
| 89 | 16123-5.01 | REMOVAL OF CABLE IN CONDUIT | FOOT | 5,160 | | |
| 90 | 16123-5.02 | #10 AWG XHHW-2 WIRE | FOOT | 5,160 | | |
| 91 | 16123-5.03 | #8 AWG XHHW-2 WIRE | FOOT | 4,200 | | |
| 92 | 16520-5.01 | UNDERPASS LED LIGHT FIXTURE | EACH | 36 | | |
| 93 | 16520-5.02 | SIGNAGE LED LIGHT FIXTURE | EACH | 7 | | |
| 94 | L-115-5.01 | ELECTRICAL HANDHOLES | EACH | 2 | | |
| 95 | P-151-5.01 | TREE REMOVAL, 6 INCHES TO 18 INCHES, BUTT DIAMETER | EACH | 5 | | |
| 96 | P-156-5.01 | INLET PROTECTION | EACH | 16 | | |
| 97 | P-156-5.02 | EROSION CONTROL BLANKET | SQ YD | 199 | | |
| 98 | X-100-5.01 | REMOVE PCC BOOTH ISLAND | SQ FT | 345 | | |
| 99 | X-100-5.02 | REMOVE CONCRETE BARRIER | FOOT | 50 | | |
| 100 | X-100-5.03 | REMOVE GUARDRAIL | FOOT | 344 | | |
| 101 | X-100-5.04 | REMOVE BOOTH #41, SALVAGE AND RETURN TO OWNER | LS | 1 | | |

SCHEDULE OF PRICES
Recirculation Bridge Replacement
Specification No.: 800480

Bidder: _____

| ITEM NO. | PAY ITEM NO. | DESCRIPTION | UNIT | ESTIMATED QUANTITY | UNIT PRICE | TOTAL PRICE |
|----------|--------------|------------------------------|-------------------------------|--------------------|------------|-------------|
| 102 | X-100-5.05 | REMOVE STORM SEWER STRUCTURE | EACH | 4 | | |
| 103 | X-100-5.06 | REMOVE PAVEMENT MARKINGS | SQ FT | 505 | | |
| 104 | X-100-5.07 | REMOVE CURB AND GUTTER | FOOT | 87 | | |
| | | | CONTRACT BASE BID: | | \$ _____ | |
| | | | AWARD CRITERIA FIGURE: | | \$ _____ | |

NOTES TO BIDDER:

- 1) Total price for mobilization must not exceed 6.0% of the Contract Base Bid.
- 2) Award Criteria Figure as calculated on page S4-4.
- 3) Bidders should round all quoted prices to the nearest two decimal points.
- 4) In the event of discrepancy between the "Unit Price" and the "Total Price" the Unit Price will prevail.
- 5) The Chief Procurement Officer reserves the right to make corrections, after receiving the bids, to any clerical error apparent on the above Line Items, including but not limited to obviously incorrect units or misplaced decimal points, or arithmetic error. The Bidder must bid all line items set forth on the Schedule of Prices, except to the extent that the Specifications expressly allows otherwise. In the event that comparison of the Bidder's 'Unit Price' and 'Total Price' submitted for any line item reveals a calculation error, the Unit Price will prevail.
- 6) The Commissioner has determined per Part Two, General Conditions that the safety representative for this project IS permitted to have other responsibilities.

SECTION 4 TIME OF COMPLETION

The Contract duration is five hundred forty (540) calendar days for the entire scope of work, which includes all mobilization and all construction from the date of the Notice to Proceed issued by the Commissioner in accordance with Part Two, General Conditions of the Contract Documents.

The date specified in the Notice To Proceed for commencement of work will not be counted as a calendar day, but each subsequent day thereafter, from midnight to midnight will be counted as one (1) calendar day and the last day counted will be the day on which the Contractor shall have substantially completed, and the Commissioner shall have accepted as substantially completed, the entire Work under this Contract.

The Contractor shall complete the entire scope of work, and the intermediate milestones, within the durations shown on the table found on page S4-3.

LIQUIDATED DAMAGES FOR DELAY

As provided in Article VIII., Section A., Paragraph 4, of Part Two of the Contract, liquidated damages shall be as assessed as shown on the table found on page S4-3.

Note: Nothing herein contained shall be construed as limiting the right of the City to recover from the Contractor any and all amounts due or to come due, and any and all costs and expenses sustained by the City for improper performance hereunder, repudiation of the Contract by the Contractor, failure to perform or breach or breaches in any other respect, including but not limited to, defective workmanship or materials.

WEATHER and MORATORIUM DAYS

As provided in Article VIII., Section B, Paragraph 4a, of Part Two of the Contract, Weather and Moratorium days shall be allocated as shown in the table found on page S4-3. No additional time will be granted for weather delays associated with this contract. All Work must be completed within the time period indicated in the Contract. However, weather events, which are exceptionally irregular, are excluded. An exceptional weather event shall be defined as an event that prevents work on one (1) or more Critical Path activities for eleven (11) or more consecutive planned workdays. Planned workdays shall be indicated on the three-week look-ahead schedule. The eleventh (11th) consecutive planned workday prevented from occurring by an exceptional irregular weather event shall be grounds for requesting a time extension for that day.

FAA-mandated Holiday Moratorium (work suspensions) dates during the Thanksgiving and Christmas Holidays will affect work. This project will also observe a Winter Suspension period. The anticipated dates are as follows:

A. Thanksgiving Moratorium

Work on this Contract will be underway through the 2019 Thanksgiving and Christmas Moratoriums. However, typically about 10-11 days (later weeks of November) of work stand down occur, with work only permitted by an approved FAA Waiver. In 2019, the anticipated work stand-down period will be from November 16, 6 PM CST through November 26, 2 AM CST.

B. Christmas Moratorium

The Christmas Moratorium typically lasts about 15 days from late December to first week of January. In 2019, it is anticipated that the work stand-down period will be on or around December 21, 2019 at 6 PM CST through January 2, 2020 at 2 AM CST.

C. Winter Suspension

Work on this project is not subject to an annual winter suspension. Any additional costs incurred as a result of performing winter work should be included in the associated pay items. Additionally, no additional time will be granted for weather days or exceptional weather events during this period. Any work activities performed during the winter suspension

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period, is solely at the Contractor's discretion.

**SECTION 4
TIME OF COMPLETION/LIQUIDATED DAMAGES/WEATHER AND MORATORIUM DAYS TABLE**

| MILESTONE | DESCRIPTION OF WORK INCLUDING RESTRICTIONS | DURATION (inclusive of Weather and Moratorium Days) | LIQUIDATED DAMAGES (per each day exceeding the indicated duration) | WEATHER DAYS |
|------------------|---|--|---|---------------------|
| Mobilization | Project mobilization | 30 Calendar Days | 0 | 0 |
| PHASE 1 | | | | |
| Milestone 1 | Area A-3 Demolition of Phase 1 - Span 3 | 30 Calendar Days | 0 | 0 |
| Milestone 2 | Area A-1 Demolition of Phase 1 - Span 1 | 30 Calendar Days | 0 | 0 |
| Milestone 3 | Area A-2 Demolition / Construction of Phase 1 - Span 2 | 180 Calendar Days | 0 | 0 |
| PHASE 2 | | | | |
| Milestone 4 | Area B-3 Demolition of Phase 2 - Span 3 | 30 Calendar Days | 0 | 0 |
| Milestone 5 | Area B-1 Demolition of Phase 2 - Span 1 | 30 Calendar Days | 0 | 0 |
| Milestone 6 | Area B-2 Demolition / Construction of Phase 2 - Span 2 | 210 Calendar Days | 0 | 0 |
| Punch List | Overall project | 45 Calendar Days | \$1,000 | 0 |
| | | | | |

Bidder: _____

AWARD CRITERIA DETERMINATION

In accordance with Chapter 2-92 of the Municipal Code of Chicago, and in order to promote equality of opportunity for minority and female personnel on this project, the City of Chicago has established the following canvassing formula for the purpose of evaluating proposals and awarding the contract.

Each bidder is invited to propose the minority and female employee utilization goals for the project, as percentages of the journeyworker and apprentice and laborer hours to be expended in the construction of the project. Lines 2, 4, and 6 in the formula shall not be greater than 70 percent in each category, for the purpose of canvassing only. The 70 percent limit shall not deter or restrict the fuller utilization of minority employees for the project, but shall only serve as a limiting figure for use in the formula. Similarly, lines 8, 10, and 12 shall not be greater than 15 percent in each category, for the purpose of canvassing only. Actual amounts of minority and female work will be measured for the total hours of construction workers employed on the projects within each of the categories of journeyworkers, apprentice, laborers by the contractor and all of the worksite subcontractors.

Canvassing Formula

| | | |
|----------|---|-------|
| Line 1. | Base Bid, in figures | _____ |
| Line 2. | Percentage of the total journeyworker hours that the Contractor proposes to be worked by minority Journeyworkers during construction of the Project. (Maximum figure .70) | _____ |
| Line 3. | Multiply Line 2 by Line 1 by 0.04 | _____ |
| Line 4. | Percentage of the total Apprentice hours that the Contractor proposes to be worked by minority Apprentices during construction of the project. (Maximum figure .70) | _____ |
| Line 5. | Multiply Line 4 by Line 1 by 0.03 | _____ |
| Line 6. | Percentage of the total Laborer hours that the Contractor proposes to be worked by minority Laborers during construction of the project. (Maximum figure .70) | _____ |
| Line 7. | Multiply Line 6 by Line 1 by .01 | _____ |
| Line 8. | Percentage of the total Journeyworker hours that the Contractor proposes to be worked by female Journeyworkers during construction of the project. (Maximum figure .15) | _____ |
| Line 9. | Multiply Line 8 by Line 1 by 0.04 | _____ |
| Line 10. | Percentage of the total Apprentice hours that the Contractor proposes to be worked by female Apprentices during construction of the project. (Maximum figure .15) | _____ |
| Line 11. | Multiply Line 10 by Line 1 by 0.03 | _____ |
| Line 12. | Percentage of the total Laborer hours that the Contractor proposes to be worked by female Laborers during construction of the project. (Maximum figure .15) | _____ |
| Line 13. | Multiply Line 12 by Line 1 by 0.01 | _____ |
| Line 14. | Summation of Lines 3, 5, 7, 9, 11, and 13 | _____ |
| Line 15. | Subtract Line 14 from Line 1 = Award Criteria Figure | _____ |

The bidder shall complete the Canvassing Formula and transfer the final Award Criteria Figure, Line 15, to the space provided on the itemized Proposal Sheet. A contract in the amount of the Total Base Bid will be awarded to be responsible bidder with the lowest Award Criteria Figure. The City reserves the right to revise all arithmetic calculations for correctness.

The Contractor is obliged during the construction of the Project to fulfill every numerical commitment made under the Canvassing Formula categories. Therefore, every limiting condition of circumstance which may affect referral, hiring, or deployment of construction trades employees must be taken into account by the bidder before the commitment is proposed. Limits imposed by the policies or circumstances of labor organizations or other referral resources, for example, should be anticipated by the bidder, since relief from the contractor’s obligations as established under the Canvassing Formula is not available due to such circumstances found to exist during Construction. Also, if Journeyworkers will not be employed in the project, or Apprentices, or Laborers, then the proposal made in the appropriate Lines, Lines 2 and 8, or Lines 4 and 10, or 6 and 12, should be entered as “0 percent” since no Journeyworker or Apprentice or Laborer hours are reported after construction, this will be computed by the City as “0 percent,” minority/female hours achieved.

If commitments are made in the Apprentice category, Lines 4 and 10, the total apprentice hours to be employed on the projects should be anticipated to be a substantial number of hours; since it is the intention of the City that where a commitment for a percentage of minority or female Apprentices has been made, the percentage may be counted as fulfilled only as long as there were provided at least 40 actual hours of minority or female employment as Apprentices. For this reason, where a minority or female percentage commitment has been made, if in the final audit of the performance of the Contract there are less than 40 actual hours of minority or female Apprentice work performed, then the number of minority or female apprentice hours will be counted by the City as “0” for the purpose of measuring the achievement towards the apprentice canvassing formula goal.

Therefore, notice that when the Contractor is performing at a level under a minority or female Apprentice goal, Line 4 or Line 10 above, the Contractor will be subject to the full amount of liquidated damages, see Lines 5 and 11, if at least 40 actual hours of minority or female Apprenticeship work are not achieved. When the bidder foresees that this minimum amount of apprenticeship is not available to the project, then “0” should be put in Lines 4 and 10 as the percentage commitment for apprentices.

The Contractor is obligated to meet the total commitment made in each category, subject to liquidated damages as described below for noncompliance. The Contractor hereby consents and agrees that, in the event of failure to comply with each of the minimum commitments submitted with the proposal on Lines 2, 4, 6, 8, 10, and 12 of the canvassing formula, covering Journeyworkers, Apprentices, and Laborers, respectively, the following shall apply to determine a monetary sum to be withheld from the final payment to the Contractor.

In calculating the aggregated work hours toward the utilization goal for construction Journeyworkers, Apprentices, or Laborers under this Canvassing Formula, the Contractor shall be given 150% credit for every work hour performed by a minority or woman worker residing within a socio-economically disadvantaged area. The criteria for designation of an area as socio-economically disadvantaged, which include but are not limited the median family income of an area, is set forth in rules promulgated by the Commissioner of Planning and Development. Areas designated as socio-economically disadvantaged at the time of contract solicitation are shown on the attached map.

Liquidated Damages

For each one percent (1%) deficiency of minority Journeyworkers not utilized toward the goal (Line 2), four cents for each hundred dollars of the base bid, calculated as follows:

| | | |
|--------|---|-----|
| Line 1 | X | .04 |
| 100 | | |

Each one percent (1%) deficiency of shortfall toward the goal line (Line 8) for female Journeyworkers shall be computed in the same way.

For each one percent (1%) deficiency of minority Apprentices not utilized toward the goal (Line 4), three cents per each hundred dollars on the base bid, calculated as follows:

| | | |
|--------|---|-----|
| Line 1 | X | .03 |
| 100 | | |

Each one percent (1%) of shortfall toward the goal (Line 10) for female Apprentices shall be computed in the same way.

For each one percent (1%) deficiency of minority Laborers not utilized towards the goal (Line 6), one cent per each hundred dollars of the Base Bid, calculated as follows:

| | | |
|--------|---|-----|
| Line 1 | X | .01 |
| 100 | | |

Each one percent shortfall toward the goal (Line 12) for female Laborers shall be computed in the same way.

Reporting

The Contractor shall submit to the City on a timely basis a completed weekly certified payroll, (U.S. Department of Labor Form WH-347, Illinois Department of Transportation Form RE-48, or equivalent) with race and gender of employees clearly named or coded each week. The Contractor is responsible for forwarding every worksite Subcontractor’s weekly certified payroll. Supportive information regarding an employee’s race, gender or work classification of such is required by the City. Failure to report fully all required workforce information will subject the contractor to liquidated damages in the total amount listed in Line 14 above.

In the weekly payroll reports, the following ethnic categories should be used to indicate minority personnel for purposes of the canvassing formula:

| | | |
|-----------------|---|---|
| Black | — | Persons having origins in any of the Black racial groups of Africa. |
| Hispanic | — | Persons of Mexican, Puerto Rican, Cuban, Central American, or other Spanish culture or origin, regardless of race. |
| Native American | — | Persons who are American Indians, Eskimos, Aleuts or Native Hawaiians. |
| Asian Pacific | — | Persons whose origins are from Japan, China, Taiwan, Korea, Vietnam, Laos, Cambodia, the Philippines, Samoa, Guam, the U.S. Trust Territories or the Northern Marianas. |
| Asian Indian | — | Persons whose origins are from India, Pakistan, or Bangladesh. |

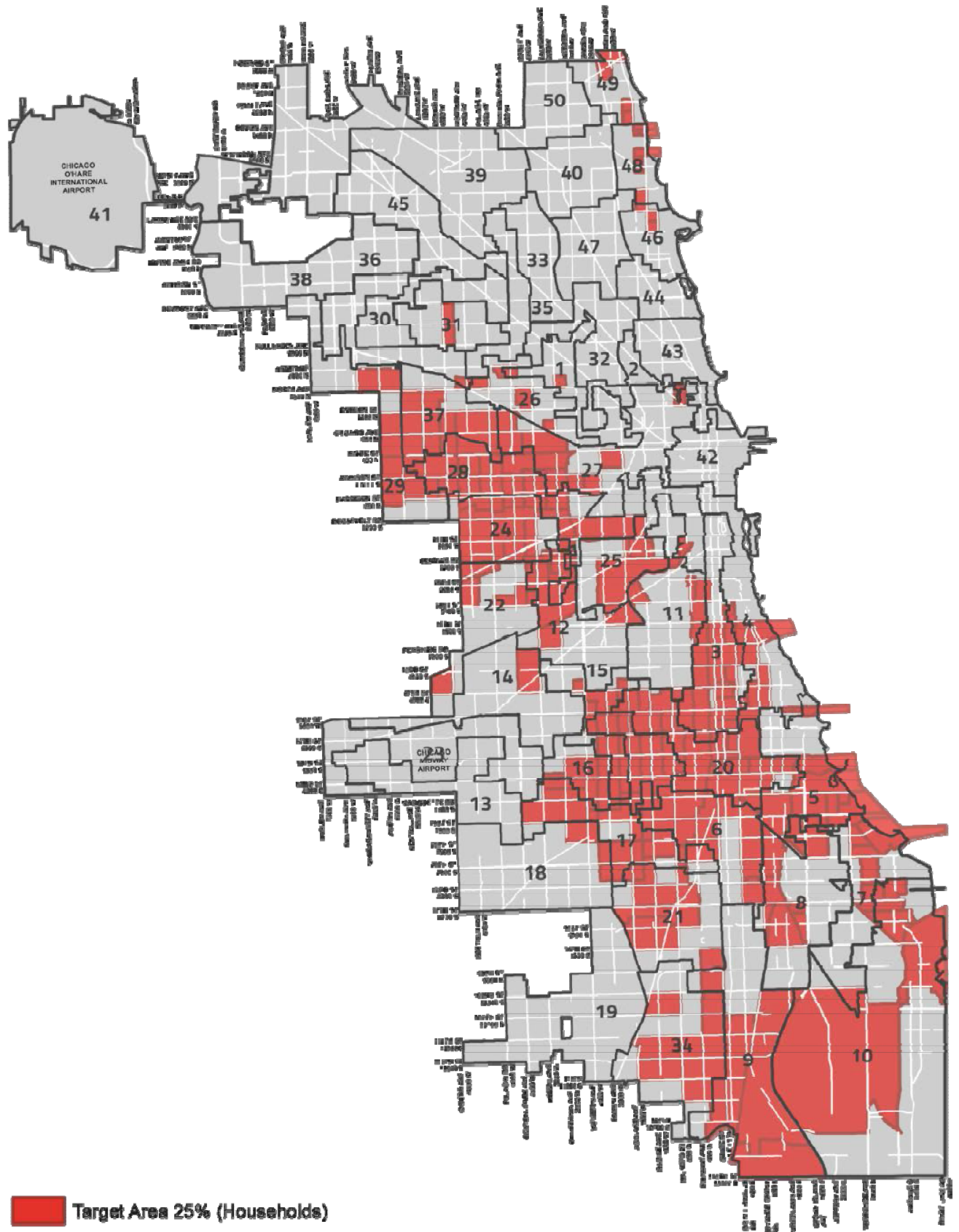
Included in the canvassing formula as “Journeyworkers” are the construction site Journeyworkers from the major trades including, without limitation, truck drivers, electrical groundsmen, and elevator construction helpers. Other “Helpers,” watchmen, custodial workers, clerical workers, and salaried superintendents are not creditable in the formula. Hourly wage “Foremen” and “General Foremen” will be counted as journeyworkers for purposes of the canvassing formula.

Included in the canvassing formula as “Apprentices” are only bona fide Apprentices currently in a training program certified by the U.S. Department of Labor — Bureau of Apprenticeship and Training, and for the hours employed at the construction site. Other categories of trainees are not creditable in the formula. Individual workers who are both minority and female will have their hours counted towards both a minority goal and any female goal.

Other Regulations

The adherence to the canvassing formula does not abrogate other responsibilities of the contractor to comply with equal employment opportunity requirements under federal or state law, municipal ordinance, prevailing government regulations or terms contained elsewhere in this contract.

SOCIO-ECONOMICALLY DISADVANTAGED AREAS



**SECTION 5
PROPOSAL TO BE EXECUTED BY A CORPORATION**

The undersigned, hereby acknowledges having received **Specification No. 800480** containing a full set of Contract Documents, including, but not limited to, 1) Instructions to Bidders (Proposers), 2) General Conditions, 3) Special Conditions, 4) Contract Plans or Drawings (if applicable) 5) Detailed Specifications or Scope of Services, Evaluation/Selection Criteria and Submittal Requirements (If RFP/RFQ), 6) Proposal Pages, 7) Certifications and 8) Addenda Nos. (none unless indicated here) _____, and affirms that the corporation shall be bound by all the terms and conditions contained in the Contract Documents, regardless of whether a complete set thereof is attached to this proposal, except only to the extent that the corporation has taken express written exception thereto in the sections of this specification designated for that purpose.

Under penalty of perjury, the undersigned: (1) warrants that he/she was authorized to submit an EDS on behalf of the Disclosing Party on-line; (2) warrants that all certifications and statements contained in the EDS are true, accurate and complete as of the date the EDS was submitted on-line; and (3) further warrants that, as of the date of submission of this proposal or bid, there have been no changes in Circumstances since the date that the EDS was submitted that would render any certification in the EDS false, inaccurate or incomplete.

Further, the undersigned being duly sworn deposes and says on oath that no disclosures of ownership interests have been withheld and the information provided therein to the best of its knowledge is current and the undersigned has not entered into any agreement with any other bidder (proposer) or prospective bidder (proposer) or with any other person, firm or corporation relating to the price named in this proposal or any other proposal, nor any agreement or arrangement under which any act or omission in restraining of free competition among bidders (proposers) and has not disclosed to any person, firm or corporation the terms of this bid (proposal) or the price named herein.

Proposals must be submitted with original signatures in the space provided. Proposals not properly signed will be rejected.

NAME OF CORPORATION: _____
(Print or Type)

SIGNATURE OF PRESIDENT*:
(Or Authorized Officer) _____
(Signature)

TITLE OF SIGNATORY: _____
(Print or Type)

BUSINESS ADDRESS: _____
(Print or Type)

*Note: In the event that this bid (proposal) is signed by other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization, such as a resolution by the Board of Directors, which permits the person to sign the offer for the Corporation.

ATTEST:

(Corporate Secretary Signature)
(Affix Corporate Seal)

State of _____

County of _____

This instrument was acknowledged before me on this _____ day of _____, 20_ by

_____ as President (or other authorized officer) and _____ as

Secretary of _____ (Corporation Name).
(Seal)

Notary Public Signature
Commission Expires: _____

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PROPOSAL TO BE EXECUTED BY A PARTNERSHIP

The undersigned, hereby acknowledges having received **Specification No. 800480** containing a full set of Contract Documents, including, but not limited to, 1) Instructions to Bidders (Proposers), 2) General Conditions, 3) Special Conditions, 4) Contract Plans or Drawings (if applicable) 5) Detailed Specifications or Scope of Services, Evaluation/Selection Criteria and Submittal Requirements (If RFP/RFQ), 6) Proposal Pages, 7) Certifications and 8) Addenda Nos. (none unless indicated here), and affirms that the partnership shall be bound by all the terms and conditions contained in the Contract Documents, regardless of whether a complete set thereof is attached to this proposal, except only to the extent that the partnership has taken express written exception thereto in the sections of this specification designated for that purpose.

Under penalty of perjury, the undersigned: (1) warrants that he/she was authorized to submit an EDS on behalf of the Disclosing Party on-line; (2) warrants that all certifications and statements contained in the EDS are true, accurate and complete as of the date the EDS was submitted on-line; and (3) further warrants that, as of the date of submission of this proposal or bid, there have been no changes in Circumstances since the date that the EDS was submitted that would render any certification in the EDS false, inaccurate or incomplete.

Further, the undersigned being duly sworn deposes and says on oath that no disclosures of ownership interests have been withheld and the information provided therein to the best of its knowledge is current and the undersigned has not entered into any agreement with any other bidder (proposer) or prospective bidder (proposer) or with any other person, firm or corporation relating to the price named in this proposal or any other proposal, nor any agreement or arrangement under which any act or omission in restraining of free competition among bidders (proposers) and has not disclosed to any person, firm or corporation the terms of this bid (proposal) or the price named herein.

Proposals must be submitted with original signatures in the space provided. Proposals not properly signed will be rejected.

BUSINESS NAME: _____
(Print or Type)

BUSINESS ADDRESS: _____
(Print or Type)

If you are operating under an assumed name, provide County registration number herein under as provided in the Illinois Revised Statutes 1965 Chapter 96 Sec. 4 et seq.

Registration Number: _____

SIGNATURES AND ADDRESSES OF ALL MEMBERS OF THE PARTNERSHIP

(If all General Partners do not sign, indicate authority of partner signatories by attaching copy of partnership agreement or other authorizing document):

Partner Signature: _____
(Signature)

Address: _____
(Print or Type)

Partner Signature: _____
(Signature)

Address: _____
(Print or Type)

Partner Signature: _____
(Signature)

Address: _____
(Print or Type)

State of _____

County of _____

This instrument was acknowledged before me on this _____ day of _____, 20__ by _____ as President (or other authorized officer) and _____ as Secretary of _____ (Corporation Name).

(Seal)

Notary Public Signature
Commission Expires: _____

(Rev. 04/29/11) Not for ProServe / A & E Use

PROPOSAL TO BE EXECUTED BY A SOLE PROPRIETOR

The undersigned, hereby acknowledges having received **Specification No.** 800480 containing a full set of Contract Documents, including, but not limited to, 1) Instructions to Bidders (Proposers), 2) General Conditions, 3) Special Conditions, 4) Contract Plans or Drawings (if applicable) 5) Detailed Specifications or Scope of Services, Evaluation/Selection Criteria and Submittal Requirements (If RFP/RFQ), 6) Proposal Pages, 7) Certifications and 8) Addenda Nos. **(none unless indicated here)** _____, and affirms that the sole proprietor shall be bound by all the terms and conditions contained in the Contract Documents, regardless of whether a complete set thereof is attached to this proposal, except only to the extent that the sole proprietor has taken express written exception thereto in the sections of this specification designated for that purpose.

Under penalty of perjury, the undersigned: (1) warrants that he/she was authorized to submit an EDS on behalf of the Disclosing Party on-line; (2) warrants that all certifications and statements contained in the EDS are true, accurate and complete as of the date the EDS was submitted on-line; and (3) further warrants that, as of the date of submission of this proposal or bid, there have been no changes in Circumstances since the date that the EDS was submitted that would render any certification in the EDS false, inaccurate or incomplete.

Further, the undersigned being duly sworn deposes and says on oath that no disclosures of ownership interests have been withheld and the information provided therein to the best of its knowledge is current and the undersigned has not entered into any agreement with any other bidder (proposer) or prospective bidder (proposer) or with any other person, firm or corporation relating to the price named in this proposal or any other proposal, nor any agreement or arrangement under which any act or omission in restraining of free competition among bidders (proposers) and has not disclosed to any person, firm or corporation the terms of this bid (proposal) or the price named herein.

Proposals must be submitted with original signatures in the space provided. Proposals not properly signed will be rejected.

SIGNATURE OF PROPRIETOR: _____
(Signature)

DOING BUSINESS AS: _____
(Print or Type)

Business Address: _____
(Print or Type)

If you are operating under an assumed name, provide County registration number herein under as provided in the Illinois Revised Statutes 1965 Chapter 96 Sec. 4 et seq.

Registration Number: _____
(Print or Type)

State of _____
County of _____

This instrument was acknowledged before me on this _____ day of _____, 20__ by _____ as President (or other authorized officer) and _____ as Secretary of _____ (Corporation Name).
(Seal)

Notary Public Signature
Commission Expires: _____

(Rev. 04/29/11) Not for ProServe / A & E Use

PROPOSAL TO BE EXECUTED BY A JOINT VENTURE

The undersigned, hereby acknowledges having received **Specification No. 800480** containing a full set of Contract Documents, including, but not limited to, 1) Instructions to Bidders (Proposers), 2) General Conditions, 3) Special Conditions, 4) Contract Plans or Drawings (if applicable) 5) Detailed Specifications or Scope of Services, Evaluation/Selection Criteria and Submittal Requirements (If RFP/RFQ), 6) Proposal Pages, 7) Certifications and 8) Addenda Nos. (none unless indicated here) _____, and affirms that the Joint Venture shall be bound by all the terms and conditions contained in the Contract Documents, regardless of whether a complete set thereof is attached to this proposal, except only to the extent that the Joint Venture has taken express written exception thereto in the sections of this specification designated for that purpose.

Under penalty of perjury, the undersigned: (1) warrants that he/she was authorized to submit an EDS on behalf of the Disclosing Party on-line; (2) warrants that all certifications and statements contained in the EDS are true, accurate and complete as of the date the EDS was submitted on-line; and (3) further warrants that, as of the date of submission of this proposal or bid, there have been no changes in Circumstances since the date that the EDS was submitted that would render any certification in the EDS false, inaccurate or incomplete.

Further, the undersigned being duly sworn deposes and says on oath that no disclosures of ownership interests have been withheld and the information provided therein to the best of its knowledge is current and the undersigned has not entered into any agreement with any other bidder (proposer) or prospective bidder (proposer) or with any other person, firm or corporation relating to the price named in this proposal or any other proposal, nor any agreement or arrangement under which any act or omission in restraining of free competition among bidders (proposers) and has not disclosed to any person, firm or corporation the terms of this bid (proposal) or the price named herein.

Proposals must be submitted with original signatures in the space provided. Proposals not properly signed will be rejected.

JOINT VENTURE NAME: _____
(Print or Type)

JOINT VENTURE ADDRESS: _____
(Print or Type)

If you are operating under an assumed name, provide County registration number herein under as provided in the Illinois Revised Statutes 1965 Chapter 96 Sec. 4 et seq.

Registration Number: _____

SIGNATURES AND ADDRESSES OF ALL MEMBERS OF THE JOINT VENTURE

(If all members of the Joint Venture do not sign, indicate authority of signatories by attaching copy of Joint Venture agreement or other authorizing document):

SIGNATURE OF
Authorized Party: _____
(Signature)

TITLE OF SIGNATORY: _____
(Print or Type)

BUSINESS ADDRESS: _____
(Print or Type)

ATTEST:

(Joint Venture Secretary Signature)
(Affix Joint Venture Seal)

OR
Joint Venturer
Signature: _____
(Signature)

Address: _____
(Print or Type)

Joint Venturer
Signature: _____

(Signature)

Address: _____

(Print or Type)

Joint Venturer
Signature: _____

(Signature)

Address: _____

(Print or Type)

State of _____

County of _____

This instrument was acknowledged before me on this _____ day of _____, 20__ by
_____ as President (or other authorized officer) and _____
as Secretary of _____ (Corporation Name).
(Seal)

Notary Public Signature

Commission Expires: _____

(Rev. 04/29/11) Not for ProServe / A & E Use

PROPOSAL ACCEPTANCE

Contract No.: _____

Specification No.: _____

Vendor Name: _____

Total Amount (Value): _____

Fund Chargeable: _____

The undersigned, on behalf of the CITY OF CHICAGO, a municipal corporation of the State of Illinois, hereby accept the foregoing bid items as identified in the proposal.

CITY OF CHICAGO

Mayor Date

Comptroller Date

Chief Procurement Officer Date

(Rev. 04/29/11) Not for ProServe / A & E Use

INSTRUCTIONS FOR COMPLETING ECONOMIC DISCLOSURE STATEMENT AND AFFIDAVIT (EDS) ON-LINE

The Bidder shall complete an online EDS prior to the bid due date. A Bidder who does not file an electronic EDS prior to the bid due date may be found non-responsive and its bid rejected. If you are unable to complete the online EDS and print a Certificate of Filing prior to the bid/proposal due date, the City will accept a paper EDS provided written justification is submitted with the bid/proposal explaining the Bidder’s good faith efforts to complete it before the bid/proposal due date and the reasons why on line EDS could not be completed.

1.1. **ONLINE EDS FILING REQUIRED PRIOR TO BID OPENING**

The Bidder must complete an online EDS prior to the bid opening date.

A Bidder that does not file an electronic EDS prior to the bid opening will be found non-responsive and its bid will be rejected, unless a paper EDS and justification is submitted with the bid as described above. Paper EDS forms may be obtained on the City’s website at:

http://www.cityofchicago.org/city/en/depts/dps/provdrs/comp/svcs/economic_disclosurestatementse ds.html

1.2. **ONLINE EDS WEB LINK**

The web link for the Online EDS is <https://webapps.cityofchicago.org/EDSWeb>

1.3. **ONLINE EDS NUMBER**

Upon completion of the online EDS submission process, the Proposer will be provided an EDS number. Bidders should provide this number here:

EDS Number: _____

1.4. **ONLINE EDS CERTIFICATION OF FILING**

Upon completion of the online submission process, the Proposer will be able to print a hard copy Certificate of Filing. The Proposer should submit the signed Certificate of Filing with its bid. Please insert your Certification of Filing following this page.

A Proposer that does not include a signed Certificate of Filing with its bid must provide it upon the request of the Chief Procurement Officer.

1.5. **PREPARATION CHECKLIST FOR REGISTRATION**

To expedite and ease your registration process, we recommend that you collect the following information prior to registering for an Online EDS user account:

| | |
|--|--|
| | 1. Invitation number, if you were provided an invitation number. |
| | 2. EDS document from previous years, if available. |
| | 3. Email address to correspond with the Online EDS system. |
| | 4. Company Information: |
| | a. Legal Name |
| | b. FEIN/SSN |
| | c. City of Chicago Vendor Number, if available. |

| | |
|--|--|
| | d. Address and phone number information that you would like to appear on your EDS documents. |
| | e. EDS Captain. Check for an EDS Captain in your company - this maybe the person that usually submits EDS for your company, or the first person that registers for your company. |

1.6. PREPARATION CHECKLIST FOR EDS SUBMISSION

To expedite and ease your EDS submission, we recommend that you collect the following information prior to updating your EDS information online.

Items #1 through #7 are needed for both EDS information updates and contract related EDS documents:

- _____ 1. Invitation number, if you were provided with an invitation number.
- _____ 2. Site address that is specific to this EDS.
- _____ 3. Contact that is responsible for this EDS.
- _____ 4. EDS document from previous years, if available.
- _____ 5. Ownership structure, and if applicable, owners' company information:
 - _____ a. % of ownership
 - _____ b. Legal Name
 - _____ c. FEIN/SSN
 - _____ d. City of Chicago Vendor Number, if available.
 - _____ e. Address
- _____ 6. List of directors, officers, titleholders, etc. (if applicable).
- _____ 7. For partnerships/LLC/LLP/Joint ventures, etc.:
 - _____ a. List of controlling parties (if applicable).

Items #8 and #9 are needed ONLY for contract related EDS documents:

- _____ 8. Contract related information (if applicable):
 - _____ a. City of Chicago contract package
 - _____ b. Cover page of City of Chicago bid/solicitation package
 - _____ c. If EDS is related to a mod, then cover page of your current contract with the City.
- _____ 9. List of subcontractors and retained parties:
 - _____ a. Name
 - _____ b. Address
 - _____ c. Fees – Estimated or paid

1.7. EDS FREQUENTLY ASKED QUESTIONS

Q: Where do I file?

A: The web link for the Online EDS is <https://webapps.cityofchicago.org/EDSWeb>

Q: How do I get help?

A: If there is a question mark on a page or next to a field, click on the question mark for help filling out the page or field. You may also consult the User Manual and the Training Videos available on the left menu.

Q: Why do I have to submit an EDS?

A: The Economic Disclosure Statement (EDS) is required of applicants making an application to the City for action requiring City Council, City department or other City agency approval. For example, all bidders seeking a City contract are required to submit an EDS. Through the EDS, applicants make disclosures required by State law and City ordinances and certify compliance with various laws and ordinances. An EDS is also required of certain parties related to the applicant, such as owners and controlling parties.

Q: Who is the Applicant?

A: "Applicant" means any entity or person making an application to the City for action requiring City Council or other City agency approval. The applicant does not include owners and parent companies.

Q: Who is the Disclosing Party?

A: "Disclosing Party" means any entity or person submitting an EDS. This includes owners and parent companies.

Q: What is an entity or legal entity?

A: "Entity" or "Legal Entity" means a legal entity (for example, a corporation, partnership, joint venture, limited liability company or trust).

Q: What is a person for purposes of the EDS?

A: "Person" means a human being.

Q: Who must submit an EDS?

A. An EDS must be submitted in any of the following three circumstances:

| | |
|--------------------------------------|--|
| Applicants: | An Applicant must always file this EDS. If the Applicant is a legal entity, state the full name of that legal entity. If the Applicant is a person acting on his/her own behalf, state his/her name. |
| Entities holding an interest: | Whenever a legal entity has a beneficial interest (E. G. direct or indirect ownership) of more than 7.5% in the Applicant, each such legal entity must file an EDS on its own behalf. |
| Controlling entities: | Whenever a Disclosing Party is a general partnership, limited partnership, limited liability company, limited liability partnership or joint venture that has a general partner, managing member, manager or other entity that can control the day-to-day management of the Disclosing Party, that entity must also file an EDS on its own behalf. Each entity with a beneficial interest of more than 7.5% in the controlling entity must also file an EDS on its own behalf. |

Q: What information is needed to submit an EDS?

A: The information contained in the Preparation Checklist for EDS submission.

Q: I don't have a user ID & password. Can I still submit an Online EDS?

A: No. You must register and create a user ID and password before submitting an Online EDS.

Q: What information is needed to request a user ID & password for Online EDS?

A: The information contained in the Preparation Checklist for Registration is needed to request a login for the Online EDS.

Q: I already have a username and password from another City web site (City Web Portal, Department of Construction and Permits, Department of Consumer Services, etc.). Can I log-in the Online EDS with that account?

A: Usually not. The Online EDS uses a user ID and password system that is shared by the Public Vehicle Advertising and Water Payment web sites. You may use a username and password from those sites by answering "Yes" to "Is this an existing City of Chicago user ID?" when registering. Other usernames and passwords will not be automatically recognized. However, you may choose to create an identical username for the Online EDS if it is not already taken.

Q: I don't have an email address. How do I submit an Online EDS?

A: You cannot get an account to submit an online EDS without an email address. If you need an e-mail address, we suggest that you use a free internet email provider such as www.hotmail.com or www.yahoo.com or www.gmail.com to open an account. The City does not endorse any particular free internet email provider. Public computers are available at all Chicago Public Library branches.

Q: I forgot my user ID. Can I register again?

A: No. If you are the EDS Captain of your organization, please contact the Department of Procurement Services at 312-744-4900. If you are an EDS team member, contact your EDS Captain, who can look up your user ID.

Q: Who is the EDS Captain?

A: The EDS Captain is a person who performs certain administrative functions for an organization which files an EDS. Each organization registered with the Online EDS has at least one EDS Captain. There may be co-captains, who are all equal. EDS Captains approve new users, change contact information for an organization, and de-active accounts of employees who have left the organization. Please see the User Manual for more information.

Q: Why do we need EDS Captains?

A: The Online EDS is designed to be a self-service web application which allows those doing or seeking to do business with the City to perform as many routine functions as possible without City intervention. Because many organizations have multiple staff filing an EDS, the EDS Captain role allows those organizations to self-manage the contact information and users.

Q: Who is the EDS team?

A: The EDS team for an organization is everyone who is registered to file an EDS on behalf of the organization.

Q: I forgot my password. What should I do?

A: To retrieve a temporary password, click the "Forgot your password?" link on the login page. Enter your user ID

that you provided when you registered your account. The system will automatically generate a temporary password and send it to you. When you log-in with your temporary password, you will be asked to create a new password.

Q: How do I complete an Online EDS?

A: Click on “Create New” after logging in. The Online EDS system will walk you through the EDS questions. Please see the User Manual for details.

Q: How do I fill out a Disclosure of Retained Parties?

A: There is no longer a separate Disclosure of Retained Parties filing. After logging in, click on “Create New”. Answer (click) “Contract” to “Is this EDS for a contract or an EDS information update?” Click “Fill out EDS”, and click on the “Retained Parties” tab. When finished, click on “Ready to Submit.”

Q: How do I attach documents?

A: Attachments are discouraged. If at all possible, please provide a concise explanation in the space provided in the online form. Attachments with pages of officers are not acceptable. Names of officers must be typed into the system. If you must provide an attachment for another reason, please send it to your City of Chicago contact (contract administrator or negotiator for procurements) and they will attach it for you. Documents can be sent in PDF (preferred), Word, or paper format.

Q: Who can complete an Economic Disclosure Statement online?

A: Any authorized representative of your business with a user ID and password can complete your EDS online. One person, such as an assistant, can fill in the information and save it, and another person can review and electronically sign the Online EDS.

Q: What are the benefits of filing my Economic Disclosure statement electronically?

A: Filing electronically reduces the chance of filing an incomplete EDS and speeds up the processing of contract awards. A certificate of filing can be printed at the completion of the process and inserted into your bid package. The biggest benefit for those who frequently do business with the City is that after the first EDS, each EDS is much easier to fill out because non-contract specific information is pre-filled from the last submitted EDS.

Q: Will my information be secure?

A: Yes. When making your internet connection to our Web Server, you will connect through a Secure Socket Layer (SSL for short) to the “Online EDS” login page. All information you type will be protected using strong encryption. Within the login page, you will provide us with a user ID, password, and secret question for user authentication, only you will have knowledge of this unique identification information.

Q: I am filing electronically. How do I sign my EDS?

A: Once you have completed the EDS, you will be prompted to enter your password and answer to your secret question. Together, these will serve as your electronic signature. Although you will also print and physically sign an EDS certification of filing as a notice that your EDS was filed, your EDS is complete as a legal document with only the electronic filing.

Q: My address has changed. How can I update my information?

A: You must be an EDS Captain for your organization to update this. Log-in and click on “Vendor Admin, Site Administration.” Select the appropriate site and click edit.

Q: I have more questions. How can I contact the Department of Procurement Services?

A: Please contact the contract administrator or negotiator assigned to your solicitation or contract. You may call

DPS at 312-744-4900 between 8:30 AM and 5:00 PM Central Time.

Q: Can I save a partially complete EDS?

A: Yes. Click "Save". To avoid data loss, we recommend you save your work periodically while filling out your EDS.

Q: Do I have to re-type my information each time I submit an EDS?

A: No. The system will remember non-contract specific information from your last submitted EDS for one year. This information will be filled-in for you in your new EDS. You will have an opportunity to correct it if it has changed since your last filing. When you submit your new EDS, the information is saved and the one-year clock begins running anew.

Q: What are the system requirements to use the Online EDS?

A: The following are minimum requirements to use the Online EDS:

- A PDF viewer such as Adobe Reader is installed and your web browser is configured to display PDFs automatically. You may download and install Adobe Reader free at <http://get.adobe.com/reader/>
- Your web browser is set to permit running of JavaScript.
- Your web browser allows cookies to be set for this site. Please note that while we use cookies in the Online EDS, we do not use them to track personally identifiable information, so your privacy is maintained.
- Your monitor resolution is set to a minimum of 1024 x 768.
- While not required to submit an EDS, if you wish to view the training videos, you must have Adobe Flash Plugin version 9 or higher, speakers, and sound. Please note that very old computers may not be able to run Adobe Flash and will not be able to play the training videos. In that case, we encourage you to seek help using the Online EDS Manuals. You may download and install Adobe Flash Plugin free at <http://get.adobe.com/flashplayer>

The Online EDS has been tested on Internet Explorer 6.0 and 7.0 and Firefox 2.0 and 3.0 on Windows XP and Mac OS X. Although it should work on other browsers and operating systems, the City of Chicago cannot guarantee compatibility.

**CONTRACTOR'S AFFIDAVIT REGARDING REMOVAL OF ALL WASTE MATERIALS
AND IDENTIFICATION OF ALL LEGAL DUMP SITES**

Contractor to show here the name and location of the ultimate disposal site he/she is proposing to use for the subject project:

SPECIFY THE TYPE OF MATERIALS TO BE DISPOSED OF:

LEGAL NAME OF LANDFILL/DISPOSAL SITE:

(The Contractor must provide to the Commissioner or his/her designated representative with copies of all dump tickets, manifests, etc.)

LOCATION ADDRESS: _____

PHONE: _____

CONTACT PERSON: _____

Disposal site submitted shall be of sufficient capacity as to insure acceptance of the volume of Construction and/or Demolition Debris received for the period of this Contract. These disposal sites must meet all zoning and other requirements that may be necessary.

If requested by the Chief Procurement Officer, the Contractor shall submit copies of all contractual agreements, sanitary landfill permits and/or licenses for these disposal site(s) proposed by the Contractor.

(Revised 6/30/2000)

SPECIAL CONDITIONS REGARDING MINORITY OWNED BUSINESS ENTERPRISE COMMITMENT AND WOMEN OWNED BUSINESS ENTERPRISE COMMITMENT IN CONSTRUCTION CONTRACTS

I. Policy and Terms

As set forth in 2-92-650 *et seq.* of the Municipal Code of Chicago (MCC) it is the policy of the City of Chicago that businesses certified as Minority Owned Business Enterprises (MBEs) and Women Owned Business Enterprises (WBEs) in accordance with Section 2-92-420 *et seq.* of the MCC and Regulations Governing Certification of Minority and Women-owned Businesses, and all other Regulations promulgated under the aforementioned sections of the Municipal Code, as well as MBEs and WBEs certified by Cook County, Illinois, shall have full and fair opportunities to participate fully in the performance of this contract. Therefore, bidders shall not discriminate against any person or business on the basis of race, color, national origin, or sex, and shall take affirmative actions to ensure that MBEs and WBEs shall have full and fair opportunities to compete for and perform subcontracts for supplies or services.

Failure to carry out the commitments and policies set forth herein shall constitute a material breach of the contract and may result in the termination of the contract or such remedy as the City of Chicago deems appropriate.

Under the City's MBE/WBE Construction Program as set forth in MCC 2-92-650 *et seq.*, the program-wide aspirational goals are 26% Minority Owned Business Enterprise participation and 6% Women Owned Business Enterprise participation. The City has set goals of 26% and 6% on all contracts in line with its overall aspirational goals, unless otherwise specified herein, and is requiring that bidders make a good faith effort in meeting or exceeding these goals.

Pursuant to 2-92-535, the prime contractor may be awarded an additional 0.333 percent credit, up to a maximum of a total of 5 percent additional credit, for every 1 percent of the value of a contract self-performed by M.B.E.s or W.B.E.s, or combination thereof, that have entered into a mentor agreement with the contractor. This 5% may be applied to the contract specific goals, or it may be in addition to the contract specific goals.

As provided in Section 2-92-720(e), Diversity Credit Program credits awarded by the City's affirmative action advisory board may also be applied to the contract specific goals.

Contract Specific Goals and Bids

A bid may be rejected as non-responsive if it fails to submit one or more of the following with its bid demonstrating its good faith efforts to meet the Contract Specific Goals by reaching out to MBEs and WBEs to perform work on the contract:

- A. An MBE/WBE compliance plan demonstrating how the bidder plans to meet the Contract Specific Goals (Schedule D); and/or
- B. Documentation of Good Faith Efforts (Schedule H).

If a bidder's compliance plan falls short of the Contract Specific Goals, the bidder must include either a Schedule H demonstrating that it has made Good Faith Efforts to find MBE and WBE firms to participate or a request for a reduction or waiver of the goals.

Accordingly, the bidder or contractor commits to make good faith efforts to expend at least the following percentages of the total contract price (inclusive of any and all modifications and amendments), if awarded the contract:

MBE Contract Specific Goal: 28.36%
WBE Contract Specific Goal: 6.26%

This Contract Specific Goal provision shall supersede any conflicting language or provisions that may be contained in this document.

For purposes of evaluating the bidder's responsiveness, the MBE and WBE Contract Specific Goals shall be percentages of the bidder's total base bid. However, the MBE and WBE Contract Specific Goals shall apply to the total value of this contract, including all amendments and modifications.

Pursuant to 2-92-535, the prime contractor may be awarded an additional 0.333 percent credit, up to a maximum of a total of 5 percent additional credit, for every 1 percent of the value of a contract self-performed by M.B.E.s or W.B.E.s, or combination thereof, that have entered into a mentor agreement with the contractor. This 5% may be applied to the contract specific goals, or it may be in addition to the contract specific goals.

Contract Specific Goals and Contract Modifications

1. The MBE and WBE Contract Specific Goals established at the time of contract bid shall also apply to any modifications to the Contract after award. That is, any additional work and/or money added to the Contract must also adhere to these Special Conditions requiring Contractor to (sub)contract with MBEs and WBEs to meet the Contract Specific Goals.
 - a. Contractor must assist the Construction Manager or user Department in preparing its "proposed contract modification" by evaluating the subject matter of the modification and determining whether there are opportunities for MBE or WBE participation and at what rates.
 - b. Contractor must produce a statement listing the MBEs/WBEs that will be utilized on any contract modification. The statement must include the percentage of utilization of the firms. If no MBE/WBE participation is available, an explanation of good faith efforts to obtain participation must be included.
2. The Chief Procurement Officer shall review each proposed contract modification and amendment that by itself or aggregated with previous modification/amendment requests, increases the contract value by ten percent (10%) of the initial award, or \$50,000, whichever is less, for opportunities to increase the participation of MBEs or WBEs already involved in the Contract.

II. Definitions

"Area of Specialty" means the description of a MBE's or WBE's activity that has been determined by the Chief Procurement Officer to be most reflective of the firm's claimed specialty or expertise. Each MBE and WBE letter of certification contains a description of the firm's Area of Specialty. Credit toward the Contract Specific Goals shall be limited to the participation of firms performing within their Area of Specialty. The Department of Procurement Services does not make any representation concerning the ability of any MBE or WBE to perform work within its Area of Specialty. It is the responsibility of the bidder or contractor to determine the capability and capacity of MBEs and WBEs to perform the work proposed.

"B.E.P.D." means an entity certified as a Business enterprise owned or operated by people with disabilities as defined in MCC 2-92-586.

"Broker" means a person or entity that fills orders by purchasing or receiving supplies from a third party supplier rather than out of its own existing inventory and provides no commercially useful function other than acting as a conduit between his or her supplier and his or her customer.

"Chief Procurement Officer" or "CPO" means the chief procurement officer of the City of Chicago or his or her designee.

"Commercially Useful Function" means responsibility for the execution of a distinct element of the work of the contract, which is carried out by actually performing, managing, and supervising the work involved, evidencing the responsibilities and risks of a business owner such as negotiating the terms of (sub)contracts, taking on a financial risk commensurate with the contract or its subcontract, responsibility for acquiring the appropriate lines of credit and/or loans, or fulfilling responsibilities as a joint venture partner as described in the joint venture agreement.

"Construction Contract" means a contract, purchase order or agreement (other than lease of real property) for the construction, repair, or improvement of any building, bridge, roadway, sidewalk, alley, railroad or other structure or infrastructure, awarded by any officer or agency of the City, other than the City Council, and whose cost is to be paid from City funds.

"Contract Specific Goals" means the subcontracting goals for MBE and WBE participation established for a particular contract.

"Contractor" means any person or business entity that has entered into a construction contract with the City, and includes all partners, affiliates and joint ventures of such person or entity.

"Direct Participation" the value of payments made to MBE or WBE firms for work that is done in their Area of Specialty directly related to the performance of the subject matter of the Construction Contract will count as Direct Participation toward the Contract Specific Goals.

"Directory" means the Directory of Minority Business MBEs and WBEs maintained and published by the Chief Procurement Officer. The Directory identifies firms that have been certified as MBEs and WBEs, and includes the date of their last certifications and the areas of specialty in which they have been certified. Bidders and contractors are responsible for verifying the current certification status of all proposed MBEs and WBEs.

"Executive Director" means the executive director of the Office of Compliance or his or her designee.

"Good Faith Efforts" means actions undertaken by a bidder or contractor to achieve a Contract Specific Goal that, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program's requirements.

"Joint venture" means an association of a MBE or WBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which each joint venture partner contributes property, capital, efforts, skills and knowledge, and in which the MBE or WBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

Mentor-Protégé Agreement means an agreement between a prime and MBE or WBE subcontractor pursuant to 2-92-535, that is approved by the City of Chicago and complies with all requirements of 2-92-535 and any rules and regulations promulgated by the Chief Procurement Officer.

"Minority Business Enterprise" or "MBE" means a firm awarded certification as a minority owned and controlled business in accordance with City Ordinances and Regulations as well as a firm awarded certification as a minority owned and controlled business by Cook County, Illinois.

"Supplier" or "Distributor" refers to a company that owns, operates, or maintains a store, warehouse or other establishment in which materials, supplies, articles or equipment are bought, kept in stock and regularly sold or leased to the public in the usual course of business. A regular distributor or supplier is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for performance of the Contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a regular distributor the firm must engage in, as its principal business and in its own name, the purchase and sale of the products in question. A regular distributor in such bulk items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock if it owns or operates distribution equipment.

"Women Business Enterprise" or "WBE" means a firm awarded certification as a women owned and controlled business in accordance with City Ordinances and Regulations as well as a firm awarded certification as a women owned business by Cook County, Illinois.

III. Joint Ventures

The formation of joint ventures to provide MBEs and WBEs with capacity and experience at the prime contracting level, and thereby meet Contract Specific Goals (in whole or in part) is encouraged. A joint venture may consist of any combination of MBEs, WBEs, and non-certified firms as long as one member is an MBE or WBE.

- A. The joint venture may be eligible for credit towards the Contract Specific Goals only if:
1. The MBE or WBE joint venture partner's share in the capital contribution, control, management, risks and profits of the joint venture is equal to its ownership interest;
 2. The MBE or WBE joint venture partner is responsible for a distinct, clearly defined portion of the requirements of the contract for which it is at risk;
 3. Each joint venture partner executes the bid to the City; and

4. The joint venture partners have entered into a written agreement specifying the terms and conditions of the relationship between the partners and their relationship and responsibilities to the contract, and all such terms and conditions are in accordance with the conditions set forth in Items 1, 2, and 3 above in this Paragraph A.

B. The Chief Procurement Officer shall evaluate the proposed joint venture agreement, the Schedule B submitted on behalf of the proposed joint venture, and all related documents to determine whether these requirements have been satisfied. The Chief Procurement Officer shall also consider the record of the joint venture partners on other City of Chicago contracts. The decision of the Chief Procurement Officer regarding the eligibility of the joint venture for credit towards meeting the Contract Specific Goals, and the portion of those goals met by the joint venture, shall be final.

The joint venture may receive MBE or WBE credit for work performed by the MBE or WBE joint venture partner(s) equal to the value of work performed by the MBE or WBE with its own forces for a distinct, clearly defined portion of the work.

Additionally, if employees of the joint venture entity itself (as opposed to employees of the MBE or WBE partner) perform the work then the value of the work may be counted toward the Contract Specific Goals at a rate equal to the MBE or WBE firm's percentage of participation in the joint venture as described in Schedule B.

The Chief Procurement Officer may also count the dollar value of work subcontracted to other MBEs and WBEs. Work performed by the forces of a non-certified joint venture partner shall not be counted toward the Contract Specific Goals.

C. Schedule B: MBE/WBE Affidavit of Joint Venture

Where the bidder's Compliance Plan includes the participation of any MBE or WBE as a joint venture partner, the bidder must submit with its bid a Schedule B and the proposed joint venture agreement. These documents must both clearly evidence that the MBE or WBE joint venture partner(s) will be responsible for a clearly defined portion of the work to be performed, and that the MBE's or WBE's responsibilities and risks are proportionate to its ownership percentage. The proposed joint venture agreement must include specific details related to:

1. The parties' contributions of capital, personnel, and equipment and share of the costs of insurance and bonding;
2. Work items to be performed by the MBE's or WBE's own forces and/or work to be performed by employees of the newly formed joint venture entity;
3. Work items to be performed under the supervision of the MBE or WBE joint venture partner; and
4. The MBE's or WBE's commitment of management, supervisory, and operative personnel to the performance of the contract.

NOTE: Vague, general descriptions of the responsibilities of the MBE or WBE joint venture partner do not provide any basis for awarding credit. For example, descriptions such as "participate in the budgeting process," "assist with hiring," or "work with managers to improve customer service" do not identify distinct, clearly defined portions of the work. Roles assigned should require activities that are performed on a regular, recurring basis rather than as needed. The roles must also be pertinent to the nature of the business for which credit is being sought. For instance, if the scope of work required by the City entails the delivery of goods or services to various sites in the City, stating that the MBE or WBE joint venture partner will be responsible for the performance of all routine maintenance and all repairs required to the vehicles used to deliver such goods or services is pertinent to the nature of the business for which credit is being sought.

IV. **Counting MBE and WBE Participation Towards the Contract Specific Goals**

Refer to this section when preparing the MBE/WBE compliance plan and completing Schedule D-1 for guidance on what value of the participation by MBEs and WBEs will be counted toward the stated Contract Specific Goals. The "Percent Amount of Participation" depends on whether and with whom a MBE or WBE subcontracts out any portion of its work and other factors.

Firms that are certified as both MBE and WBE may only be listed on a bidder's compliance plan as either a MBE or a WBE to demonstrate compliance with the Contract Specific Goals. For example, a firm certified as both a MBE and a WBE may only listed on the bidder's compliance plan under one of the categories, but not both. Additionally, a firm that is certified as both a MBE and a WBE could not self-perform 100% of a contract, it would have to show good faith efforts to meet the Contract Specific Goals by including in its compliance plan work to be performed by another MBE or WBE firm, depending on which certification that dual-certified firm chooses to count itself as.

- A. Only expenditures to firms that perform a **Commercially Useful Function** as defined above may count toward the Contract Specific Goals.
 - 1. The CPO will determine whether a firm is performing a commercially useful function by evaluating the amount of work subcontracted, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the credit claimed for its performance of the work, industry practices, and other relevant factors.
 - 2. A MBE or WBE does not perform a commercially useful function if its participation is only required to receive payments in order to obtain the appearance of MBE or WBE participation. The CPO may examine similar commercial transactions, particularly those in which MBEs or WBEs do not participate, to determine whether non MBE and non WBE firms perform the same function in the marketplace to make a determination.
- B. Only the value of the dollars paid to the MBE or WBE firm for work that it performs in its **Area of Specialty** in which it is certified counts toward the Contract Specific Goals.

Only payments made to MBE and WBE firms that meet BOTH the Commercially Useful Function and Area of Specialty requirements above will be counted toward the Contract Specific Goals.

- C. If the MBE or WBE performs the work itself:
 - 1. 100% of the value of work actually performed by the MBE's or WBE's own forces shall be counted toward the Contract Specific Goals, including the cost of supplies purchased or equipment leased by the MBE or WBE from third parties or second tier subcontractors in order to perform its (sub)contract with its own forces. 0% of the value of work at the project site that a MBE or WBE subcontracts to a non-certified firm counts toward the Contract Specific Goals
- D. If the MBE or WBE is a manufacturer:
 - 1. 100% of expenditures to a MBE or WBE manufacturer for items needed for the Contract shall be counted toward the Contract Specific Goals. A manufacturer is a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the bidder or contractor.
- E. If the MBE or WBE is a distributor or supplier:
 - 1. 60% of expenditures for materials and supplies purchased from a MBE or WBE that is certified as a regular dealer or supplier shall be counted toward the Contract Specific Goals.
- F. If the MBE or WBE is a broker:
 - 1. 0% of expenditures paid to brokers will be counted toward the Contract Specific Goals.
 - 2. As defined above, Brokers provide no commercially useful function.
- G. If the MBE or WBE is a member of the joint venture contractor/bidder:
 - 1. A joint venture may count the portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the MBE or WBE performs with its own forces toward the Contract Specific Goals.
 - i. OR if employees of this distinct joint venture entity perform the work then the value of the work may be counted toward the Contract Specific Goals at a rate equal to the MBE or WBE firm's percentage of participation in the joint venture as described in Schedule B.
 - 2. Note: a joint venture may also count the dollar value of work subcontracted to other MBEs and WBEs, however, work subcontracted out to non-certified firms may not be counted.
- H. If the MBE or WBE subcontracts out any of its work:
 - 1. 100% of the value of the work subcontracted to other MBEs or WBEs performing work in its Area of Specialty may be counted toward the Contract Specific Goals.

2. 0% of the value of work that a MBE or WBE subcontracts to a non-certified firm counts toward the Contract Specific Goals (except for the cost of supplies purchased or equipment leased by the MBE or WBE from third parties or second tier subcontractors in order to perform its (sub)contract with its own forces as allowed by C.1. above).
3. The fees or commissions charged for providing a *bona fide* service, such as professional, technical, consulting or managerial services or for providing bonds or insurance or the procurement of essential personnel, facilities, equipment, materials or supplies required for performance of the Contract, may be counted toward the Contract Specific Goals, provided that the fee or commission is determined by the Chief Procurement Officer to be reasonable and not excessive as compared with fees customarily allowed for similar services.
4. The fees charged for delivery of materials and supplies required on a job site (but not the cost of the materials and supplies themselves) when the hauler, trucker, or delivery service is not also the manufacturer of or a regular dealer in the materials and supplies, provided that the fee is determined by the Chief Procurement Officer to be reasonable and not excessive as compared with fees customarily allowed for similar services.
5. The fees or commissions charged for providing any bonds or insurance, but not the cost of the premium itself, specifically required for the performance of the Contract, provided that the fee or commission is determined by the Chief Procurement Officer to be reasonable and not excessive as compared with fees customarily allowed for similar services.

V. Procedure to Determine Bid Compliance

The following Schedules and requirements govern the bidder's or contractor's MBE/WBE proposal:

A. Schedule B: MBE/WBE Affidavit of Joint Venture

1. Where the bidder's Compliance Plan includes the participation of any MBE or WBE as a joint venture partner, the bidder must submit with its bid a Schedule B and the proposed joint venture agreement. See Section III above for detailed requirements.

B. Schedule C: MBE/WBE Letter of Intent to Perform as a Subcontractor or Supplier

The bidder must submit the appropriate Schedule C with the bid for each MBE and WBE included on the Schedule D. The City encourages subcontractors to utilize the electronic fillable format Schedule C, which is available at the Department of Procurement Services website, <http://cityofchicago.org/forms>. Suppliers must submit the Schedule C for Suppliers, first tier subcontractors must submit a Schedule C for Subcontractors to the Prime Contractor and second or lower tier subcontractors must submit a Schedule C for second tier Subcontractors. Each Schedule C must accurately detail the work to be performed by the MBE or WBE and the agreed upon rates/prices. Each Schedule C must also include a separate sheet as an attachment on which the MBE or WBE fully describes its proposed scope of work, including a description of the commercially useful function being performed by the MBE or WBE in its Area of Specialty. If a facsimile copy of the Schedule C has been submitted with the bid, an executed original Schedule C must be submitted by the bidder for each MBE and WBE included on the Schedule D within five (5) business days after the date of the bid opening.

C. Schedule D: Compliance Plan Regarding MBE and WBE Utilization

The bidder must submit a Schedule D with the bid. The City encourages bidders to utilize the electronic fillable format Schedule D, which is available at the Department of Procurement Services website, <http://cityofchicago.org/forms>. An approved Compliance Plan is required before a contract may commence.

The Compliance Plan must commit to the utilization of each listed MBE and WBE. The bidder is responsible for calculating the dollar equivalent of the MBE and WBE Contract Specific Goals as percentages of the total base bid. All Compliance Plan commitments must conform to the Schedule Cs.

A bidder or contractor may not modify its Compliance Plan after bid opening except as directed by the Department of Procurement Services to correct minor errors or omissions. Bidders shall not be permitted to add MBEs or WBEs after bid opening to meet the Contract Specific Goals, however, contractors are encouraged to add additional MBE/WBE vendors to their approved compliance plan during the performance of the contract when additional opportunities for participation are identified. Except in cases where substantial, documented justification is provided, the bidder or contractor shall not reduce the dollar commitment made to

any MBE or WBE in order to achieve conformity between the Schedule Cs and Schedule D. All terms and conditions for MBE and WBE participation on the contract must be negotiated and agreed to between the bidder or contractor and the MBE or WBE prior to the submission of the Compliance Plan. If a proposed MBE or WBE ceases to be available after submission of the Compliance Plan, the bidder or contractor must comply with the provisions in Section VII.

D. Letters of Certification

A copy of each proposed MBE's and WBE's Letter of Certification from the City of Chicago or Cook County, Illinois, must be submitted with the bid.

A Letters of Certification includes a statement of the MBE's or WBE's area(s) of specialty. The MBE's or WBE's scope of work as detailed in the Schedule C must conform to its area(s) of specialty. Where a MBE or WBE is proposed to perform work not covered by its Letter of Certification, the MBE or WBE must request the addition of a new area at least 30 calendar days prior to the bid opening.

E. Schedule F: Report of Subcontractor Solicitations

A Schedule F must be submitted with the bid, documenting all subcontractors and suppliers solicited for participation on the contract by the bidder. Failure to submit the Schedule F may render the bid non-responsive.

F. Schedule H: Documentation of Good Faith Efforts

1. If a bidder determines that it is unable to meet the Contract Specific Goals, it must document its good faith efforts to do so, including the submission of Attachment C, Log of Contacts.
2. If the bidder's Compliance Plan demonstrates that it has not met the Contract Specific Goals in full or in part, the bidder must submit its Schedule H no later than three business days after notification by the Chief Procurement Officer of its status as the apparent lowest bidder. Failure to submit a complete Schedule H will cause the bid to be rejected as non-responsive.
3. Documentation must include but is not necessarily limited to:
 - a. A detailed statement of efforts to identify and select portions of work identified in the bid solicitation for subcontracting to MBEs and WBEs;
 - b. A listing of all MBEs and WBEs contacted for the bid solicitation that includes:
 - i. Names, addresses, emails and telephone numbers of firms solicited;
 - ii. Date and time of contact;
 - iii. Person contacted;
 - iv. Method of contact (letter, telephone call, facsimile, electronic mail, etc.).
 - c. Evidence of contact, including:
 - i. Project identification and location;
 - ii. Classification/commodity of work items for which quotations were sought;
 - iii. Date, item, and location for acceptance of subcontractor bids;
 - iv. Detailed statements summarizing direct negotiations with appropriate MBEs and WBEs for specific portions of the work and indicating why agreements were not reached.
 - v. Bids received from all subcontractors.
 - d. Documentation of bidder or contractor contacts with at least one of the minority and women assistance associations on Attachment A.

G. Agreements between a bidder or contractor and a MBE or WBE in which the MBE or WBE promises not to provide subcontracting quotations to other bidders or contractors are prohibited.

- H. Prior to award, the bidder agrees to promptly cooperate with the Department of Procurement Services in submitting to interviews, allowing entry to places of business, providing further documentation, or soliciting the cooperation of a proposed MBE or WBE. Failure to cooperate may render the bid non-responsive.
- I. If the City determines that the Compliance Plan contains minor errors or omissions, the bidder or contractor must submit a revised Compliance Plan within five (5) business days after notification by the City that remedies the minor errors or omissions. Failure to correct all minor errors or omissions may result in the determination that a bid is non-responsive.
- J. No later than three (3) business days after receipt of the executed contract, the contractor must execute a complete subcontract agreement or purchase order with each MBE and WBE listed in the Compliance Plan. No later than eight (8) business days after receipt of the executed contract, the contractor must provide copies of each signed subcontract, purchase order, or other agreement to the Department of Procurement Services.
- K. Any applications for City approval of a Mentor Protégé agreement must be included with the bid. If the application is not approved, the bidder must show that it has made good faith efforts to meet the contract specific goals.

VI. Demonstration of Good Faith Efforts

- A. In evaluating the Schedule H to determine whether the bidder or contractor has made good faith efforts, the performance of other bidders or contractors in meeting the goals may be considered.
- B. The Chief Procurement Officer shall consider, at a minimum, the bidder's efforts to:
 - 1. Solicit through reasonable and available means at least 50% (or at least five when there are more than eleven certified firms in the commodity area) of MBEs and WBEs certified in the anticipated scopes of subcontracting of the contract, as documented by the Schedule H. The bidder or contractor must solicit MBEs and WBEs within seven (7) days prior to the date bids are due. The bidder or contractor must take appropriate steps to follow up initial solicitations with interested MBEs or WBEs.
 - 2. Advertise the contract opportunities in media and other venues oriented toward MBEs and WBEs.
 - 3. Provide interested MBEs or WBEs with adequate information about the plans, specifications, and requirements of the contract, including addenda, in a timely manner to assist them in responding to the solicitation.
 - 4. Negotiate in good faith with interested MBEs or WBEs that have submitted bids. That there may be some additional costs involved in soliciting and using MBEs and WBEs is not a sufficient reason for a bidder's failure to meet the Contract Specific Goals, as long as such costs are reasonable.
 - 5. Not reject MBEs or WBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The MBE's or WBE's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations are not legitimate causes for rejecting or not soliciting bids to meet the Contract Specific Goals.
 - 6. Make a portion of the work available to MBE or WBE subcontractors and suppliers and selecting those portions of the work or material consistent with the available MBE or WBE subcontractors and suppliers, so as to facilitate meeting the Contract Specific Goals.
 - 7. Make good faith efforts, despite the ability or desire of a bidder or contractor to perform the work of a contract with its own organization. A bidder or contractor who desires to self-perform the work of a contract must demonstrate good faith efforts unless the Contract Specific Goals have been met.
 - 8. Select portions of the work to be performed by MBEs or WBEs in order to increase the likelihood that the goals will be met. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate MBE or WBE participation, even when the bidder or contractor might otherwise prefer to perform these work items with its own forces.

9. Make efforts to assist interested MBEs or WBEs in obtaining bonding, lines of credit, or insurance as required by the City or bidder or contractor.
 10. Make efforts to assist interested MBEs or WBEs in obtaining necessary equipment, supplies, materials, or related assistance or services; and
 11. Effectively use the services of the City; minority or women community organizations; minority or women assistance groups; local, state, and federal minority or women business assistance offices; and other organizations to provide assistance in the recruitment and placement of MBEs or WBEs.
- C. If the bidder disagrees with the City's determination that it did not make good faith efforts, the bidder may file a protest pursuant to the Department of Procurement Services Solicitation and Contracting Process Protest Procedures within 10 business days of a final adverse decision by the Chief Procurement Officer.

VII. Changes to Compliance Plan

- A. No changes to the Compliance Plan or contractual MBE and WBE commitments or substitution of MBE or WBE subcontractors may be made without the prior written approval of the Chief Procurement Officer. Unauthorized changes or substitutions, including performing the work designated for a subcontractor with the contractor's own forces, shall be a violation of these Special Conditions and a breach of the contract with the City, and may cause termination of the executed Contract for breach, and/or subject the bidder or contractor to contract remedies or other sanctions. The facts supporting the request for changes must not have been known nor reasonably could have been known by the parties prior to entering into the subcontract. Bid shopping is prohibited. The bidder or contractor must negotiate with the subcontractor to resolve the problem. If requested by either party, the Department of Procurement Services shall facilitate such a meeting. Where there has been a mistake or disagreement about the scope of work, the MBE or WBE can be substituted only where an agreement cannot be reached for a reasonable price for the correct scope of work.
- B. Substitutions of a MBE or WBE subcontractor shall be permitted only on the following basis:
1. Unavailability after receipt of reasonable notice to proceed;
 2. Failure of performance;
 3. Financial incapacity;
 4. Refusal by the subcontractor to honor the bid or proposal price or scope;
 5. Mistake of fact or law about the elements of the scope of work of a solicitation where a reasonable price cannot be agreed;
 6. Failure of the subcontractor to meet insurance, licensing or bonding requirements;
 7. The subcontractor's withdrawal of its bid or proposal; or
 8. De-certification of the subcontractor as a MBE or WBE. (Graduation from the MBE/WBE program does not constitute de-certification.
 9. Termination of a Mentor Protégé Agreement.
- C. If it becomes necessary to substitute a MBE or WBE or otherwise change the Compliance Plan, the procedure will be as follows:
1. The bidder or contractor must notify the Chief Procurement Officer in writing of the request to substitute a MBE or WBE or otherwise change the Compliance Plan. The request must state specific reasons for the substitution or change. A letter from the MBE or WBE to be substituted or affected by the change stating that it cannot perform on the contract or that it agrees with the change in its scope of work must be submitted with the request.
 2. The City will approve or deny a request for substitution or other change within 15 business days of receipt of the request.
 3. Where the bidder or contractor has established the basis for the substitution to the satisfaction of the Chief Procurement Officer, it must make good faith efforts to meet the Contract Specific Goal by substituting a MBE or WBE subcontractor. Documentation of a replacement MBE or WBE, or of good faith efforts, must meet the requirements in sections V and VI. If the MBE or WBE Contract

Specific Goal cannot be reached and good faith efforts have been made, as determined by the Chief Procurement Officer, the bidder or contractor may substitute with a non-MBE or non-WBE.

4. If a bidder or contractor plans to hire a subcontractor for any scope of work that was not previously disclosed in the Compliance Plan, the bidder or contractor must obtain the approval of the Chief Procurement Officer to modify the Compliance Plan and must make good faith efforts to ensure that MBEs or WBEs have a fair opportunity to bid on the new scope of work.
 5. A new subcontract must be executed and submitted to the Chief Procurement Officer within five business days of the bidder's or contractor's receipt of City approval for the substitution or other change.
- D. The City shall not be required to approve extra payment for escalated costs incurred by the contractor when a substitution of subcontractors becomes necessary to comply with MBE/WBE contract requirements.

VIII. Reporting and Record Keeping

- A. During the term of the contract, the contractor and its non-certified subcontractors must submit partial and final waivers of lien from MBE and WBE subcontractors that show the accurate cumulative dollar amount of subcontractor payments made to date. Upon acceptance of the Final Quantities from the City of Chicago, FINAL certified waivers of lien from the MBE and WBE subcontractors must be attached to the contractor's acceptance letter and forwarded to the Department of Procurement Services, Attention: Chief Procurement Officer.
- B. The contractor will be responsible for reporting payments to all subcontractors on a monthly basis in the form of an electronic audit. Upon the first payment issued by the City of Chicago to the contractor for services performed, on the first day of each month and every month thereafter, email and/or fax audit notifications will be sent out to the contractor with instructions to report payments that have been made in the prior month to each MBE and WBE. The reporting of payments to all subcontractors must be entered into the Certification and Compliance Monitoring System (C2), or whatever reporting system is currently in place, on or before the fifteenth (15th) day of each month.

Once the prime contractor has reported payments made to each MBE and WBE, including zero dollar amount payments, the MBE and WBE will receive an email and/or fax notification requesting them to log into the system and confirm payments received. All monthly confirmations must be reported on or before the 20th day of each month. Contractor and subcontractor reporting to the C2 system must be completed by the 25th of each month or payments may be withheld.

All subcontract agreements between the contractor and MBE/WBE firms or any first tier non-certified firm and lower tier MBE/WBE firms must contain language requiring the MBE/WBE to respond to email and/or fax notifications from the City of Chicago requiring them to report payments received for the prime or the non-certified firm.

Access to the Certification and Compliance Monitoring System (C2), which is a web based reporting system, can be found at: <http://chicago.mwdb.com>

- C. The Chief Procurement Officer or any party designated by the, Chief Procurement Officer shall have access to the contractor's books and records, including without limitation payroll records, tax returns and records and books of account, to determine the contractor's compliance with its commitment to MBE and WBE participation and the status of any MBE or WBE performing any portion of the contract. This provision shall be in addition to, and not a substitute for, any other provision allowing inspection of the contractor's records by any officer or official of the City for any purpose.
- D. The contractor shall maintain records of all relevant data with respect to the utilization of MBEs and WBEs, retaining these records for a period of at least five years after final acceptance of the work. Full access to these records shall be granted to City, federal or state authorities or other authorized persons.

IX. Non-Compliance

- A. Without limitation, the following shall constitute a material breach of this contract and entitle the City to declare a default, terminate the contract, and exercise those remedies provided for in the contract at law or in equity: (1) failure to demonstrate good faith efforts; and (2) disqualification as a MBE or WBE of the contractor or any joint venture partner, subcontractor or supplier if its status as an MBE or WBE was a factor in the award of the contract and such status was misrepresented by the contractor.
- B. Payments due to the contractor may be withheld until corrective action is taken.
- C. Pursuant to 2-92-740, remedies or sanctions may include disqualification from contracting or subcontracting on additional City contracts for up to three years, and the amount of the discrepancy between the amount of the commitment in the Compliance Plan, as such amount may be amended through change orders or otherwise over the term of the contract, and the amount paid to MBEs or WBEs. The consequences provided herein shall be in addition to any other criminal or civil liability to which such entities may be subject.
- D. The contractor shall have the right to protest the final determination of non-compliance and the imposition of any penalty by the Chief Procurement Officer pursuant to 2-92-740 of the Municipal Code of the City of Chicago, within 15 business days of the final determination.

X. Arbitration

If the City determines that a contractor has not made good faith efforts to fulfill its Compliance Plan, the affected MBE or WBE may recover damages from the contractor.

Disputes between the contractor and the MBE or WBE shall be resolved by binding arbitration before the American Arbitration Association (AAA), with reasonable expenses, including attorney's fees and arbitrator's fees, being recoverable by a prevailing MBE or WBE. Participation in such arbitration is a material provision of the Construction Contract to which these Special Conditions are an Exhibit. This provision is intended for the benefit of any MBE or WBE affected by the contractor's failure to fulfill its Compliance Plan and grants such entity specific third party beneficiary rights. These rights are non-waivable and take precedence over any agreement to the contrary, including but not limited to those contained in a subcontract, suborder, or communicated orally between a contractor and a MBE or WBE. Failure by the Contractor to participate in any such arbitration is a material breach of the Construction Contract.

A MBE or WBE seeking arbitration shall serve written notice upon the contractor and file a demand for arbitration with the AAA in Chicago, IL. The dispute shall be arbitrated in accordance with the Commercial Arbitration Rules of the AAA. All arbitration fees are to be paid *pro rata* by the parties.

The MBE or WBE must copy the City on the Demand for Arbitration within 10 business days after filing with the AAA. The MBE or WBE must copy the City on the arbitrator's decision within 10 business days of receipt of the decision. Judgment upon the arbitrator's award may be entered in any court of competent jurisdiction.

XI. Equal Employment Opportunity

Compliance with MBE and WBE requirements will not diminish or supplant equal employment opportunity and civil rights provisions as required by law related to bidder or contractor and subcontractor obligations.

Attachment A – Assist Agency List


**CITY OF CHICAGO
ASSIST AGENCY LIST**

Assist Agencies are comprised of not-for-profit agencies and/or chamber of commerce agencies that represent the interest of small, minority and/or women owned businesses.

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| <p>51st Street Business Association * 220 E. 51st Street Chicago, IL 60615 Phone: 773-285-3401 Fax: 773-285-3407 Email: the51streetbusinessassociation@yahoo.com Web: www.51stStreetChicago.com Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>African American Contractors Association - AACA P.O. Box #19670 Chicago, IL 60619 Phone: 312-915-5960 Email: aacanatlassoc@gmail.com Web: www.aacanatl.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |
| <p>Angel of God Resource Center, Inc. 14527 S. Halsted Chicago, IL 60827 Phone: 708-392-9323 Fax: 708-880-0121 Email: asmith5283@yahoo.com; aogrc@angelofgodresourcecenter.org Web: www.angelofgodresourcecenter.org Maintains list of certified firms: No Provides training for businesses: Yes</p> | <p>Association of Asian Construction Enterprises * 5677 W. Howard Niles, IL 60714 Phone: 847-673-7377 Fax: 847-673-2358 Email: nakmancorp@aol.com Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |
| <p>Austin African American Business Networking Assoc. 5820 W. Chicago Ave., Chicago, IL 60651 Phone: 773-626-4497 Email: aaabna@yahoo.com Web: www.aaabna.org Maintains list of certified firms: No Provides training for businesses: Yes</p> | <p>Black Contractors United * 12000 S. Marshfield Ave. Calumet Park, IL 60827 Phone: 708-389-5730 Fax: 708-389-5735 Email: bcnewera@att.net Web: www.blackcontractorsunited.com Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |
| <p>Business Leadership Council * 230 W. Monroe Street, Ste 2650 Chicago, IL 60606 Phone: 312-628-7844 Fax: 312-628-7843 Email: Karen.r@businessleadershipcouncil.org Web: www.businessleadershipcouncil.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>LGBT Chamber of Commerce of Illinois * 3179 N. Clark St., 2nd Floor Chicago, IL 60657 Phone: 773-303-0167 Fax: 773-303-0168 Email: jholston@lgbtcc.com Web: www.lgbtcc.com Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |
| <p>Chatham Business Association Small Business Dev. * 800 E. 78th Street Chicago, IL 60619 Phone: melindakelly@cbaworks.org Fax: 773-855-8905 Email: melindakelly@cbaworks.org Web: www.cbaworks.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>Chicago Minority Supplier Development Council Inc. * 105 W. Adams, Suite 2300 Chicago, IL 60603-6233 Phone: 312-755-2550 Fax: 312-755-8890 Email: pbarreda@chicagomsdc.org Web: www.chicagomsdc.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |

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| <p>Chicago Urban League * 4510 S. Michigan Ave. Chicago, IL 60653 Phone: 773-624-8810 Fax: 773-451-3579 Email: sbrinston@thechicagourbanleague.org Web: www.cul-chicago.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>Chicago Women in Trades (CWIT) 2444 W. 16th Street Chicago, IL 60608 Phone: 312-942-1444 Jayne Vellinga, Executive Director Email: jvellinga@cwit2.org Web: www.chicagowomenintrades2.org Maintains list of certified firms: No Provides training for businesses: Yes</p> |
| <p>Contractor Advisors Business Development Corp. * 1507 E. 53rd Street, Suite 906 Chicago, IL 60615 Phone: 312-436-0301 Email: info@contractoradvisors.us Web: www.contractoradvisors.us Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>Cosmopolitan Chamber of Commerce 1633 S. Michigan Avenue Chicago, IL 60616 Phone: 312-971-9594 Fax: 312-341-9084 Email: rmcgowan@cosmochamber.org Web: www.cosmochamber.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |
| <p>Do For Self Community Development Co. * 7447 S South Shore Drive, Unit 22B Chicago, IL 60649 Phone: 773-356-7661 Email: dennisdoforself@hotmail.com Web: www.doforself.org Maintains list of certified firms: No Provides training for businesses: Yes</p> | <p>Far South Community Development Corporation 9923 S. Halsted Street, Suite D Chicago, IL 60628 Phone: 773-941-4833 Fax: 773-941-5252 Email: lacy@farsouth.org Web: www.farsouthcdc.org Maintains list of certified firms: No Provides training for businesses: Yes</p> |
| <p>Federation of Women Contractors * 216 W. Jackson Blvd. #625 Chicago, IL 60606 Phone: 312-360-1122 Fax: 312-750-1203 Email: fwcchicago@aol.com Web: www.fwcchicago.com Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>Fresh Start Home Community Development Corp. 5168 S. Michigan Avenue, 4N Chicago, IL 60615 Phone: 312-632-0811 Fax: 855-270-4175 Email: Info@FreshStartNow.us Web: www.FreshStartNow.us Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |
| <p>Greater Englewood Community Development Corp. * 815 W. 63rd Street Chicago, IL 60621 Phone: 773-651-2400 Fax: 773-651-2400 Email: jharbin@greaterenglewoodcdc.org Web: www.greaterenglewoodcdc.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>Greater Pilsen Economic Development Assoc. * 1801 S. Ashland Chicago, IL 60608 Phone: 312-698-8898 Email: greaterpilsen@gmail.com Web: www.greaterpilsen.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |
| <p>Greater Far South Halsted Chamber of Commerce * 10615 S. Halsted Street Chicago, IL 60628 Phone: 518-556-1641 Fax: 773-941-4019 Email: halstedchamberevents@gmail.com Web: www.greaterfarsouthhalstedchamber.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>Greater Southwest Development Corporation 2601 W. 63rd Street Chicago, IL 60629 Phone: 773-362-3373 Fax: 773-471-8206 Email: c.james@greatersouthwest.org Web: www.greatersouthwest.org Maintains list of certified firms: No Provides training for businesses: Yes</p> |

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| <p>Hispanic American Construction Industry Association (HACIA) * 650 W. Lake St., Unit 415 Chicago, IL 60661 Phone: 312-575-0389 Fax: 312-575-0544 Email: jperez@haciaworks.org Web: www.haciaworks.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>Illinois Hispanic Chamber of Commerce * 222 Merchandise Mart Plaza, Suite 1212 c/o 1871 Chicago, IL 60654 Phone: 312-425-9500 Email: aalcantar@ihccbbusiness.net Web: www.ihccbbusiness.net Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |
| <p>Illinois State Black Chamber of Commerce * 411 Hamilton Blvd., Suite 1404 Peoria, Illinois 61602 Phone: 309-740-4430 / 773-294-8038 Fax: 309-672-1379 Email: LarryIvory@IllinoisBlackChamber.org; yqilb66709@yahoo.com www.illinoisblackchamberofcommerce.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>JLM Business Development Center * 2622 W. Jackson Boulevard Chicago, IL 60612 Phone: 773-826-3295 Fax: 773-359-4021 Email: jlmbizcenter@gmail.com Web: www.jlmcenter.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |
| <p>Latin American Chamber of Commerce * 3512 W. Fullerton Avenue Chicago, IL 60647 Phone: 773-252-5211 Fax: 773-252-7065 Email: d.lorenzopadron@LACCUSA.com Web: www.LACCUSA.com Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>National Association of Women Business Owners * 500 Davis Street, Ste 812 Evanston, IL 60201 Phone: 773-410-2484 Fax: 847-328-2018 Email: wjaehn@nawbochicago.org Web: www.nawbochicago.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |
| <p>National Black Wall Street * 4655 S. King Drive, Suite 203 Chicago, IL 60653 Phone: 773-268-6900 Fax: 773-392-0165 Email: markallen2800@aol.com Web: www.nationalblackwallstreetchicago.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>National Organization of Minority Engineers (NOME) * 33 W. Monroe, Suite 1540 Chicago, IL 60603 Phone: 312-960-1239 Email: grandevents1@sbcglobal.net Web: www.nomeonline.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |
| <p>Neighborhood Development Services, NFP * 10416 South Maryland Avenue Chicago, IL 60628 Phone: 773-413-9348 Fax: 773-371-0032 Email: neighborhooddevservices@gmail.com Web: www.ndsnfp.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>Rainbow/PUSH Coalition * 930 E. 50th Street Chicago, IL 60615 Phone: 773-256-2768 Fax: 773-373-4103 Email: jmitchell@rainbowpush.org Web: www.rainbowpush.org Maintains list of certified firms: Yes Provides training for businesses: No</p> |
| <p>Real Men Charities, Inc. 2423 E. 75th Street Chicago, IL 60649 Phone: 773-425-4113 Email: ymoyo@realmencook.com Web: www.realmencook.com Maintains list of certified firms: No Provides training for businesses: Yes</p> | <p>RTW Veteran Center 7415 E. End, Suite 120 Chicago, IL 60649 Phone: 773-406-1069 Fax: 866-873-2494 Email: rtwvetcenter@yahoo.com Web: www.rtwvetcenter.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |

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| <p>South Shore Chamber, Inc. * 1750 E. 71st Street Chicago, IL 60649-2000 Phone: 773-955- 9508 Tonya Trice, Executive Director Email: ttrice@southshorechamberinc.org Web: www.southshorechamberinc.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>St. Paul Church of God in Christ Community Development Ministries, Inc. (SPCDM) 4550 S. Wabash Avenue Chicago, IL. 60653 Phone: 773-538-5120 Fax: 773-538-5125 Email: spcdm@sbcglobal.net Web: www.stpaulcdm.org Maintains list of certified firms: No Provides training for businesses: Yes</p> |
| <p>The Monroe Foundation 1547 South Wolf Road Hillside, Illinois 60162 Phone: 773-315-9720 Email: omonroe@themonroefoundation.org Web: www.themonroefoundation.org Maintains list of certified firms: No Provides training for businesses: Yes</p> | <p>US Minority Contractors Association, Inc. * 1250 Grove Ave. Suite 200 Barrington, IL 60010 Phone: 847-708-1597 Fax: 847-382-1787 Email: admin@usminoritycontractors.org Web: www.USMinorityContractors.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> |
| <p>Women's Business Development Center * 8 S. Michigan Ave., 4th Floor Chicago, IL 60603 Phone: 312-853-3477 Fax: 312-853-0145 Email: fcurry@wbdc.org Web: www.wbdc.org Maintains list of certified firms: Yes Provides training for businesses: Yes</p> | <p>Urban Broadcast Media, Inc. 4108 S. King Drive, Chicago, IL 60653 Phone: 312-614-1075 Email: drleonfinney312@gmail.com Web: www.urbanbroadcastmedia.org Maintains list of certified firms: No Provides training for businesses: Yes</p> |
| <p>Women Construction Owners & Executives (WCOE) * Chicago Caucus 308 Circle Avenue Forest Park, IL 60130 Phone: 708-366-1250 Email: mkm@mkmservices.com Web: www.wcoeusa.org Maintains list of certified firms: Yes Provides training for businesses: No</p> | <p>Your Community Consultants Foundation 9301 S. Parnell Ave., Chicago, IL 60620 Phone: 773-224-9299 Fax: 773-371-0032 Email: allen81354@aol.com Maintains list of certified firms: No Provides training for businesses: Yes</p> |

**Prime Contractors should contact with subcontracting opportunities to connect certified firms.*

Rev. Apr. 2018

SCHEDULE B: MBE/WBE Affidavit of Joint Venture

All information requested on this schedule must be answered in the spaces provided. Do not refer to your joint venture agreement except to expand on answers provided on this form. If additional space is required, attach additional sheets. In all proposed joint ventures, each MBE and/or WBE venturer must submit a copy of its current Letter of Certification.

I. Name of joint venture: _____
Address: _____
Telephone number of joint venture: _____

II. Email address: _____
Name of non-MBE/WBE venturer: _____
Address: _____
Telephone number: _____
Email address: _____
Contact person for matters concerning MBE/WBE compliance: _____

III. Name of MBE/WBE venturer: _____
Address: _____
Telephone number: _____
Email address: _____
Contact person for matters concerning MBE/WBE compliance: _____

IV. Describe the role(s) of the MBE and/or WBE venturer(s) in the joint venture: _____

V. Attach a copy of the joint venture agreement.

In order to demonstrate the MBE and/or WBE joint venture partner's share in the capital contribution, control, management, risks and profits of the joint venture is equal to its ownership interest, the proposed joint venture agreement must include specific details related to: (1) the contributions of capital, personnel and equipment and share of the costs of bonding and insurance; (2) work items to be performed by the MBE/WBE's own forces; (3) work items to be performed under the supervision of the MBE/WBE venturer; and (4) the commitment of management, supervisory and operative personnel employed by the MBE/WBE to be dedicated to the performance of the project.

VI. Ownership of the Joint Venture.

A. What is the percentage(s) of MBE/WBE ownership of the joint venture?

MBE/WBE ownership percentage(s)

B. Non-MBE/WBE ownership percentage(s) _____

C. Specify MBE/WBE percentages for each of the following (provide narrative descriptions and other details as applicable):

1. Profit and loss sharing: _____

2. Capital contributions:

a. Dollar amounts of initial contribution: _____

b. Dollar amounts of anticipated on-going contributions: _____

Revised 07/27/04

3. Contributions of equipment (Specify types, quality and quantities of equipment to be provided by each venturer):

4. Other applicable ownership interests, including ownership options or other agreements which restrict or limit ownership and/or control: _____

5. Costs of bonding (if required for the performance of the contract):

6. Costs of insurance (if required for the performance of the contract):

D. Provide copies of all written agreements between venturers concerning this project.

E. Identify each current City of Chicago contract and each contract completed during the past two years by a joint venture of two or more firms participating in this joint venture:

VII. Control of and Participation in the Joint Venture. _

Identify by name and firm those individuals who are, or will be, responsible for, and have the authority to engage in the following management functions and policy decisions. Indicate any limitations to their authority such as dollar limits and co-signatory requirements:

A. Joint venture check signing:

B. Authority to enter contracts on behalf of the joint venture:

C. Signing, co-signing and/or collateralizing loans:

D. Acquisition of lines of credit:

E. Acquisition and indemnification of payment and performance bonds:

F. Negotiating and signing labor agreements:

G. Management of contract performance. (Identify by name and firm only):

1. Supervision of field operations: _____
2. Major purchases: _____
3. Estimating: _____
4. Engineering: _____

VIII. Financial Controls of joint venture:

A. Which firm and/or individual will be responsible for keeping the books of account?

B. Identify the "managing partner," if any, and describe the means and measure of his/her compensation:

C. What authority does each venturer have to commit or obligate the other to insurance and bonding companies, financing institutions, suppliers, subcontractors, and/or other parties participating in the performance of this contract or the work of this project?

IX. State the approximate number of operative personnel by trade needed to perform the joint venture's work under this contract. Indicate whether they will be employees of the non-MBE/WBE firm, the MBE/WBE firm, or the joint venture.

| Trade | Non-MBE/WBE Firm (Number) | MBE/WBE (Number) | Joint Venture (Number) |
|-------|------------------------------|---------------------|---------------------------|
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X. If any personnel proposed for this project will be employees of the joint venture:

A. Are any proposed joint venture employees currently employed by either venturer?

Currently employed by non-MBE/WBE venturer (number)____Employed by MBE/WBE venturer__

B. Identify by name and firm the individual who will be responsible for hiring joint venture employees:

C. Which venturer will be responsible for the preparation of joint venture payrolls:

XI. Please state any material facts of additional information pertinent to the control and structure of this joint venture.

The undersigned affirms that the foregoing statements are correct and include all material information necessary to identify and explain the terms and operations of our joint venture and the intended participation of each venturer in the undertaking. Further, the undersigned covenant and agree to provide to the City current, complete and accurate information regarding actual joint venture work and the payment therefore, and any proposed changes in any provision of the joint venture agreement, and to permit the audit and examination of the books, records and files of the joint venture, or those of each venturer relevant to the joint venture by authorized representatives of the City or the Federal funding agency.

Any material misrepresentation will be grounds for terminating any contract that may be awarded and for initiating action under federal or state laws concerning false statements.

Note: If, after filing this Schedule B and before the completion on the joint venture's work on the project, there is any change in the information submitted, the joint venture must inform the City of Chicago, either directly or through the prime contractor if the joint venture is a subcontractor.

Name of MBE/WBE Partner Firm

Name of Non-MBE/WBE Partner Firm

Signature of Affiant

Signature of Affiant

Name and Title of Affiant

Name and Title of Affiant

Date

Date

On this day of _____, 20____, the above-signed officers

(names of affiants)

personally appeared and, known to me be the persons described in the foregoing Affidavit, acknowledged that they executed the same in the capacity therein stated and for the purpose therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Signature of Notary Public

My Commission Expires: _____(Seal)



SCHEDULE C
MBE/WBE Letter of Intent to
Perform as a Subcontractor to the Prime Contractor

**FOR
CONSTRUCTION
PROJECTS ONLY**

NOTICE: THIS SCHEDULE MUST BE AUTHORIZED AND SIGNED BY THE MBE/WBE SUBCONTRACTOR FIRM. FAILURE TO COMPLY MAY RESULT IN THE BID BEING REJECTED AS NON-RESPONSIVE.

Project Name: _____ Specification: No.: _____

From: _____
 (Name of MBE/WBE Firm)

To: _____ and the City of Chicago.
 (Name of Prime Contractor)

The MBE or WBE status of the undersigned is confirmed by the attached City of Chicago or Cook County Certification Letter. 100% MBE or WBE participation is credited for the use of a MBE or WBE "manufacturer." 60% participation is credited for the use of a MBE or WBE "regular dealer."

The undersigned is prepared to perform the following services in connection with the above named project/contract. If more space is required to fully describe the MBE or WBE proposed scope of work and/or payment schedule, attach additional sheets as necessary. The description must establish that the undersigned is performing a commercially useful function:

The above described performance is offered for the following price and described terms of payment:

| <u>Pay Item No./Description</u> | <u>Quantity/Unit Price</u> | <u>Total</u> |
|---------------------------------|----------------------------|--------------|
| | | |
| | | |
| | | |

Subtotal: \$ _____
 Total @ 100%: \$ _____
 Total @ 60% (if the undersigned is performing work as a regular dealer): \$ _____

NOTICE: THIS SCHEDULE AND ATTACHMENTS REQUIRE ORIGINAL SIGNATURES ON EACH PAGE.

 (If not the undersigned, signature of person who filled out this Schedule C) (Date)

 (Name/Title-Please Print) (Company Name-Please Print)

 (Signature of President/Owner/CEO or Authorized Agent of MBE/WBE) (Date)

 (Name/Title-Please Print)

Schedule C: MBE/WBE Letter of Intent to Perform as a Subcontractor to the Prime Contractor

Partial Pay Items

For any of the above items that are partial pay items, specifically describe the work and subcontract dollar amount(s):

| <u>Pay Item No./Description</u> | <u>Quantity/Unit Price</u> | <u>Total</u> |
|---------------------------------|----------------------------|--------------|
| | | |
| | | |
| | | |

Subtotal: \$ _____

Total @ 100%: \$ _____

Total @ 60% (if the undersigned is performing work as a regular dealer): \$ _____

SUB-SUBCONTRACTING LEVELS

A zero (0) must be shown in each blank if the MBE or WBE will not be subcontracting any of the work listed or attached to this schedule.

_____ % of the dollar value of the MBE or WBE subcontract that will be subcontracted to non MBE/WBE contractors.

_____ % of the dollar value of the MBE or WBE subcontract that will be subcontracted to MBE or WBE contractors.

NOTICE: If any of the MBE or WBE scope of work will be subcontracted, list the name of the vendor and attach a brief explanation, description and pay item number of the work that will be subcontracted. MBE/WBE credit will not be given for work subcontracted to Non-MBE/WBE contractors, except for as allowed in the Special Conditions Regarding Minority Business Enterprise Commitment and Women Business Enterprise Commitment in Construction Contracts.

The undersigned will enter into a formal written agreement for the above work with you as a Prime Contractor, conditioned upon your execution of a contract with the City of Chicago, within three (3) business days of your receipt of a signed contract from the City of Chicago.

The undersigned has entered into a formal written mentor protégé agreement as a subcontractor/protégé with you as a Prime Contractor/mentor. () Yes () No

NOTICE: THIS SCHEDULE AND ATTACHMENTS REQUIRE ORIGINAL SIGNATURES ON EACH PAGE.

 (If not the undersigned, signature of person who filled out this Schedule C) (Date)

 (Name/Title-Please Print) (Company Name-Please Print)

 (Email & Phone Number)

 (Signature of President/Owner/CEO or Authorized Agent of MBE/WBE) (Date)

 (Name/Title-Please Print)

 (Email & Phone Number)



**FOR
CONSTRUCTION
PROJECTS ONLY**

SCHEDULE C
MBE/WBE Letter of Intent to Perform as a
2nd Tier Subcontractor to the Prime Contractor

Project Name: _____ Specification No.: _____

From: _____
 (Name of MBE/WBE Firm)

To: _____
 (Name of 1st Tier Contractor)

To: _____ and the City of Chicago.
 (Name of Prime Contractor)

The MBE or WBE status of the undersigned is confirmed by the attached City of Chicago or Cook County Certification Letter. 100% MBE or WBE participation is credited for the use of a MBE or WBE "manufacturer." 60% participation is credited for the use of a MBE or WBE "regular dealer."

The undersigned is prepared to perform the following services in connection with the above named project/contract. If more space is required to fully describe the MBE or WBE proposed scope of work and/or payment schedule, attach additional sheets as necessary:

The above described performance is offered for the following price and described terms of payment:

| Pay Item No./Description | Quantity/Unit Price | Total |
|--------------------------|---------------------|-------|
| | | |
| | | |
| | | |

Subtotal: \$ _____

Total @ 100%: \$ _____

Total @ 60%: \$ _____

Partial Pay Items

For any of the above items that are partial pay items, specifically describe the work and subcontract dollar amount(s):

| Pay Item No./Description | Quantity/Unit Price | Total |
|--------------------------|---------------------|-------|
| | | |
| | | |
| | | |

Subtotal: \$ _____

Total @ 100%: \$ _____

Total @ 60%: \$ _____

Schedule C: MBE/WBE Letter of Intent to Perform as a 2nd Tier Sub to the Prime Contractor

SUB-SUBCONTRACTING LEVELS

A zero (0) must be shown in each blank if the MBE or WBE will not be subcontracting any of the work listed or attached to this schedule.

_____ % of the dollar value of the MBE or WBE subcontract that will be subcontracted to non MBE/WBE contractors.

_____ % of the dollar value of the MBE or WBE subcontract that will be subcontracted to MBE or WBE contractors.

NOTICE: If any of the MBE or WBE scope of work will be subcontracted, list the name of the vendor and attach a brief explanation, description and pay item number of the work that will be subcontracted. MBE/WBE credit will not be given for work subcontracted to Non-MBE/WBE contractors, except for as allowed in the Special Conditions Regarding Minority Business Enterprise Commitment and Women Business Enterprise Commitment in Construction Contracts.

The undersigned will enter into a formal written agreement for the above work with you as a Prime Contractor, conditioned upon your execution of a contract with the City of Chicago, within three (3) business days of your receipt of a signed contract from the City of Chicago.

The undersigned has entered into a formal written mentor protégé agreement as a subcontractor/protégé with you as a Prime Contractor/mentor: () Yes () No

NOTICE: THIS SCHEDULE AND ATTACHMENTS REQUIRE ORIGINAL SIGNATURES.

(Signature of President/Owner/CEO or Authorized Agent of MBE/WBE)

(Date)

(Name/Title-Please Print)

(Email & Phone Number)

SCHEDULE C (Construction)

MBE/WBE Letter of Intent to Perform as a SUPPLIER

Project Name: _____ Specification Number: _____

From: _____
(Name of MBE or WBE Firm)

To: _____ and the City of Chicago:
(Name of Prime Contractor)

The MBE or WBE status of the undersigned is confirmed by the attached City of Chicago or Cook County Certification Letter. 100% MBE or WBE participation is credited for the use of a MBE or WBE "manufacturer". 60% participation is credited for the use of a MBE or WBE "regular dealer".

The undersigned is prepared to supply the following goods in connection with the above named project/contract. On a separate sheet, fully describe the MBE or WBE proposed scope of work and/or payment schedule, including a description of the commercially useful function being performed. Attach additional sheets as necessary:

| Pay Item No. / Description | Quantity / Unit Price | Total |
|----------------------------|-----------------------|----------|
| | | |
| | | |
| | | |
| | Line 1: Sub Total: | \$ _____ |
| | Line 2: Total @ 100%: | \$ _____ |
| | Line 3: Total @ 60%: | \$ _____ |

Partial Pay Items.

For any of the above items that are partial pay items, specifically describe the work and subcontract dollar amount(s):

| Pay Item No. / Description | Quantity / Unit Price | Total |
|----------------------------|-----------------------|----------|
| | | |
| | | |
| | | |
| | Line 1: Sub Total: | \$ _____ |
| | Line 2: Total @ 100%: | \$ _____ |
| | Line 3: Total @ 60%: | \$ _____ |

SUB-SUBCONTRACTING LEVELS - A zero (0) must be shown in each blank if the MBE or WBE will not be subcontracting any of the work listed or attached to this schedule.

_____ % of the dollar value of the MBE or WBE subcontract that will be subcontracted to non-MBE/WBE contractors.

_____ % of the dollar value of the MBE or WBE subcontract that will be subcontracted to MBE or WBE contractors.

NOTICE: If any of the MBE or WBE scope of work will be subcontracted, list the name of the vendor and attach a brief explanation, description and pay item number of the work that will be subcontracted. MBE/WBE credit will not be given for work subcontracted to non-MBE/WBE contractors, except for as allowed in the Special Conditions Regarding Minority Business Enterprise Commitment and Women Business Enterprise Commitment in Construction Contracts.

The undersigned will enter into a formal written agreement for the above work with you as a Prime Contractor, conditioned upon your execution of a contract with the City of Chicago, within three (3) business days of your receipt of a signed contract from the City of Chicago.

The undersigned has entered into a formal written mentor protégé agreement as a subcontractor/protégé with you as a Prime Contractor/mentor: () Yes () No

NOTICE: THIS SCHEDULE AND ATTACHMENTS REQUIRE ORIGINAL SIGNATURES.

Signature of Owner, President or Authorized Agent of MBE or WBE Date

Name /Title (Print)

Phone Number

Email Address



SCHEDULE D
 Compliance Plan Regarding MBE & WBE Utilization
Affidavit of Prime Contractor

**FOR
 CONSTRUCTION
 PROJECTS ONLY**

**MUST BE SUBMITTED WITH THE BID. FAILURE TO SUBMIT THE SCHEDULE D WILL CAUSE THE
 BID TO BE REJECTED. DUPLICATE AS NEEDED.**

Project Name: _____

Specification No.: _____

In connection with the above captioned contract, I HEREBY DECLARE AND AFFIRM that I am the

_____ and a duly authorized representative of
 (Title of Affiant)

 (Name of Prime Contractor)

and that I have personally reviewed the material and facts set forth in the attached Schedule Cs regarding Minority Business Enterprise and Women Business Enterprise (MBE/WBE) to perform as subcontractor, Joint Venture Agreement, and Schedule B (if applicable). All MBEs and WBEs must be certified with the City of Chicago or Cook County in the area(s) of specialty listed.

| <u>Name of MBE</u> | <u>Type of Work to be Performed in accordance with Schedule Cs</u> | <u>Total MBE Participation in dollars</u> | <u>MBE Participation in percentage</u> | <u>Mentor Protégé Program Credit Claimed</u> | <u>Total MBE Participation in percentage</u> |
|--------------------|--|---|--|--|--|
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |

| Name of WBE | <u>Type of Work to be Performed in accordance with Schedule Cs</u> | Total WBE Participation in dollars | <u>WBE Participation in percentage</u> | <u>Mentor Protégé Program Credit Claimed</u> | <u>Total WBE Participation in percentage</u> |
|-------------|--|------------------------------------|--|--|--|
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |
| | | \$ | % | % | % |

Check here if the following is applicable: The Prime Contractor intends to enter into mentor protégé agreements with certain MBEs/WBEs listed above as indicated by entries in the "Mentor Protégé Program Credit Claimed" column. Copies of each proposed mentoring program, executed by authorized representatives of the Prime Contractor and respective subcontractor, are attached to this Schedule D. The Prime Contractor may claim an additional 0.333 percent participation credit (up to a maximum of five (5) percent) for every one (1) percent of the value of the contract performed by the MBE/WBE protégé firm.

Total MBE Participation \$ _____

Total MBE Participation % (including any Mentor Protégé Program credit) _____

Total WBE Participation \$ _____

Total WBE Participation % (including any Mentor Protégé Program credit) _____

Total Bid \$ _____

To the best of my knowledge, information and belief the facts and representations contained in the aforementioned attached Schedules are true, and no material facts have been omitted.

The Prime Contractor designates the following person as its MBE/WBE Liaison Officer:

_____ (Name- Please Print or Type) (Phone)

I DO SOLEMNLY DECLARE AND AFFIRM UNDER PENALTIES OF PERJURY THAT THE CONTENTS OF THE FOREGOING DOCUMENT ARE TRUE AND CORRECT, AND THAT I AM AUTHORIZED ON BEHALF OF THE PRIME CONTRACTOR TO MAKE THIS AFFIDAVIT.

(Name of Prime Contractor – Print or Type)

State of: _____

(Signature)

County of: _____

(Name/Title of Affiant – Print or Type)

(Date)

On this ____ day of _____, 20____, the above signed officer _____
(Name of Affiant)

personally appeared and, known by me to be the person described in the foregoing Affidavit, acknowledged that (s)he executed the same in the capacity stated therein and for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and seal.

(Notary Public Signature)

SEAL:

Commission Expires: _____

SCHEDULE F: REPORT OF SUBCONTRACTOR SOLICITATIONS FOR CONSTRUCTION CONTRACTS

Submit Schedule F with the bid. Failure to submit the Schedule F may cause the bid to be rejected.

Duplicate sheets as needed.

Project Name: _____

Specification #: _____

I, _____ on behalf of _____
(Name of reporter) (Prime contractor)

have either personally solicited, or permitted a duly authorized representative of this firm to solicit, work for this contract from the following subcontractors which comprise all MBE/WBE and non-MBE/WBE subcontractors who bid or quoted price information on this contract

Company Name _____
Business Address _____
Contact Person _____
Date of contact _____
Method of contact _____
Response to solicitation _____
Type of Work Solicited _____
Please circle classification: MBE Certified WBE Certified MBE & WBE Certified Non- Certified

Company Name _____
Business Address _____
Contact Person _____
Date of contact _____
Method of contact _____
Response to solicitation _____
Type of Work Solicited _____
Please circle classification: MBE Certified WBE Certified MBE & WBE Certified Non- Certified

Company Name _____
Business Address _____
Contact Person _____
Date of contact _____
Method of contact _____
Response to solicitation _____
Type of Work Solicited _____
Please circle classification: MBE Certified WBE Certified MBE & WBE Certified Non- Certified

Company Name _____
Business Address _____
Contact Person _____
Date of contact _____
Method of contact _____
Response to solicitation _____
Type of Work Solicited _____
Please circle classification: MBE Certified WBE Certified MBE & WBE Certified Non- Certified

Company Name _____
Business Address _____
Contact Person _____
Date of contact _____
Method of contact _____
Response to solicitation _____
Type of Work Solicited _____
Please circle classification: MBE Certified WBE Certified MBE & WBE Certified Non- Certified

Company Name _____
Business Address _____
Contact Person _____
Date of contact _____
Method of contact _____
Response to solicitation _____
Type of Work Solicited _____
Please circle classification: MBE Certified WBE Certified MBE & WBE Certified Non- Certified

Company Name _____
Business Address _____
Contact Person _____
Date of contact _____
Method of contact _____
Response to solicitation _____
Type of Work Solicited _____
Please circle classification: MBE Certified WBE Certified MBE & WBE Certified Non- Certified

Company Name _____
Business Address _____
Contact Person _____
Date of contact _____
Method of contact _____
Response to solicitation _____
Type of Work Solicited _____
Please circle classification: MBE Certified WBE Certified MBE & WBE Certified Non- Certified

Company Name _____
Business Address _____
Contact Person _____
Date of contact _____
Method of contact _____
Response to solicitation _____
Type of Work Solicited _____
Please circle classification: MBE Certified WBE Certified MBE & WBE Certified Non- Certified

I DO SOLEMNLY DECLARE AND AFFIRM UNDER PENALTIES OF PERJURY THAT THE CONTENTS OF THE FOREGOING DOCUMENT ARE TRUE AND CORRECT, AND THAT I AM AUTHORIZED ON BEHALF OF THE PRIME CONTRACTOR TO MAKE THIS AFFIDAVIT.

(Name of Prime Contractor - Print or Type)

(Signature)

(Name/Title of Affiant) - Print or Type)

(Date)

On this _____ day of _____, 20 _____,

the above signed officer, _____,
(Name of Affiant)

personally appeared and, known by me to be the person described in the foregoing Affidavit, acknowledged that (s)he executed the same in the capacity stated therein and for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and seal.

Notary Public Signature

(Seal)

Commission Expires: _____

07/29/04

SCHEDULE H: DOCUMENTATION OF GOOD FAITH EFFORTS TO UTILIZE MBEs AND WBEs ON CONSTRUCTION CONTRACT

Project Name: _____

Specification # _____

The Department of Procurement Services reserves the right to audit and verify all Good Faith Efforts as a condition of award. Material misrepresentations and omissions shall cause the bid to be rejected.

The following is documentation and explanation of the bidder's Good Faith Efforts to meet the contract specific goals as described in the Good Faith Efforts Checklist as part of Schedule D. The Schedule D cannot be modified without the written approval of DPS.

I, _____ on behalf of _____
(Name of reporter) (Prime contractor)

have determined that it is unable to meet the contract specific goals in full or in part as set forth in the Special Conditions Regarding Minority and Women Business Enterprise Commitment in Construction Contracts. I hereby declare and affirm that the following good faith efforts were undertaken by the Bidder/Contractor to meet the MBE and/or WBE contract specific goals of this project.

Good Faith Efforts Checklist from Schedule D Attach additional sheets as needed.

___ Solicited through reasonable and available means at least 50% (or at least 5 when there are more than 11 certified firms in the commodity area) of MBEs and WBEs certified in the anticipated scopes of subcontracting of the contract, within sufficient time to allow them to respond, as described in the Schedule F.
Attach copies of written notices sent to MBEs and WBEs.

___ Provided timely and adequate information about the plan, specifications and requirements of the contract.
Attach copies of contract information provided to MBES and WBEs.

___ Advertised the contract opportunities in media and other venues oriented toward MBEs and WBEs.
Attach copies of advertisements.

___ Negotiated in good faith with interested MBEs or WBEs that have submitted bids and thoroughly investigated their capabilities.
Attach Schedule F, Report of Subcontractor Solicitations for Construction Contracts.

___ Selected those portions of the work or material consistent with the available MBE or WBE subcontractors and suppliers, including, where appropriate, breaking out contract work items into economically feasible units to facilitate MBE or WBE participation.
Describe selection of scopes of work solicited from MBEs and WBEs and efforts to break out work items.

___ Made efforts to assist interested MBEs or WBEs in obtaining bonding, lines of credit, or insurance as required by the City or bidder or contractor.

Describe assistance efforts.

___ Made efforts to assist interested MBEs or WBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

Describe assistance efforts.

___ Effectively used the services of the City; minority or women community organizations; minority or women assistance groups; local, state, and federal minority or women business assistance offices; and other organizations to provide assistance in the recruitment and placement of MBEs or WBEs as listed on Attachment A.

Describe efforts to use agencies listed on Attachment A.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THE FOREGOING DOCUMENT ARE TRUE AND CORRECT, AND THAT I AM AUTHORIZED, ON BEHALF OF THE CONTRACTOR, TO MAKE THIS AFFIDAVIT.

Name of Contractor: _____
(Print or Type)

Signature: _____
(Signature of Affiant)

Name of Affiant: _____
(Print or Type)

Date: _____
(Print or Type)

State of _____

County (City) of _____

This instrument was acknowledged before me on _____ (date)
by _____ (name/s of person/s)
as _____ (type of authority, e.g., officer, trustee, etc.)
of _____ (name of party on behalf of whom instrument
was executed).

Signature of Notary Public

(Seal)

STATUS REPORT OF MBE/WBE (SUB) CONTRACT PAYMENTS

Specification No.: _____

Department Project No.: _____

Date: _____

Voucher No.: _____

STATE OF: _____)

COUNTY (CITY) OF: _____)

In connection with the above-captioned contract:

I HEREBY DECLARE AND AFFIRM that I am the _____
(Title - Print or Type)

and duly authorized representative of _____
(Name of Company - Print or Type)

(Address of Company) (_____) _____
(Phone)

and that the following Minority and Women Business Enterprises (MBE/WBEs) have been contracted with, and have furnished, or are furnishing and preparing materials for, and have done or are doing labor on the above referenced project; that there is due and to become due them, respectively the amounts set opposite their names for material or labor as stated; and that this a full, true and complete statement of all such MBE/WBEs and of the amounts paid, due, and to become due to them:

| MBE/WBE | GOODS/SERVICES PROVIDED | AMOUNT OF CONTRACT | AMOUNT PAID TO DATE |
|---------|-------------------------|--------------------|---------------------|
| | | \$ | \$ |
| | | \$ | \$ |
| | | \$ | \$ |
| | | \$ | \$ |
| | | \$ | \$ |
| | | \$ | \$ |

TOTAL AMOUNT PAID TO MBEs TO DATE: \$ _____

TOTAL AMOUNT PAID TO WBEs TO DATE: \$ _____

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THE FOREGOING DOCUMENT ARE TRUE AND CORRECT, AND THAT I AM AUTHORIZED, ON BEHALF OF THE CONTRACTOR, TO MAKE THIS AFFIDAVIT.

Name of Contractor: _____
(Print or Type)

Signature: _____
(Signature of Affiant)

Name of Affiant: _____
(Print or Type)

Date: _____
(Print or Type)

State of _____

County (City) of _____

This instrument was acknowledged before me on _____ (date)

by _____ (name/s of person/s)

as _____ (type of authority, e.g., officer, trustee, etc.)

of _____ (name of party on behalf of whom instrument was executed).

Signature of Notary Public

(Seal)

AFFIDAVIT OF UNCOMPLETED WORK
 (Complete this form by either typing or using black ink.)

PART I. WORK UNDER CONTRACT

List below all work you have under contract as either a prime contractor or a subcontractor, including all pending low bids not yet awarded or rejected.

| | 1 | 2 | 3 | 4 | 5 | Awards Pending | |
|---------------------------|---|---|---|---|---|----------------|-------|
| PROJECT | | | | | | | |
| CONTRACT WITH | | | | | | | |
| ESTIMATED COMPLETION DATE | | | | | | | |
| TOTAL CONTRACT PRICE | | | | | | | TOTAL |
| UNCOMPLETED DOLLAR VALUE | | | | | | | |

PART II. UNCOMPLETED WORK TO BE DONE WITH YOUR OWN FORCES.

List below the uncompleted dollar value of work for each contract to be completed with your own forces including all work indicated as awards pending. All work subcontracted TO others will be listed on PART III of this form. In a joint venture, list only that portion of the work to be done by your company.

| | | | | | | | TOTALS |
|---|--|--|--|--|--|--|--------|
| EXCAVATING & GRADING | | | | | | | |
| PCC BASE, C&G PAVING | | | | | | | |
| BIT CONCRETE | | | | | | | |
| STABILIZED BASE (BAM, AGGREGATE BASE AND FILL | | | | | | | |
| FOUNDATION (CAISSON & | | | | | | | |
| HIGHWAY STRUCTURES | | | | | | | |
| SEWER & DRAIN | | | | | | | |
| PAINTING | | | | | | | |
| PAVEMENT MARKING | | | | | | | |
| SIGNING | | | | | | | |
| LANDSCAPING | | | | | | | |
| DEMOLITION | | | | | | | |
| FENCING | | | | | | | |

| | 1 | 2 | 3 | 4 | 5 | Awards |
|---|---|---|---|---|---|--------|
| OTHERS (LIST) | | | | | | |
| | | | | | | |
| | | | | | | |
| STRUCT. | | | | | | |
| STEEL (BLDG. | | | | | | |
| ORNAMENTAL | | | | | | |
| STEEL (BLDG. | | | | | | |
| MISCELLANEOUS | | | | | | |
| CONCRETE | | | | | | |
| FIREPROOFING | | | | | | |
| MASONRY | | | | | | |
| H.V.A.C. | | | | | | |
| MECHANICAL | | | | | | |
| ELECTRICAL | | | | | | |
| PLUMBING | | | | | | |
| ROOFING & SHEET METAL | | | | | | |
| FLOORING & TILE WORK | | | | | | |
| DRYWALL AND PLASTER | | | | | | |
| CEILING CONST. | | | | | | |
| HOLLOW METAL AND GLAZING AND CAULKING | | | | | | |
| MISCELLANEOUS ARCH. WORK | | | | | | |
| OTHERS (LIST) | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| TOTALS | | | | | | |

REMARKS. _____

PART III. WORK SUBCONTRACTED TO OTHERS. List below the work, according to each contract on the preceding page, which you have subcontracted to others. DO NOT include work to be performed by another prime contractor in a joint venture. No work may be indicated as subcontracted to others on awards pending. If no work is subcontracted to others, show NONE.

| | 1 | 2 | 3 | 4 | 5 |
|--------------------|---|---|---|---|---|
| SUBCONTRACTOR | | | | | |
| TYPE OF WORK | | | | | |
| SUBCONTRACT PRICE | | | | | |
| AMOUNT UNCOMPLETED | | | | | |
| SUBCONTRACTOR | | | | | |
| TYPE OF WORK | | | | | |
| SUBCONTRACT PRICE | | | | | |
| AMOUNT UNCOMPLETED | | | | | |
| SUBCONTRACTOR | | | | | |
| TYPE OF WORK | | | | | |
| SUBCONTRACT PRICE | | | | | |
| AMOUNT UNCOMPLETED | | | | | |
| SUBCONTRACTOR | | | | | |
| TYPE OF WORK | | | | | |
| SUBCONTRACT PRICE | | | | | |
| AMOUNT UNCOMPLETED | | | | | |
| SUBCONTRACTOR | | | | | |
| TYPE OF WORK | | | | | |
| SUBCONTRACT PRICE | | | | | |
| AMOUNT UNCOMPLETED | | | | | |
| SUBCONTRACTOR | | | | | |
| TYPE OF WORK | | | | | |
| SUBCONTRACT PRICE | | | | | |
| AMOUNT UNCOMPLETED | | | | | |

I, being duly sworn do hereby declare that this affidavit is a true and correct statement relating to ALL uncompleted contracts of the undersigned for Federal, State, County, City and private work including ALL subcontract work, ALL pending low bids not yet awarded or rejected, and ALL estimated completion dates.

Subscribed and sworn to before me this _____ day of _____ 20____. Signed _____
 Company _____
 Address _____

My commission expires _____

Policy Prohibiting Sexual Harassment (Section 2-92-612 of the Chicago Municipal Code)

This section applies if this Contract was advertised on or after June 30, 2018.

For purposes of this section, the following definitions shall apply:

“Contract” means any contract, purchase order, construction project, or other agreement (other than a delegate agency contract or lease of real property or collective bargaining agreement) awarded by the city and whose cost is to be paid from funds belonging to or administered by the city.

“Contractor” means the person to whom a contract is awarded.

“Sexual harassment” means any unwelcome sexual advances or requests for sexual favors or conduct of a sexual nature when (i) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment; or (ii) submission to or rejection of such conduct by an individual is used as the basis for any employment decision affecting the individual; or (iii) such conduct has the purpose or effect of substantially interfering with an individual's work performance or creating an intimidating, hostile or offensive working environment.

“Subcontractor” means any person that enters into a contract with a contractor to perform work on a contract.

As a condition of contract award, Contractor shall, as prescribed by the Chief Procurement Officer, attest by affidavit that Contractor has a written policy prohibiting sexual harassment that shall include, at a minimum, the following information: (i) the illegality of sexual harassment; (ii) the definition of sexual harassment; and (iii) the legal recourse available for victims of sexual harassment. Contractor's affidavit is included in Book 2 in the form titled “Sexual Harassment Policy Affidavit”.

Contractor's failure to have a written policy prohibiting sexual harassment as provided above shall constitute an event of default. In the event of default, the Chief Procurement Officer shall notify Contractor of such noncompliance and may, as appropriate: (i) issue Contractor an opportunity to cure consistent with the default provisions in this Agreement; (ii) terminate the contract; or (iii) take any other action consistent with the default provisions in the contract. This section shall not be construed to prohibit the City from prosecuting any person who knowingly makes a false statement of material fact to the city pursuant to Chapter 1-21 of this Code, or from availing itself of any other remedies under contract or law.

SEXUAL HARASSMENT POLICY AFFIDAVIT (SECTION 2-92-612)

The policy prohibiting sexual harassment as described in Section 2-92-612 of the Municipal Code of Chicago ("MCC") is applicable to contracts paid from funds belonging to or administered by the City.

Contract title: _____

Specification #: _____

In accordance with requirements set forth in Section 2-92-612 of the MCC, Contractor hereby attests that Contractor has a written policy prohibiting sexual harassment that includes, at a minimum, the following information:

- (i) the illegality of sexual harassment;
- (ii) the definition of sexual harassment; and
- (iii) the legal recourse available for victims of sexual harassment.

Contractor understands that it may be required to produce records to the CPO to verify the information provided.

Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of Contractor, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Contractor: _____

(Print or Type)

Signature of Authorized Officer: _____

(Signature)

Title of Signatory: _____

(Print or Type)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by

_____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)

Policy on Non-Disclosure of Salary History (Section 2-92-385 of the Chicago Municipal Code)

This section applies if this Contract was advertised on or after August 25, 2018.

For purposes of this section, the following definitions shall apply:

“Contract” means any Agreement or transaction pursuant to which a contractor (i) receives City funds in consideration for services, work or goods provided or rendered, including contracts for legal or other professional services, or (ii) pays the City money in consideration for a license, grant or concession allowing it to conduct a business on City premises, and includes any contracts not awarded or processed by the Department of Procurement Services.

“Contractor” means the person to whom a contract is awarded.

As a condition of contract award, Contractor shall, as prescribed by the Chief Procurement Officer, attest by affidavit that Contractor has a policy that conforms to the following requirements:

- (1) Contractor shall not screen job applicants based on their wage or salary history, including by requiring that an applicant’s prior wages, including benefits or other compensation, satisfy minimum or maximum criteria; or by requesting or requiring an applicant to disclose prior wages or salary, either (i) as a condition of being interviewed, (ii) as a condition of continuing to be considered for an offer of employment, (iii) as a condition of an offer of employment or an offer of compensation, or (iv) as a condition of employment
- (2) Contractor shall not seek an applicant’s wage or salary history, including benefits or other compensation, from any current or former employer.

Contractor’s affidavit is included in Book 1 in the form titled “Affidavit Regarding Policy on Non-Disclosure of Salary History”.

If Contractor violates the above requirements, Contractor may be deemed ineligible to contract with the City; any contract, extension, or renewal thereof awarded in violation of the above requirements may be voidable at the option of the City. Provided, however, that upon a finding of a violation by Contractor, no contract shall be voided, terminated, or revoked without consideration by the Chief Procurement Officer of such action’s impact on the Contractor’s MBE or WBE subcontractors.

**AFFIDAVIT REGARDING POLICY ON NON-DISCLOSURE OF SALARY HISTORY
(SECTION 2-92-385)**

The policy prohibiting Contractor's screening of a job applicant's wage or salary history as described in Section 2-92-385 of the Municipal Code of Chicago ("MCC") is applicable to contracts paid from funds belonging to or administered by the City and contracts pursuant to which Contractor pays the City money in consideration for allowing Contractor to conduct business on City premises.

Contract title: _____
Specification #: _____

In accordance with requirements set forth in Section 2-92-385 of the MCC, Contractor hereby attests that Contractor has a policy that conforms to the following requirements:

- (1) Contractor shall not screen job applicants based on their wage or salary history, including by requiring that an applicant's prior wages, including benefits or other compensation, satisfy minimum or maximum criteria; or by requesting or requiring an applicant to disclose prior wages or salary, either (i) as a condition of being interviewed, (ii) as a condition of continuing to be considered for an offer of employment, (iii) as a condition of an offer of employment or an offer of compensation, or (iv) as a condition of employment
- (2) Contractor shall not seek an applicant's wage or salary history, including benefits or other compensation, from any current or former employer.

Contractor understands that it may be required to produce records to the CPO to verify the information provided. Under penalty of perjury the person signing below: (1) warrants that he/she is authorized to execute this Affidavit on behalf of Contractor, and (2) warrants that all certifications and statements contained in this Affidavit are true, accurate, and complete as of the date of execution.

Name of Contractor: _____
(Print or Type)

Signature of Authorized Officer: _____
(Signature)

Title of Signatory: _____
(Print or Type)

State of _____

County of _____

Signed and sworn (or affirmed) to before me on _____ (date) by

_____ (name/s of person/s making statement).

(Signature of Notary Public)

(Seal)



BID BOND

For use when bidding on City of Chicago projects. See instructions following.

PRINCIPAL (Legal name and business address)

State of incorporation or organization:

SURETY (Legal name and business address)

State of incorporation:

BID IDENTIFICATION

BID OPENING DATE:

SPECIFICATION NUMBER:

SPECIFICATION TITLE (AND PROJECT NUMBER IF AVAILABLE):

PENAL SUM OF BOND

____ %, _____ PERCENT OF BASE BID

Surety Bond No.:

Obligation:

We, the Principal and Surety, are firmly bound to the City of Chicago (hereinafter called the City) in the above penal sum. For payment of the penal sum, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally.

Conditions:

The Principal has submitted the bid identified above.

Therefore:

The above obligation is void if the City accepts the bid identified above and the Principal enters into a Contract with the City in accordance with the terms of such bid, executes such further contractual documents that may be required by the terms of the bid or contract documents, and gives such bond(s) as may be specified in the bidding or contract documents with surety acceptable to the City.

The Surety executing this instrument agrees that its obligation is not impaired by any extension(s) of the time for acceptance of the bid that the Principal may grant to the City. Notice to the surety of extension(s) is waived.

In the event the City brings suit upon this bond, Surety will pay reasonable attorney's fees and costs incurred by the City in such suit.

Witness:

The Principal and Surety executed this bid bond and affixed their seals on the below dates. The person signing below on behalf of the Principal warrants that he or she is authorized to execute this document on behalf of the Principal.

| | | |
|---|--|-----------------------|
| PRINCIPAL | | |
| PRINCIPAL NAME | | <i>Corporate Seal</i> |
| PRINCIPAL SIGNATURE | | |
| SIGNER'S NAME & TITLE | | |
| DATE | | |
| SURETY | | |
| SURETY NAME | | <i>Corporate Seal</i> |
| ATTORNEY-IN-FACT SIGNATURE | | |
| ATTORNEY-IN-FACT NAME | | |
| DATE | | |
| NOTARY | | |
| STATE OF _____, COUNTY OF _____ | | |
| I, _____, a Notary Public in the County and State aforesaid, do hereby certify that | | |
| _____ of the | | |
| _____ who is personally known to be the same person whose name he/she | | |
| subscribed in the foregoing instrument as such Attorney-in-Fact, appeared before me this day in person and acknowledged | | |
| that he/she signed, sealed, and delivered the said instrument of writing as his/her free and voluntary act, and as the free and | | |
| voluntary act of the said _____ for the uses and purposes therein set forth, and caused the | | |
| corporate seal of said company to be thereto attached. | | |
| GIVEN UNDER MY HAND AND NOTARIAL SEAL THIS _____ DAY OF _____, 20 _____ | | |
| _____ NOTARY PUBLIC | | |
| <i>Notary Seal</i> | | |

The signature of the Surety's attorney-in-fact must be notarized, and an original power of attorney granting him or her authority to sign this document must be attached to this document.

INSTRUCTIONS FOR CITY OF CHICAGO BID BOND FORM
Bidders/Proposers: Give these instructions to your surety.

- 1. The Bond must be on the City's form. No substitutions will be acceptable.**
- 2.** Copies of the form are acceptable. However, copies of the Bond must be double sided, with page 1 on one side of the paper, and page 2 on the opposite side of the paper.
- 3.** The amount of the Bond must be that stated in the Legal Advertisement. Unless otherwise specified, the amount of the bond should be expressed as a percentage of the bid amount.
- 4.** All blank spaces to be filled in must be completed using a typewriter or legible hand printing unless otherwise indicated. Determinations of legibility will be in the sole discretion of the Chief Procurement Officer. Photocopied insertions will not be accepted, nor will any Bond form on which there is any evidence of correction fluid ("white-out").
- 5.** Insert the full legal name and business address of the Principal in the space designated "Principal" on the face of the form. If the Bidder/ Proposer is bidding under an assumed name ("d/b/a") the assumed name must be separately stated in the same space as the full legal name for identification purposes.
- 6.** The address of the Principal must be complete. If a different mailing address should be used, it should be included as well, as bonds to be returned will be mailed to address shown on the bond.
- 7.** The Bond must include the Surety's name, the state in which the Surety was incorporated, and the Surety's address.
- 8.** The Specification number must appear on the Bond.
- 9.** The Surety executing the bond must appear on the Department of the Treasury's list of approved sureties (available at <http://www.fms.treas.gov/c570/c570.html>) and must act within the limitations listed therein.
- 10.** The names and titles of the people signing the bond must be given in the spaces provided.
- 11.** Corporations executing the bond shall affix their corporate seals if required. If a seal is not required, please indicate "seal not required" in the space where the seal would otherwise be affixed.
- 12.** A person authorized to bind the Bidder/Proposer as the Principal must sign the bond.
- 13.** The Bond must be signed by an attorney-in-fact of the Surety company. An original Power of Attorney that identifies the surety company's signatory as an attorney-in-fact must be attached.
- 14.** The date on which the Surety's Power of Attorney was certified should be the same or later than the date on which the bond was signed by the Surety.
- 15.** In its application to negotiated contracts, the terms "bid" and "bidder" shall include "proposal" and "offeror."

***RIDER ATTACHED
CONTRACTORS PERFORMANCE & PAYMENT BOND**

Know All Men By these Presents, That we,

Principal, hereinafter referred to as Contractor, and

,Surety

of the County of Cook and State of Illinois, are held and firmly bound unto the CITY OF CHICAGO in the penal sum of _____ lawful money of the United States, for the payment of which sum of money, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated this _____ day of _____ A.D., 20____

The Condition of the Above Obligation is such,

That whereas the above bounden Contractor has entered into a certain contract with the CITY OF CHICAGO, bearing contract No. _____ And Specification No. _____ all in conformity with said contract, for,

S P E C I M E N

The said contract is incorporated herein reference in its entirety, including without limitation, any and all indemnification provisions.

*The attached rider is incorporated herein by reference.

Now, if the said Contractor shall in all respects well and truly keep and perform the said contract on its part, in accordance with the terms and provisions of all of the Contract Documents comprising said contract, and in the time and manner therein prescribed, and further shall save, indemnify and keep harmless the City of Chicago against all loss, damages, claims, liabilities, judgments, cost and expenses which may in anywise accrue against said City of Chicago, in consequence of the granting of said contract, or which may in anywise result therefrom, or which may result from strict liability, or which may in anywise result from any injuries to, or death of, any person or damage to real or personal property, arising directly or indirectly from or in connection with, work performed or to be performed under said contract by said Contractor, its Agents, Employees or Workmen, assignees, subcontractors, or anyone else, in any respect whatever, or which may result on account of any infringement of any patent by reason of the materials, machinery, devices or apparatus used in the performance of said contract, and moreover, shall pay to said City any sum or sums of money determined by the Chief Procurement Officer, and /or by a court of competent jurisdiction, to be due said City by reason of any failure or neglect in the performance of the requirements of said contract, wherefore the Chief Procurement Officer shall have elected to suspend or cancel the same, and shall pay all claims and demands whatsoever, which may accrue to each materialman and subcontractor, and to each and every person who shall be employed by the said Contractor or by its assignees and subcontractors, in or about the performance of said contract, and with wages paid at prevailing wage rates if so required by said contract, and shall insure its ability to pay the compensation, and shall pay all claims and demands for compensation which may accrue to each and every person who shall be employed by them or any of them in or about the performance of said contract, or which shall accrue to the beneficiaries or dependents of any such person, under the provisions of the Workers' Compensation Act, 820 ILCS 305, as amended, and the Workers' Occupational Disease Act 820 ILCS 310, as amended (hereinafter referred to as "Acts") then is this obligation to be null and void, otherwise to remain in full force and effect.

And it is hereby expressly understood and agreed, and made a condition hereof, that any judgment rendered against said City in any suit based upon any loss, damages, claims, liabilities, judgments, cost or expenses which may in anywise accrue against said City as a consequence of the granting of said contract, or which may in anywise result therefrom, or which in anywise result from any injuries to, or death of any person, or damage to any real or personal property, arising or indirectly from, or in connection with, work performed, or to be performed under said contract by said Contractor or its agents, employees or workmen, assignees, subcontractors, or anyone else and also any decision of the Industrial Commission of the State of Illinois, and any order of court based upon such decision, or judgment thereon, render against said City of Chicago in any suit or claim arising under the aforementioned Acts when notice of the pendency or arbitration proceedings or suit shall have given said Contractor, shall be conclusive against each and all parties to this obligation, as to amount, liability and all other things pertaining thereto.

CONTRACTORS PERFORMANCE & PAYMENT BOND

Every person furnishing material or performing labor in the performance of said contract, either as an individual, as subcontractor, or otherwise, shall have the right to sue on this bond in the name of the City of Chicago, for his use and benefit, and in such suit said person, as plaintiff, shall file a copy of this bond, certified by the party or parties in whose charge this bond shall be, which copy shall be, unless execution thereof be denied under oath, prima facie evidence of the execution and delivery of the original; provided that nothing in this bond contained shall be taken to make the City of Chicago liable to any subcontractor, materialman, laborer or to any other person to any greater extent than it would have been liable prior to the enactment of the Public Construction Bond Act, 30 ILCS 550, as amended; provided further, that any person having a claim for labor and materials furnished in the performance of this contract shall have no right of action unless he shall have filed a verified notice of such claim with the Clerk of the City of Chicago within 180 days after the date of the last item of work or the furnishing of the last item of materials, and shall have furnished a copy of such verified notice to the contractor within 10 days of the filing of the notice with the City of Chicago. Such claim shall be verified and shall contain the name and address of the claimant, the business address of the claimant within the State of Illinois, if any, or if the claimant be a foreign corporation having no place of business with the State the principal place of business of said corporation, and in all cases of partnership the names and residences of each of the partners, the name of the contractor for the City of Chicago, the name of the person, firm or corporation by whom the claimant was employed or to whom such claimant furnished materials, the amount of the claim and a brief description of the public improvement for the construction or installation of which the contract is to be performed. Provided, further, that no defect in the notice herein provided for shall deprive the claimant of his right of action under the terms and provisions of this bond unless it shall affirmatively appear that such defect has prejudiced the rights of an interested party asserting the same; provided, further that no action shall be brought until the expiration of one hundred twenty (120) days after the date of the last item of work or of the furnishing of the last item of material, except in cases where the final settlement between the City of Chicago and the Contractor shall have been made prior to the expiration of the 120 day period in which case action may be taken immediately following such final settlement, and provided, further, that no action of any kind shall be brought later than six (6) months after the acceptance by the City of Chicago of the completion of work. Any suit upon this bond shall be brought only in a circuit court of the State of Illinois in the judicial district in which the contract shall have been performed.

The said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of any of the Contract Documents comprising said contract, or to the work to be performed thereunder, shall in anywise affect the obligations on this bond, and it does hereby waive notice of any change, extension of time, alteration or addition to the terms of said Contract Documents or to the work.

Approved _____, 20____ (Seal)

Chief Procurement Officer (Seal)

(Seal)

(Seal)

Approved as to form and legality: _____ (Seal)

Assistant Corporation Counsel (Seal)

(REV. 6/30/2000)

CONTRACTORS PERFORMANCE & PAYMENT BOND

**RIDER TO CONTRACTOR'S
PERFORMANCE AND PAYMENT BOND**

This Rider supplements Contractor's Performance and Payment Bond ("Bond") on that certain Contract with the City of Chicago ("City") bearing Contract No. _____ and Specification No. _____ ("Contract"). Surety acknowledges that the Contract requires Contractor to obtain from each of its subcontractors consent to a collateral assignment of their contracts with Contractor to the City. The Contract further grants the City the right, upon Contractor's default for failure to comply with Chapter 4-36 of the Municipal Code of the City, and at the City's sole option, to take over and complete the work to be performed by Contractor through the City's assumption of some or all of Contractor's subcontracts. If the City, in its sole discretion, exercises this right, then Surety waives any rights it may have to cure Contractor's default by performing the work itself or through others and remains bound by its other obligations under the Bond.

SCHEDULE AP: Letter of Intent to Hire/Sponsor Union

Apprentices

Project Name: _____

Specification No.: _____

I, _____ owner/president of _____ identify the following individuals to participate on the above referenced contract as union sponsored apprentices and/or certified workers.

| |
|---------------------------|
| Name: |
| Street Address: |
| City, State and Zip Code: |
| Phone Number: |
| Email Address: |

Please circle one: Union Sponsored Apprentice Certified Worker

| |
|---------------------------|
| Name: |
| Street Address: |
| City, State and Zip Code: |
| Phone Number: |
| Email Address: |

Please circle one: Union Sponsored Apprentice Certified Worker

| |
|---------------------------|
| Name: |
| Street Address: |
| City, State and Zip Code: |
| Phone Number: |
| Email Address: |

Please circle one: Union Sponsored Apprentice Certified Worker

| |
|---------------------------|
| Name: |
| Street Address: |
| City, State and Zip Code: |
| Phone Number: |
| Email Address: |

Please circle one: Union Sponsored Apprentice Certified Worker

| |
|---------------------------|
| Name: |
| Street Address: |
| City, State and Zip Code: |
| Phone Number: |
| Email Address: |

Please circle one: Union Sponsored Apprentice Certified Worker

The individuals identified as Union Sponsored Apprentices will be requested from the following Union Halls.

| Name of Union Hall | Address | Name of Contact Person | Phone Number |
|--------------------|---------|------------------------|--------------|
| | | | |
| | | | |
| | | | |
| | | | |

Signature of Owner/President

Title

Phone Number

Date

DPS Version 04/25/2017

ILLINOIS DEPARTMENT OF LABOR PREVAILING WAGE RATES

For updates see website at

<http://www.state.il.us/agency/idol/rates/rates.HTM>

Prevailing Wage Rates

| Effective Date | County | Trade Title | Region | Type | Class | Base Wage | Foreman Wage | OT M-F | OT Sa | OT Su | OT Hol | H/W | Pension | Vacation | Training | Fringe Benefit | Other |
|----------------|--------|----------------------|--------|------|-------|-----------|--------------|--------|-------|-------|--------|-------|---------|----------|----------|----------------|-------|
| 10/26/2018 | Cook | ASBESTOS ABT-GEN | All | ALL | | 42.72 | 43.72 | 1.5 | 1.5 | 2 | 2 | 14.9 | 12.57 | 0 | 0.72 | 0 | 0 |
| 11/5/2018 | Cook | ASBESTOS ABT-MEC | All | BLD | | 37.88 | 40.38 | 1.5 | 1.5 | 2 | 2 | 12.92 | 11.82 | 0 | 0.72 | 0 | 0 |
| 8/15/2018 | Cook | BOILERMAKER | All | BLD | | 49.46 | 53.91 | 1.5 | 1.5 | 2 | 2 | 6.97 | 20.4 | 0 | 1.6 | 0 | 0 |
| 11/16/2018 | Cook | BRICK MASON | All | BLD | | 46.19 | 50.81 | 1.5 | 1.5 | 2 | 2 | 10.65 | 17.92 | 0 | 0.92 | 0 | 0 |
| 8/15/2018 | Cook | CARPENTER | All | ALL | | 47.35 | 49.35 | 1.5 | 1.5 | 2 | 2 | 11.79 | 20.41 | 0 | 0.63 | 0 | 0 |
| 8/15/2018 | Cook | CEMENT MASON | All | ALL | | 45.25 | 47.25 | 2 | 1.5 | 2 | 2 | 14.25 | 17.03 | 0 | 1.1 | 1.36 | 0 |
| 11/16/2018 | Cook | CERAMIC TILE FNSHER | All | BLD | | 39.56 | 39.56 | 1.5 | 1.5 | 2 | 2 | 10.75 | 12.02 | 0 | 0.77 | 0 | 0 |
| 8/15/2018 | Cook | COMM. ELECT. | All | BLD | | 43.96 | 46.76 | 1.5 | 1.5 | 2 | 2 | 9.85 | 13.26 | 1.25 | 0.85 | 0 | 0 |
| 8/15/2018 | Cook | ELECTRIC PWR EQMT OP | All | ALL | | 51.9 | 56.9 | 1.5 | 1.5 | 2 | 2 | 12.04 | 17.18 | 0 | 3.23 | 0 | 0 |
| 10/26/2018 | Cook | ELECTRIC PWR GRNDMAN | All | ALL | | 40.48 | 56.9 | 1.5 | 1.5 | 2 | 2 | 9.39 | 13.4 | 0 | 2.51 | 0 | 0 |
| 11/16/2018 | Cook | ELECTRIC PWR LINEMAN | All | ALL | | 51.9 | 56.9 | 1.5 | 1.5 | 2 | 2 | 12.04 | 17.18 | 0 | 3.23 | 0.12 | 0 |
| 8/15/2018 | Cook | ELECTRICIAN | All | ALL | | 48.35 | 51.35 | 1.5 | 1.5 | 2 | 2 | 15.13 | 16.52 | 1.25 | 1.28 | 0 | 0 |
| 8/15/2018 | Cook | ELEVATOR CONSTRUCTOR | All | BLD | | 54.85 | | 2 | 2 | 2 | 2 | 15.43 | 16.61 | 4.39 | 0.61 | 0 | 0 |
| 8/15/2018 | Cook | FENCE ERECTOR | All | ALL | | 40.88 | 42.88 | 1.5 | 1.5 | 2 | 1.5 | 13.59 | 14.76 | 0 | 0.65 | 0 | 0 |
| 8/15/2018 | Cook | GLAZIER | All | BLD | | 43.85 | 45.35 | 1.5 | 2 | 2 | 2 | 14.37 | 21.11 | 0 | 0.94 | 0 | 0 |
| 8/15/2018 | Cook | HT/FROST INSULATOR | All | BLD | | 50.5 | 53 | 1.5 | 1.5 | 2 | 2 | 12.92 | 13.16 | 0 | 0.87 | 0 | 0 |
| 8/15/2018 | Cook | IRON WORKER | All | ALL | | 48.33 | 51.83 | 2 | 2 | 2 | 2 | 14.15 | 23.28 | 0 | 0.35 | 0 | 0 |
| 11/30/2018 | Cook | LABORER | All | ALL | | 42.72 | 43.47 | 1.5 | 1.5 | 2 | 2 | 14.9 | 12.57 | 0 | 0.72 | 0 | 0 |
| 8/15/2018 | Cook | LATHER | All | ALL | | 47.35 | 49.35 | 1.5 | 1.5 | 2 | 2 | 11.79 | 20.41 | 0 | 0.63 | 0 | 0 |
| 8/15/2018 | Cook | MACHINIST | All | BLD | | 48.38 | 50.88 | 1.5 | 1.5 | 2 | 2 | 7.23 | 8.95 | 1.85 | 1.32 | 0 | 0 |
| 8/15/2018 | Cook | MARBLE FINISHERS | All | ALL | | 34.65 | 47.7 | 1.5 | 1.5 | 2 | 2 | 10.65 | 16.46 | 0 | 0.49 | 0 | 0 |
| 8/15/2018 | Cook | MARBLE MASON | All | BLD | | 45.43 | 49.97 | 1.5 | 1.5 | 2 | 2 | 10.65 | 17.39 | 0 | 0.61 | 0 | 0 |
| 11/23/2018 | Cook | MATERIAL TESTER I | All | ALL | | 32.72 | 32.72 | 1.5 | 1.5 | 2 | 2 | 14.9 | 12.57 | 0 | 0.72 | 0 | 0 |
| 8/15/2018 | Cook | MATERIALS TESTER II | All | ALL | | 40.37 | | 1.5 | 1.5 | 2 | 2 | 18.55 | 8.85 | 0 | 1.1 | 1.5 | 0 |
| 8/15/2018 | Cook | MILLWRIGHT | All | ALL | | 46.35 | 48.35 | 1.5 | 1.5 | 2 | 2 | 13.05 | 18.87 | 0 | 0 | 0 | 0 |
| 11/9/2018 | Cook | OPERATING ENGINEER | All | BLD | 1 | 51.1 | 55.1 | 2 | 2 | 2 | 2 | 19.65 | 15.1 | 2 | 1.4 | 0 | 0 |
| 10/26/2018 | Cook | OPERATING ENGINEER | All | BLD | 2 | 49.8 | 55.1 | 2 | 2 | 2 | 2 | 19.65 | 15.1 | 2 | 1.4 | 0 | 0 |
| 10/26/2018 | Cook | OPERATING ENGINEER | All | BLD | 3 | 47.25 | 55.1 | 2 | 2 | 2 | 2 | 19.65 | 15.1 | 2 | 1.4 | 0 | 0 |
| 10/26/2018 | Cook | OPERATING ENGINEER | All | BLD | 4 | 45.5 | 55.1 | 2 | 2 | 2 | 2 | 19.65 | 15.1 | 2 | 1.4 | 0 | 0 |
| 8/15/2018 | Cook | OPERATING ENGINEER | All | BLD | 5 | 54.85 | 55.1 | 2 | 2 | 2 | 2 | 19.65 | 15.1 | 2 | 1.4 | 0 | 0 |
| 8/15/2018 | Cook | OPERATING ENGINEER | All | BLD | 6 | 53.1 | | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 36.45 | 0 |
| 8/15/2018 | Cook | OPERATING ENGINEER | All | BLD | 7 | 54.1 | 55.1 | 2 | 2 | 2 | 2 | 19.65 | 15.1 | 2 | 1.4 | 0 | 0 |
| 8/15/2018 | Cook | OPERATING ENGINEER | All | FLT | 1 | 57.05 | 57.05 | 1.5 | 1.5 | 2 | 2 | 18.8 | 14.35 | 2 | 1.3 | 0 | 0 |
| 8/15/2018 | Cook | OPERATING ENGINEER | All | FLT | 2 | 55.55 | 57.05 | 1.5 | 1.5 | 2 | 2 | 18.8 | 14.35 | 2 | 1.3 | 0 | 0 |
| 8/15/2018 | Cook | OPERATING ENGINEER | All | FLT | 3 | 49.45 | 57.05 | 1.5 | 1.5 | 2 | 2 | 18.8 | 14.35 | 2 | 1.3 | 0 | 0 |
| 8/15/2018 | Cook | OPERATING ENGINEER | All | FLT | 4 | 41.1 | 57.05 | 1.5 | 1.5 | 2 | 2 | 18.8 | 14.35 | 2 | 1.3 | 0 | 0 |
| 8/15/2018 | Cook | OPERATING ENGINEER | All | FLT | 5 | 58.55 | 57.05 | 1.5 | 1.5 | 2 | 2 | 18.8 | 14.35 | 2 | 1.3 | 0 | 0 |
| 8/15/2018 | Cook | OPERATING ENGINEER | All | FLT | 6 | 38 | 57.05 | 1.5 | 1.5 | 2 | 2 | 18.8 | 14.35 | 2 | 1.3 | 0 | 0 |
| 11/5/2018 | Cook | OPERATING ENGINEER | All | HWY | 1 | 49.3 | 53.3 | 1.5 | 1.5 | 2 | 2 | 19.65 | 15.1 | 2 | 1.4 | 1.13 | 0 |
| 11/9/2018 | Cook | OPERATING ENGINEER | All | HWY | 2 | 48.75 | 53.3 | 1.5 | 1.5 | 2 | 2 | 19.65 | 15.1 | 2 | 1.4 | 0 | 0 |
| 10/26/2018 | Cook | OPERATING ENGINEER | All | HWY | 3 | 46.7 | 53.3 | 1.5 | 1.5 | 2 | 2 | 19.65 | 15.1 | 2 | 1.4 | 0 | 0 |
| 8/15/2018 | Cook | OPERATING ENGINEER | All | HWY | 4 | 51.2 | | 1.5 | 1.5 | 2 | 2 | 18 | 21.28 | 1.5 | 0.15 | 0 | 0 |
| 10/26/2018 | Cook | OPERATING ENGINEER | All | HWY | 5 | 44.1 | 53.3 | 1.5 | 1.5 | 2 | 2 | 19.65 | 15.1 | 2 | 1.4 | 0 | 0 |
| 11/9/2018 | Cook | OPERATING ENGINEER | All | HWY | 6 | 52.3 | 53.3 | 1.5 | 1.5 | 2 | 2 | 19.65 | 15.1 | 2 | 1.4 | 0 | 0 |
| 11/9/2018 | Cook | OPERATING ENGINEER | All | HWY | 7 | 50.3 | 53.3 | 1.5 | 1.5 | 2 | 2 | 19.65 | 15.1 | 2 | 1.4 | 0 | 0 |
| 8/15/2018 | Cook | ORNAMNTL IRON WORKER | All | ALL | | 48.05 | 50.55 | 2 | 2 | 2 | 2 | 14.09 | 20.59 | 0 | 1.25 | 0.38 | 0 |
| 11/16/2018 | Cook | PAINTER | All | ALL | | 46.55 | 52.36 | 1.5 | 1.5 | 1.5 | 2 | 11.81 | 11.94 | 0 | 1.87 | 0 | 0 |
| 8/15/2018 | Cook | PAINTER SIGNS | All | BLD | | 39.24 | 0 | 1.5 | 1.5 | 1.5 | 2 | 2.6 | 3.18 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | | | | | |
|------------|------|---------------------|-----|-----|-------|-------|-----|-----|---|---|-------|-------|---|------|------|
| 8/15/2018 | Cook | PILEDRIVER | All | ALL | 47.35 | 49.35 | 1.5 | 1.5 | 2 | 2 | 11.79 | 20.41 | 0 | 0.63 | 0 |
| 11/16/2018 | Cook | PIPEFITTER | All | BLD | 48.5 | 51.5 | 1.5 | 1.5 | 2 | 2 | 10.05 | 18.85 | 0 | 2.54 | 0 |
| 8/15/2018 | Cook | PLASTERER | All | BLD | 43.25 | 45.85 | 1.5 | 1.5 | 2 | 2 | 14.25 | 16.69 | 0 | 1.35 | 0 |
| 10/26/2018 | Cook | PLUMBER | All | BLD | 50.25 | 53.25 | 1.5 | 1.5 | 2 | 2 | 14.34 | 14.42 | 0 | 1.31 | 0 |
| 8/15/2018 | Cook | ROOFER | All | BLD | 43.65 | 47.65 | 1.5 | 1.5 | 2 | 2 | 9.73 | 12.44 | 0 | 0.53 | 0 |
| 8/15/2018 | Cook | SHEETMETAL WORKER | All | BLD | 44.25 | 47.79 | 1.5 | 1.5 | 2 | 2 | 11.35 | 24.68 | 0 | 1.68 | 0 |
| 8/15/2018 | Cook | SIGN HANGER | All | BLD | 31.31 | | 1.5 | 1.5 | 2 | 2 | 4.85 | 3.28 | 0 | 0 | 0 |
| 8/15/2018 | Cook | SPRINKLER FITTER | All | BLD | 48.1 | 50.6 | 1.5 | 1.5 | 2 | 2 | 13.25 | 15.9 | 0 | 0.68 | 0 |
| 8/15/2018 | Cook | STEEL ERECTOR | All | ALL | 42.07 | 44.07 | 2 | 2 | 2 | 2 | 13.45 | 19.59 | 0 | 0.35 | 0 |
| 8/15/2018 | Cook | STONE MASON | All | BLD | 46.19 | 50.81 | 1.5 | 1.5 | 2 | 2 | 10.65 | 17.92 | 0 | 0.92 | 0 |
| 11/16/2018 | Cook | TERRAZZO FINISHER | All | BLD | 41.54 | 44.54 | 1.5 | 1.5 | 2 | 2 | 10.75 | 13.71 | 0 | 0.86 | 0 |
| 12/14/2018 | Cook | TERRAZZO MASON | All | BLD | 45.38 | 48.88 | 1.5 | 1.5 | 2 | 2 | 10.75 | 15.17 | 0 | 0.89 | 0 |
| 11/16/2018 | Cook | TILE MASON | All | BLD | 46.49 | 50.49 | 1.5 | 1.5 | 2 | 2 | 10.75 | 14.99 | 0 | 0.9 | 0 |
| 8/15/2018 | Cook | TRAFFIC SAFETY WRKR | All | HWY | 37 | 38.6 | 1.5 | 1.5 | 2 | 2 | 8.9 | 9.27 | 0 | 0.5 | 0 |
| 8/15/2018 | Cook | TRUCK DRIVER | E | ALL | 35.6 | | 1.5 | 1.5 | 2 | 2 | 8.6 | 10.61 | 1 | 0.15 | 1 |
| 8/15/2018 | Cook | TRUCK DRIVER | E | ALL | 36.7 | 37.1 | 1.5 | 1.5 | 2 | 2 | 9.68 | 13.25 | 0 | 0.15 | 0 |
| 8/15/2018 | Cook | TRUCK DRIVER | E | ALL | 36.9 | | 1.5 | 1.5 | 2 | 2 | 9.68 | 13.25 | 0 | 0.15 | 0 |
| 8/15/2018 | Cook | TRUCK DRIVER | E | ALL | 37.1 | | 1.5 | 1.5 | 2 | 2 | 9.68 | 13.25 | 0 | 0.15 | 0 |
| 8/15/2018 | Cook | TRUCK DRIVER | W | ALL | 37.69 | | 1.5 | 1.5 | 2 | 2 | 10.5 | 8.5 | 0 | 0.15 | 0 |
| 8/15/2018 | Cook | TRUCK DRIVER | W | ALL | 36.13 | | 1.5 | 1.5 | 2 | 2 | 18.85 | 8.85 | 0 | 2.6 | 0 |
| 8/15/2018 | Cook | TRUCK DRIVER | W | ALL | 40.34 | | 1.5 | 1.5 | 2 | 2 | 10.47 | 12.5 | 0 | 0.5 | 2.81 |
| 8/15/2018 | Cook | TRUCK DRIVER | W | ALL | 38.16 | | 1.5 | 1.5 | 2 | 2 | 8.9 | 11.16 | 0 | 0.5 | 0 |
| 10/26/2018 | Cook | TUCKPOINTER | All | BLD | 46 | 48 | 1.5 | 1.5 | 2 | 2 | 8.34 | 16.81 | 0 | 0.93 | 0 |

Legend

M-F OT Unless otherwise noted, OT pay is required for any hour greater than 8 worked each day, Mon through Fri. The number listed is the multiple of the base wage.

OSA Overtime pay required for every hour worked on Saturdays

OSH Overtime pay required for every hour worked on Sundays and Holidays

H/W Health/Welfare benefit

Explanations COOK COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

TRUCK DRIVERS (WEST) - That part of the county West of Barrington Road.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date. **ASBESTOS - MECHANICAL** - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarring equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS ELECTRICIAN

Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice sound vision production and reproduction, telephone and telephone interconnect, facsimile, data apparatus, coaxial, fibre optic and wireless equipment, appliances and systems used for the transmission and reception of signals of any nature, business, domestic, commercial, education, entertainment, and residential purposes, including but not limited to, communication and telephone, electronic and sound equipment, fibre optic and data communication systems, and the performance of any task directly related to such installation or service whether at new or existing sites, such tasks to include the placing of wire and cable and electrical power conduit or other raceway work within the equipment room and pulling wire and/or cable through conduit and the installation of any incidental conduit, such that the employees covered hereby can complete any job in full.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds; structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front

Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Sced; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines; ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types; Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with

Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

OPERATING ENGINEER - FLOATING

Class 1. Craft Foreman; Master Mechanic; Diver/Wet Tender; Engineer; Engineer (Hydraulic Dredge).

Class 2. Crane/Backhoe Operator; Boat Operator with towing endorsement; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender.

Class 3. Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs. or more); Tug/Launch Operator; Loader/Dozer and like equipment on Barge, Breakwater Wall, Slip/Dock, or Scow, Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks; Deck Hand, Tug Engineer, Crane Maintenance (50 Ton Capacity and Under) or Backhoe Weighing (115,000 pounds or less); Assistant Tug Operator.

Class 5. Friction or Lattice Boom Cranes.

Class 6. ROV Pilot, ROV Tender

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

TRAFFIC SAFETY

Work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - EAST & WEST

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turntrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turntrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

SECTION 6
CITY OF CHICAGO
MULTI-PROJECT LABOR AGREEMENT

CONTRACTORS PERFORMANCE & PAYMENT BOND

CITY OF CHICAGO
MULTI-PROJECT LABOR AGREEMENT

This Model Multi-Project Labor Agreement ("Agreement") is entered into by and between City of Chicago, an Illinois municipal corporation, as Owner, on behalf of itself and each of its contractors, subcontractors of whatsoever tier performing construction work on any project to which this Agreement shall be applicable, and each of the undersigned labor organizations signatory hereto.

Whereas, Owner is responsible for construction, demolition, rehabilitation, maintenance, and/or renovation of real property located in Chicago, Illinois; due to the size, scope, cost and duration of the multitude of Projects traditionally performed by the City of Chicago, the parties to this Agreement have determined that it is in their interest to have these Projects completed in the most timely, productive, economical and orderly manner possible, and without labor disruptions of any kind that might interfere with, or delay, any of these Projects;

Whereas, the parties have determined that it is desirable to eliminate the potential for friction and disruption of these Projects by using their best efforts and ensuring that all work is performed by the trade unions that are signatory hereto and which have traditionally performed and have trade and geographic jurisdiction over such work. Experience has proven the value of such cooperation, and that such mutual undertakings should be maintained, and if possible, strengthened, and that the ultimate beneficiaries remain the Owner of the project; and.

Whereas, the Owner acknowledges that it has a serious and ongoing concern regarding labor relations associated with the Projects and through its completion irrespective of the existence of a collective bargaining relationship with any of the signatory, labor organizations.

NOW THEREFORE, in order to further these goals and objectives and to maintain the spirit of harmony, labor-management cooperation and stability, the parties agree as follows:

1. During the term of this Agreement, Owner its representatives and agents shall not contract or subcontract, nor permit any other person, firm, company, or entity to contract or subcontract, any construction, Demolition, rehabilitation or renovation work for the Project work covered under this Agreement or within the trade jurisdiction of the signatory labor organization, to be performed at the Site of construction or off-site solely for installation at the Site (including all tenant improvements, if applicable), unless such work is performed only by a person, firm or company signatory, or willing to become signatory, to the applicable area-wide collective bargaining agreement(s) with the union(s) or the appropriate trade/craft: union(s) or subordinate body or affiliate of the Chicago & Cook County Building & Construction Trades Council ("Council") or the Teamsters' Joint, Council No. 25; Copies of all such current collective bargaining agreements constitute Appendix "A" of this Agreement, attached hereto and made an integral part hereof, and as may be modified from time to time during the term of this Agreement. Said provisions of this Agreement shall be included in all Requests for Bids and/or Proposals and shall be explicitly included in all contracts or subcontracts of whatsoever tier by all contractors and subcontractors; provided that the total Project value exceeds \$25,000.00. In no event shall contracts be "split" so as to avoid the applicability of this Agreement. In the event a dispute arises with respect to the applicability of this Multi-Project Labor Agreement to a particular project, the parties agree to submit said dispute to final and binding arbitration before a Permanent Umpire who shall be mutually agreed to by the parties.
2. With respect to a contractor or subcontractor who is the successful bidder, but is not signatory to the applicable collective bargaining agreement, the collective bargaining agreement(s) executed by said bidder shall be the relevant area-wide agreement(s) regulating or governing wages, hours and other terms and conditions of employment.

CONTRACTORS PERFORMANCE & PAYMENT BOND

3. During the term of this Agreement, the Owner or any Project contractor and sub-contractor shall engage in no lockout.
4. During' the term of this Agreement, no labor organization signatory hereto, or any of its members, officers, stewards, agents, representatives, or employees shall instigate, authorize, support, sanction, maintain, or participate in any strike, walkout, work stoppage, work slowdown, work curtailment, cessation or interruption of production, or in any picketing of any Site covered under this Agreement for any reason whatsoever, including but riot limited to the expiration of any of the collective bargaining agreements referred to on Appendix A. In the event of an economic strike or other mob action upon the termination of an existing collective bargaining 'agreement, in no event shall any adverse mob action be directed against any covered Project. All provisions of the subsequently negotiated collective bargaining agreement shall be retroactive for all employees working at a Project Site, provided such a provision for retroactivity is contained in the newly negotiated collective bargaining agreement.
5. Each Union signatory hereto agrees that it will use its best efforts to prevent any of the acts forbidden in Paragraph 4, and that in the event any such act takes place or is engaged in by any employee or group of employees, each Union signatory hereto further agrees that it will use its best efforts (including its full disciplinary power under its Constitution and/or By-Laws) to cause an immediate cessation thereof.
6. Any contractor of subcontractor signatory or otherwise bound stipulated or required to abide by and to any provisions of this Agreement shall have the right to discharge or discipline any employee who violates the provisions of this Agreement. Such discharge or discipline by a contractor or subcontractor shall be subject to the Grievance/Arbitration procedure of the applicable collective bargaining agreement only as to the fact of such employee's violation of this Agreement. If such fact is established, the penalty imposed shall not be disturbed. Work at any Site covered under this Agreement shall continue without disruption or hindrance of any kind during any Grievance Arbitration procedure.
7. The parties expressly authorize a court of competent jurisdiction to order appropriate injunctive relief to restrain any violation of this Agreement, any form of self-help remedy is expressly forbidden. Nothing in the foregoing shall restrict any party to otherwise judicially enforce any provision of its collective bargaining agreement between any labor organization and a contractor with whom it has a collective bargaining relationship.
8. This Agreement shall become effective, and shall be included in all Requests for Proposals and/or Bids, all Purchase Orders, Contracts or other arrangements issued by the City of Chicago for work described in Paragraph I above immediately subsequent to the ratification of the Ordinance authorizing this Multi-Project Labor Agreement by the City Council.
9. This Agreement shall expire on December 31, 2016 and shall be automatically extended for an additional five (5) year term unless the parties issue a notice to terminate between sixty (60) and (30) days prior to the initial expiration date.
10. In the event a dispute shall arise between any contractor or subcontractor of the Project and any signatory labor organization and/or fringe benefit fund established under any of the appropriate collective bargaining agreements as to the obligation and/or payment of fringe benefit contributions provided under the collective bargaining agreement, upon proper notice to the contractor(s) or subcontractor(s) by the applicable labor organization or fringe benefit fund and to the contractor or subcontractor, an amount sufficient to satisfy the amount claimed shall be withheld from the contractor's or subcontractor's regularly scheduled periodic payment from the contractor or subcontractor, or their agents until such time as said claim is resolved.
11. In the event of a jurisdictional dispute by and between any labor organizations signatory hereto, such labor organizations shall take all steps necessary to promptly resolve the dispute. In the event of a dispute relating to trade or work jurisdiction, ail parties, including, the employers,

CONTRACTORS PERFORMANCE & PAYMENT BOND

contractors or subcontractors agree that a final and binding resolution of the dispute shall be resolved as follows:

- a.) Representatives of the affected trades shall meet on the job site within forty-eight (48) hours after receiving notice in an effort to resolve the dispute. (In the event there is a dispute between local unions affiliated with the same International Union, the decision of the General President, or his/her designee, as the internal jurisdictional authority of that International Union, shall constitute a final and binding decision and determination as to the jurisdiction of work.)
- b.) If no settlement is achieved subsequent to the preceding Paragraph, the matter shall be referred to the Chicago & Cook County Building & Construction Trades Council" which shall meet with the affected trades within forty-eight (48) hours subsequent to receiving notice. An agreement reached at this Step shall be final and binding.
- c.) If no settlement agreement is reached during the proceedings contemplated by Paragraph "a" or "b" above the matter shall be immediately referred to the Joint Conference Board established by the Standard Agreement between the Construction Employers' Association and the Chicago & Cook County Building & Construction Trades Council, which may be amended from time to time, for final and binding resolution of said dispute. Said Standard Agreement is attached hereto as Appendix "B" and specifically incorporated into this Agreement.

12. This Agreement shall be incorporated into and become part of the collective bargaining agreements between the Unions signatory hereto and contractors and subcontractors. In the event of any inconsistency between this Agreement and any collective bargaining agreement, the terms of this Agreement shall supersede and prevail except for all work performed under the NT Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, all instrument calibration work and loop checking shall be performed under the terms of the UA/IBEW Joint National Agreement for instrument and Control Systems Technicians, and the National Agreement of the International Union of Elevator Constructors with the exception of the content and subject matter of Articles V, VI and VII of the AFL-CIO's Building & Construction Trades Department model Project Labor Agreement.

13. The parties agree that in the implementation and administration of this Agreement, it is vitally necessary to maintain effective and immediate communication so as to minimize the potential of labor relations disputes arising out of this Agreement. To that end, each party hereto agrees to designate, in writing, a representative to whom problems can be directed which may arise during the term of this Agreement. Within forty-eight (48) hours after notice of the existence of any problem, representatives of each party shall meet to discuss and, where possible, resolve such problems. The representative of the signatory unions shall be Thomas Villanova, or his designee, President of the Chicago & Cook County Building & Construction Trades Council. The representative of Owner shall be the Corporation Counselor his/her designee.

14. If any provision, section, subsection or other portion of this Agreement shall be determined by any court of competent jurisdiction to be invalid, illegal, or unenforceable in whole or in part, and such determination shall become final, such provision or portion shall be deemed to be severed or limited, but only to the extent required to render the remaining provisions and portions of this Agreement enforceable. This Agreement, as thus amended, shall be enforced so as to give effect to the intention of the parties insofar as that is possible. In addition, the parties hereby expressly empower a court of competent jurisdiction to modify any term or provision of this Agreement to the extent necessary to comply with existing law and to enforce this Agreement as modified.

15. Owner and General Contractor, on behalf of themselves and their contractors and subcontractors agree that the applicable substance abuse policy (i.e., drug, alcohol, etc.) applicable

CONTRACTORS PERFORMANCE & PAYMENT BOND

to the employees working on any covered Project shall be that as contained, or otherwise provided for, in the area-wide collective bargaining agreements attached at Appendix "A" to this Agreement. Nothing in the foregoing shall limit the Owners and/or General Contractor, its contractors or subcontractors from instituting its own substance abuse policy governing other employees performing work on a Project not otherwise covered under this Agreement. In the event there is no substance abuse policy in the applicable collective bargaining agreement, the policy adopted by the Owners and/or General Contractor may apply.

16. The parties recognize a desire to facilitate the entry into the building and construction trades of veterans who are interested in careers in the building and construction industry. The parties agree to utilize the services of the Center for Military Recruitment, Assessment and Veterans Employment (hereinafter referred to as the "Center") and the Center's Helmets to Hardhats" program to service as a resource for preliminary orientation, assessment of construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the parties. The parties also agree to coordinate with the Center to create and maintain an integrated database of veterans interested in working on this project and of apprenticeship and employment opportunities for these Projects. To the extent permitted by law, the parties will give appropriate credit to such veterans for bona fide, provable past experience, in the building and construction industry.

The parties recognize the importance of facilitating the goals and objectives of the Apprenticeship & Training Initiative agreed to by the parties in separate collective bargaining agreements applicable to employees of the Owner. Additionally, parties agree to incorporate the duties and responsibilities associated with the Supplemental Addendum to the Multi-Project Labor Agreement between the signatory labor organizations and the Chicago Public Schools attached hereto in Appendix "c" and incorporated herein. Towards these ends, the undersigned labor organizations will assist and cooperate with the Owner, the Chicago Public Schools, City Colleges and contractors in monitoring and enforcing the foregoing commitments, including providing relevant information requested by the Owner for the purpose of such monitoring and enforcement, including the information provided for in Paragraph 3(E) of the Supplemental Addendum with CPS. Upon execution of this Agreement, representatives of the Owner and the Chicago Building Trades Council will immediately meet for the purpose of establishing the specific mechanism by which this information will be gathered, processed and reported.

The parties hereto agree and acknowledge that the commitments set forth herein. Including those in the attached Appendix "C" are interdependent. In the event the goals and commitments set forth in Appendix "C" are not realized, the City shall bring this to the attention of the Chicago Building Trades Council ("Council"), and the parties shall immediately meet for the purpose of identifying the cause(s) of said failure and implement necessary measures to remedy the failure. Should the Council's affiliate members refuse to implement measures reasonably necessary to realize these goals and commitments, the City may terminate this Agreement subsequent to January 13, 2013. If, as of June 1, 2012, the City believes that the Council's affiliate members have failed to implement measures reasonably necessary to realize these goals and commitments, the City may at that time deliver to the Council formal written notice of intent to terminate this Agreement on January 1, 2013. Upon deliverance of such notice, the parties shall immediately meet to craft and implement additional measures to remedy such failure. If the parties are unsuccessful in implementing satisfactory measures, the City may implement said notice of termination on January 1, 2013.

The parties acknowledge the Residency requirement for employees of contractors and subcontractors in the standard City of Chicago construction contract. The parties also agree to cooperatively work and monitor compliance with these requirements and to work cooperatively to facilitate and work in good faith to the achievement of said required Residency provision including union attendance at pre-bid conferences with prospective contractors and subcontractors as well as other reasonable undertakings to demonstrate progress in this regard.

CONTRACTORS PERFORMANCE & PAYMENT BOND

17. The parties agree that contractors and subcontractors working under the provisions of this Agreement shall be required to strive to utilize the maximum number of apprentices on said Project as permitted under the applicable collective bargaining agreement as contained in Appendix "A".

18. This document, with each of the Attachments, constitutes the entire agreement of the parties and may not be modified or changed except by the subsequent written agreement." of the parties. .

19. All parties represent that they have the full legal authority to enter into this Agreement.

The undersigned, as the Owner and Labor Organizations on the Project, agree to all of the terms and conditions contained in this Agreement.

Dated this the _th day of _____, _____ in Chicago, Cook County, Illinois.

On behalf of Owner:

Corporation Counsel

Duly Authorized Officer of the City of Chicago

On behalf of _____
(Insert Name of Labor Organization)

Its Duly Authorized Officer

CONTRACTORS PERFORMANCE & PAYMENT BOND

Signatory Unions

| | |
|--|---|
| Boilermakers Local 1 | Sign, Display, Pictorial Artists and Allied Workers Local 830 |
| Bricklayers and Allied Crafts Local 21 | Plasters Local 5 |
| Ceramic Tile &Terrazzo | Plumbers Local 130 |
| Painters, Cleaners, Caulkers | |
| BAC Administrative Council #1 of IL | |
| Chicago Regional Council of Carpenters1 ¹ | United Union of Roofers, Waterproofers & Allied Workers Local #11 |
| Carpenters local Union #13 | |
| Cement Masons local 502 | Sheet Metal Workers Local 73 |
| IBEW, Local 134 | Sprinkler Fitters Local 281 |
| Elevator Constructors, Local 2 | Teamsters Local 731 |
| Operating Engineers, Local 150 | Glaziers Local 27 |
| Heat and Frost Insulators, Local 17 | |
| Iron Workers District Council of Chicago and Vicinity | |
| Architectural Iron Workers, Local 63 | |
| Bridge &Structural Iron Workers, Local 1 | |
| Machinery Movers, Riggers & Machinery Erectors, Local 136 | |
| Construction & General laborers' District Council of Chicago and Vicinity ² | |
| Machinists, Local 126 | |
| Painters' District Council No. 14 | |

¹ Carpenters Local include: locals 1, 10, 13, 54, 58, 62, 74 (lathers), 80, 141, 181, 2n, 434, 578, 839, 1027, 1185, 1307, 1539, 1693 (Millwrights) - City of Chicago Local in Bold.

² Laborers Locals include: Locals One, 2, 4, 5, 6, 25, 76, 118, 225, 269, 1001, 1092 (City of Chicago Locals in Bold).

For appendices, please see website, as provided in the Agreement

**CITY OF CHICAGO DEPARTMENT OF AVIATION
Recirculation Bridge Replacement**

**PART TWO OF THREE
GENERAL CONDITIONS**

SPECIFICATION NO.: 800480

PROJECT NO.: H3073.18-00



**CITY OF CHICAGO
Rahm Emanuel
Mayor**



**DEPARTMENT OF AVIATION
Jamie L. Rhee
Commissioner**

Issued by:

**DEPARTMENT OF PROCUREMENT SERVICES
Shannon E. Andrews
Chief Procurement Officer**

**FEBRUARY 21, 2019
ISSUED FOR BID**

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**CITY OF CHICAGO
CHICAGO DEPARTMENT OF AVIATION
GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION**

I. GENERAL PROVISIONS

A. Definitions.

"Affiliate" of a person or entity means a person or entity that directly or indirectly through one or more intermediaries or third parties, controls or is controlled by, or is under common control with, the person or entity. A person or entity shall be deemed to be controlled by another person or entity if it is controlled in any manner whatsoever that results in control in fact by that other person or entity (either acting individually or acting jointly or in concert with others) whether directly or indirectly and whether through shared ownership, a trust, a contract or otherwise. Indicia of control may include, without limitation: interlocking management or ownership; identity of interests among family members; shared facilities and equipment; common use of employees; or reorganization of a business entity following a determination of City contracting ineligibility using substantially the same management, employees, ownership or principals. In determining whether persons or entities are Affiliates, the City shall consider all appropriate factors, including but not limited to common ownership, common management and contractual relationships.

"Airport" means Chicago O'Hare International Airport or Chicago Midway International Airport together with any additions thereto, improvements, or enlargements thereof, now or hereafter made, except any land rights-of-way or improvements which are now or may hereafter be owned by or are part of the transportation system operated by the Chicago Transit Authority, or any successor thereto, wherever located within the boundaries of the Airport.

"Airport Operations" means 1) the movement of passengers, vehicles and freight into, on and out of the airport, and 2) aircraft operations into, on and out of the airport and all support services needed to operate aircraft including but not limited to, fueling, repairing, baggage services and food services.

"Airside" or "Airfield" means, generally, those areas of an Airport beyond the terminals, buildings, and gates where aircraft operate. Airside includes Aircraft Operations Area (AOA), such as runways, taxiways and other areas of the Airport that are used for taxiing, hovering, take-off and landing of Aircraft, including entry and exit from Aircraft loading ramps and parking areas and areas not necessarily under the control of the Air Traffic Control Tower.

"Award" means the date that the contract is released by the Department of Procurement Services.

"Baseline Schedule" means a schedule prepared to illustrate a planned method of performing a group of inter-related tasks. The baseline schedule is the Contractor's plan to perform the work identified by the Contract Documents with the time established by the Contract Documents, formatted in the Critical Path Method and approved by the Commissioner in accordance with Article VIII.

"Beneficial Occupancy" means the date or decision for use of the project or portion thereof for the purpose intended whereby the Owner/Tenant may occupy or use the building or area even while contract work is on-going.

"Business Days" means business days according to the City of Chicago Calendar.

"CDA" means the Chicago Department of Aviation.

"Calendar Day" means every day shown on the calendar including Saturdays, Sundays and holidays.

"CIP" means the Capital Improvement Program of the Chicago Airport System for the City of Chicago.

"Chicago O'Hare International Airport Design and Construction Standards" means, collectively, those documents which have been or may be issued from time to time by the City containing design and construction standards for new construction at the Airport.

"Chief Procurement Officer" means the Chief Executive of the Department of Procurement Services for the City of Chicago, and any representative duly authorized in writing to act on the Chief Procurement Officer's behalf.

"City" means the City of Chicago, a municipal corporation and home-rule government under sections 1 and 6(a), Article VII, respectively, of the 1970 Constitution of the State of Illinois.

"Commissioner of Aviation", or "Commissioner", means the Chief Executive of the Chicago Department of Aviation for the City of Chicago and any representative duly authorized in writing to act on the Commissioner's behalf.

"Comptroller" means the Chief Executive of the Department of Finance for the City of Chicago and any representative duly authorized in writing to act on the Comptroller's behalf.

"Construction Manager" means the entity(ies) that the City has retained to provide construction management services for projects at the City's Airports.

"Contract" or "Agreement" means this Contract for Construction, including all exhibits attached hereto and/or incorporated by reference herein, and all amendments, modifications, or revisions made from time to time in accordance with the terms hereof.

"Contract Documents" means all of the documents comprising this Contract, including: Part One, The Requirements for Bidders and Proposal Documents; Part Two, The General Conditions; Part Three, the Technical Specifications, and the Contract Drawings.

"Contract Completion Date" is the date, determined by the number of Calendar Days (set forth in Part One of the Contract Documents) following issuance of a Notice-to-Proceed by which the Contractor must achieve Substantial Completion of the Project. Part One may also set forth Calendar Days for Substantial Completion of phases or milestones. The Contract Completion Date and/or completion dates for phases and milestones, if any may be adjusted by Contract Modification.

"Contract Modification" is a document signed by the Contractor and City, (or the City alone under certain circumstances stated in the Contract Documents) that adjusts the scope of Work, the Contractor's compensation, the Contract Completion Date, or the time allowed by the Contract for completion of any phase or milestone.

"Contract Price" is the total compensation to be paid to the Contractor for the Work by the City as may be amended from time to time by Contract Modifications.

"Contractor's Warranty" means the Contractor's representation as to the character and quality of the Work in accordance with the terms and conditions of the Contract Documents, and the Contractor's promise to repair and replace the Work not in conformance with such representations. Without limiting the scope or duration of any Manufacturer's Warranty provided for specific parts of the Work, all Work furnished under this Contract is guaranteed by Contractor against defective materials and workmanship, improper installation or performance, and non-compliance with the Contract documents as prescribed by law.

"Contractor" refers to the person or entity that is awarded the Contract.

"Days" (whether or not capitalized) means calendar days, unless otherwise stated.

"Daytime Work" means work performed between the hours of 6:00 AM and 6:00 PM, unless otherwise defined in the plans.

"Environmental Laws" means all applicable Federal, State, and local laws, ordinances, rules, regulations, executive orders, and any other applicable directives pertaining to environmental or health matters.

"FAA" means the Federal Aviation Administration created under the Federal Aviation Act of 1958, as amended, or any successor agency thereto.

"Field Order" means a written order to the Contractor signed by the Construction Manager (with the prior written approval of the Commissioner and the Chief Procurement Officer) unilaterally directing changes in the Work and/or in the Contract time.

"Final Completion of the Project" means the last date on which all of the following events have occurred: the Commissioner has determined that all Punch List Work and any other remaining Work has been completed in accordance with the Contract Documents; final inspections have been completed and operations systems and equipment testing have been completed; final occupancy certifications have been issued; all Project Record Documents have been provided to the Commissioner.

"Hazardous Materials" means friable asbestos or asbestos containing materials, polychlorinated biphenyls (PCBs), petroleum products, natural gas, source material, special nuclear materials, and by-product materials regulated under the Atomic Energy Act (42 U.S.C. Sec. 2011, et seq.), pesticides regulated under the Federal Insecticide Fungicide and Rodenticide Act (7 U.S.C. Sec 136, et seq.), and any hazardous waste, toxic or dangerous substance or related material, including any substance defined, determined or identified as "hazardous waste", or "toxic substance" or "contaminant" (or comparable term) in any Environmental Law.

"Key Personnel" means those job titles and the persons assigned to those positions in accordance with the provisions of this Contract.

"Landside" means the airport terminal areas, parking, roadway, baggage and curbside areas and other areas outside the Aircraft Operations Areas.

"Manufacturer's Warranty" means a representation by a fabricator or manufacturer as to the character and quality of materials that are a part of the Work, along with a promise to repair or replace materials not in conformance with such representation, which Warranty is provided by a fabricator or manufacturer in the normal course of its business.

"MCC" means the Municipal Code of Chicago.

"Monthly Update Schedule" means a version of an original Baseline Schedule that contains a record of progress to date and additions representing accepted changes in the future sequence of the work. The Monthly Update Schedule will accurately forecast the contractor's plan to complete the remaining Work within the time established by the Contract Documents as adjusted by Contract Modifications or Field Order.

"Moratorium Day" means a workday on which restrictions imposed on the performance of the work (other than due to weather, see Weather Day) by the Commissioner or other applicable authorities (most typically during holiday travel seasons) which so interfere with the prosecution of the Work as to be deemed by the Commissioner an event beyond the reasonable control of the Contractor.

"Night Work" means work performed between the hours of 6:00 pm and 6:00 am unless otherwise defined in the plans.

"Notice-To-Proceed" means written authorization from the Commissioner to the Contractor to commence the Work required by the Contract Documents.

"Office of Compliance" or "OCX" refers to the City department which oversees the MBE/WBE program in conjunction with the Department of Procurement Services.

"O'Hare Coordinate System" means the grid coordinate system originally established for the Airport.

"OMP" means the O'Hare Modernization Program of the City of Chicago.

"O'Hare Monument System" means the 'new' Monument System which was established in 2002. The coordinates are based upon North American Datum (NAD) 1983 and the elevation is based upon North American Vertical Datum (NAVD) 1988.

"Owner" means the City of Chicago.

"Pay Estimate" means a payment request to the City prepared by the Construction Manager for Work performed by Contractor. Pay estimates will be based upon actual quantities of Work performed at the unit prices specified in the Contractor's bid or, if a lump sum line item or lump sum contract, at the prices specified in the Work breakdown.

"Premium Time Cost" means additional labor costs resulting from working outside of regular scheduled working hours. Premium time costs include overtime and shift differentials as determined by the applicable labor union contract.

"PMO" means the Program Management Office that the City has retained to provide overall management services for the OMP.

"Project" means, collectively, the improvements to be constructed by the Contractor in accordance with the Contract.

"Project Limit Lines" means the geographical boundaries of the Project, as more fully identified and described in the Contract Drawings.

"Project Record Documents" are all documents the Contract requires the Contractor to provide to the City including but not limited to shop drawings, As-Built Documents, parts manuals, operation and maintenance manuals, project manuals and or specifications and manufacturers warranties.

"Punch List Work" means minor adjustments, repairs or deficiencies in the Work. Whether an item is Punch List Work or necessary for Substantial Completion will be determined in the sole discretion of the Commissioner.

"Risk Management Office" means the Benefits and Risk Management Office in the Department of Finance for the City, which is under the direction of the Comptroller and which is charged with the review and analysis of insurance and related liability matters for the City.

"Special Wastes" means those substances as defined in 415 ILCS 5/1 et seq. of the Illinois Environmental Protection Act and as further defined in Section 809.13 of 35 Illinois Administrative Code, Subtitle G, Ch. 1.

"Subcontractor" means any person or entity with whom Contractor subcontracts to provide any part of the Work and all subcontractors of any tier, suppliers, and materialmen, whether or not in privity with Contractor.

"Substantial Completion of a Milestone, Phase, or the Project" is the date upon which, in the determination of the Commissioner, the Contractor has completed all such work in accordance with the Contract Documents (including the commissioning of all systems and turnover of all operations and maintenance manuals) except for Punch List Work, and the City is able to occupy and/or use the Work as applicable that makes up the Phase, a Milestone, or the Project, as a whole for the purpose intended.

"Time Extension" means the period of time, in Calendar Days, that will be provided to the Contractor for a delay to the critical path of the approved Baseline Schedule that affected the Substantial Completion of any Phase, Milestone, or the Project, provided that the delay was caused by a City-directed change in the work or an event for which the Contractor is entitled to additional time to perform the Work under the terms of the General Conditions.

"TSA" means the federal Transportation Security Administration created by the Aviation and Transportation Security Act of 2001, and any successor agency thereto.

"Weather Day" means a workday on which restrictions imposed on the performance of the work by weather that so interferes with the prosecution of the work as to be deemed by the Commissioner an event beyond the reasonable control of the Contractor.

"Work" means all labor, materials, equipment, and other incidentals furnished by the Contractor necessary or convenient to the successful completion of the Project, and which are required by, incidental or collateral to the Contract Documents. Work which is necessary, convenient, required, incidental or collateral to that shown on the Contract documents shall be deemed to be included in the Contract Price and shall be furnished and installed by the Contractor at no additional cost to the City.

"Work Day" means every Calendar Day that the approved Baseline and Monthly Update Schedules indicate that the Contractor is to perform work.

B. Contract Interpretation.

Any headings of this Contract are for convenience of reference only and do not define or limit the provisions thereof. In this Contract, unless the context otherwise requires, the terms "hereby", "herein", "hereof", "hereto", "hereunder Contract" and any similar terms used in this Contract refer to this Contract. All section references, unless otherwise expressly indicated, are to sections of this Contract. Words importing persons will include firms, associations, partnerships, trusts, corporations, joint ventures and other legal entities, including public bodies, as well as natural persons. Words of any gender will be deemed and construed to include correlative words of other genders. Words importing the singular number will include the plural and vice versa, unless the context otherwise indicates. All references to any exhibit or document will be deemed to include all supplements and/or amendments to any such exhibits or documents entered into in accordance with the terms and conditions hereof and thereof. All references to any person or entity will be deemed to include any person or entity succeeding to the rights, duties, and obligations of such persons or entities in accordance with the terms and conditions of this Contract. The terms "include", "includes", or "including", when followed by one or more examples, denote a nonexclusive list.

C. Severability.

If any provision of this contract is held or considered to be or is in fact invalid, illegal, inoperative or unenforceable as applied in any particular case or in any jurisdiction or in all cases because it conflicts with any other provision or provisions of this contract or of any constitution, statute, ordinance, rule of law or public policy, or for any other reason, those circumstances do not have the effect of rendering the provision in question invalid, illegal, inoperative or unenforceable in any case or circumstances, or of rendering any other provision or provisions in this contract invalid, illegal, inoperative or unenforceable to any extent whatsoever. The invalidity, illegality, inoperativeness or unenforceability of any one or more phrases, sentences, clauses or sections in this contract does not affect the remaining portions of this contract or any part of it

D. Interpretation/Rules.

1. Intent of Plans and Specifications.

- a. The intent of the plans and specifications is to describe the Work that the Contractor will undertake to fulfill the requirements of the Contract. The Contractor must perform all Work as provided in the Contract Documents and such collateral, and incidental Work as required, necessary and/or convenient to complete the Work in accordance with the Contract Documents. The Contractor must furnish all required materials, equipment, tools, labor, temporary light and power, shop drawings, installation drawings, working drawings, and incidentals, unless otherwise provided in the Contract, and will include the cost of all such items in the Contract unit and lump sum prices for the several units of Work.
- b. The specifications and plans are not intended to cover every detail of materials, parts, or construction. The Contractor must furnish all materials, parts, and labor necessary to complete the Work, whether or not said details are particularly shown or specified, all at no additional cost to the City.
- c. Except as otherwise expressly stated in the Contract Documents, the Contractor's bid price(s) includes, and the Contractor must provide and furnish, all items necessary and incidental to the Work and the Project, including but not limited to all materials, parts, labor, supervision, coordination, administration, equipment, tools, temporary light and power, shop plans, working drawings, and incidentals required by the Contract Documents and desirable for the full completion of the Work, whether or not particularly shown, described, or specified in the Contract Documents; and the Contractor's bid price(s) includes all costs relating to, or associated with, the foregoing including but not limited to all direct costs, overhead, and profit. No terms of the Contract Documents, which more specifically indicate that the Contractor will bear the costs of an item or which more specifically indicate that an item will be performed at no additional cost to the City, will be construed or interpreted to in any way limit the foregoing.
- d. Wherever the imperative form of address is used, such as "perform the excavating", "provide equipment required", "remove obstructions encountered", "furnish and install reinforcing steel bars", it is understood and agreed that such address is directed to the Contractor.
- e. "Provide" as used in these specifications means furnish and install.
- f. Unless a contrary meaning is specifically noted elsewhere, words "as required," "as directed", "as permitted", and similar words mean that requirements, directions of, and permission of the Commissioner are intended; similarly the words "approved", "acceptable", "satisfactory", or words of like import, mean "approved by", "acceptable to", or "satisfactory to" the Commissioner. Words "necessary", "proper", or words of like import as used with respect to extent, conduct, or character of Work specified shall mean that Work must be conducted in a manner, or be of character which is "necessary" or "proper" in the opinion of the Commissioner.
- g. Wherever the words "approved", "reasonable", "suitable", "acceptable", "properly", "satisfactory", or words of like effect and import are used, they mean, unless otherwise particularly herein specified, approved, reasonable, suitable, acceptable, proper, or satisfactory in the judgment of the Commissioner.
- h. The Work under this Contract has not been completely segregated into divisions of Work to be performed by any trade or Subcontractor. The Contractor shall be responsible for all segregation of Work between the trade or craft jurisdictional limits.

- i. As provided in Section IV, before the Contractor physically begins the Work, the Contractor must check the City's plans and specifications. Should any errors, discrepancies or omissions be found in these plans and specifications or any discrepancy found between the Contract Drawings and the physical conditions at the site or in any subsequent drawings that may be provided thereafter, the Contractor must notify the Commissioner, in writing, within 48 hours of discovering the error, discrepancy or omission. Any Work done after such discovery, unless authorized by the Commissioner, will be done at the Contractor's expense. The Contractor will not be allowed to take advantage of any error, omission, or discrepancy in the Contract Documents.
- j. The Contractor will be furnished additional copies of the plans and specifications at the cost of reproduction. Specifications by organizations other than the City to which reference is made in the City's Technical Specifications will be obtained by the Contractor at its expense.
- k. The Contractor must keep on hand at the work site, for reference, a complete set of specifications for the Work, a complete set of all plans of the Work, copies of all plans furnished by the Contractor, all additional and revised plans furnished by the City and all orders issued to the Contractor by the Commissioner that relate to the Work.

2. Precedence of Documents.

Unless otherwise noted in the Requirements for Bidding and Instructions for Bidders (see Part 1), the following shall govern the Interpretation of the Contract in all cases of conflict or inconsistency therein.

In the event a seeming conflict between provisions within one or more of the items in the Contract documents is discovered, an interpretation which reconciles the otherwise inconsistent and/or conflicting provisions, without ignoring either or any of them, shall be preferred.

If such reconciliation is not possible, then the various Contract documents shall be deemed to govern in the following order of precedence:

- a. First: The General Conditions (Part 2) as issued or subsequently amended.
- b. Second: The Requirements for Bidding and Instructions for Bidders found in Part 1 as issued or subsequently amended.
- c. Third: Technical specifications (Part 3) as issued for bid or as subsequently amended.
- d. Fourth: Contract plan and drawings as issued for bid or as subsequently amended.
- e. Fifth: All other Contract Documents.

In the event of conflict or inconsistency between the Contract Documents as provided to the Contractor on CD and the Official Printed Copy of the Contract Documents, the Official Printed Copy shall govern.

E. Entire Agreement.

The Contract Documents, and the exhibits attached to them and incorporated thereby, shall constitute the entire agreement between the parties with respect to the subject matter hereof, and no other oral or written understandings, representations, inducements, consideration, promises, or interpretations will be implied or impressed upon this Contract that are not expressly addressed herein and therein.

END OF I

II. PROJECT ORGANIZATION

A. Owner.

1. The City of Chicago is the Owner of the Project. The City possesses and operates the Airport, which is on City property. The City possesses the power and authority to lease premises and facilities and grant other rights and privileges at the Airport.
2. Personal Liability of Public Officials: In carrying out any of the provisions of this Contract or in exercising any power or authority granted to them thereby, there will be no liability upon the Chief Procurement Officer, Commissioner, their authorized representatives, or any employee of the City, either personally or as officials of the City, it being understood that in such matters they act as representatives of the City.

B. The Commissioner.

Except where otherwise specified in this Contract, for the purposes of this Contract, the Commissioner, or any successor office to the Commissioner, will represent the City in all matters relating to the Contractor's performance of its Work, such as to the quality and acceptability of materials furnished and Work performed, rate of progress of the Work, the amount and quality of Work performed and materials furnished and the estimates thereof. The Commissioner's determination with respect to such matters is a condition precedent to the right of the Contractor to receive money due under the Contract, provided that the Contract Modifications are approved in accordance with Article X.

C. The Chief Procurement Officer.

The Chief Procurement Officer has the statutory authority to solicit and award this Contract for the City and will represent the City in most administrative matters relating to the Contract, such as approval of Subcontractors and approval of MBE/WBE plans.

D. Construction Manager.

The Construction Manager is the organization(s) or entity(ies) that the City has retained to oversee the construction of projects at the City's Airports. Among the duties relating to this Contract, the Construction Manager will inspect the Contractor's Work to verify that it is in compliance with the Contract Documents and act as a point of contact where indicated in the Contract Documents. The Construction Manager will have no authority to issue approvals that the Contract requires the Contractor to obtain from the Commissioner, to bind the City contractually, or to make modifications to this Contract. In carrying out any of the provisions of this Contract or in exercising any power or authority granted to it, there will be no liability upon any officer, employee, or authorized representative of the Construction Manager, either personally or as officials of the Construction Manager, it being understood in such matters they act as representatives of the Construction Manager.

E. Architect/Engineer.

The City has retained an Architect/Engineer for the project whose name appears on the plans (Part Three of the Contract Documents). The Contractor will have no direct contact with the Architect/Engineer except as authorized by the Commissioner. The Architect/Engineer is not authorized to make changes to designs approved by the City and included in the Contract Documents without the express direction of the City pursuant to a Contract Modification.

F. Testing Consultants.

The City may retain one or more consultants to perform testing of materials provided by the Contractor and incorporated into the Project to ensure compliance with Contract requirements. All such consultant(s) will make recommendations to the Commissioner and Chief Procurement

Officer but does not have authority to approve materials or substitutes which authority is reserved to and requires approval of the Commissioner and/or Chief Procurement Officer.

G. Contractor.

1. Contractor's Responsibility for Work:

- a. Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction.
- b. The Work shall be under the charge and care of the Contractor until Final Completion of the Project, Milestone, or phase, as determined by the Commissioner, including all "Punch List" Work, unless otherwise specified in the Contract Documents. The Contractor will assume all responsibility for injury or damage to the Work by action of the elements and fire or from any other causes whatsoever, whether arising from the execution, or from the non-execution, of the Work. The Contractor must rebuild, repair, restore and make good, at its expense, all injuries or damages to any portion of its Work occasioned by any of the above causes before its completion and final acceptance.
- c. When equipment or materials are furnished to the Contractor by the City for the Contractor's use or inclusion in the Work, the Contractor's responsibility for all such equipment and materials will be the same as for materials furnished by the Contractor.
- d. The Work will not be considered as completed and accepted until a written notice from the City confirming the Final Completion has been received by the Contractor.

2. Subcontractors:

- a. Except as otherwise provided in the Contract, all transactions of the City and the Commissioner will be with the Contractor; Subcontractors shall be recognized only in the capacity of employees or workers.
- b. Contractor further will implement such measures as may be necessary to ensure that its staff and its Subcontractors are bound by all provisions of the Contract.
- c. As provided in Article V, all Subcontractors must be approved by the Chief of Procurement Officer. The Contractor may not make any substitution for a Subcontractor that has been accepted by the Chief Procurement Officer, unless the substitution is acceptable to the Chief Procurement Officer. All requests to subcontract must be submitted on the form approved by the Commissioner and Chief Procurement Officer.
- d. The Contractor is responsible for all Subcontractors' Work.
 - (1) There is no privity between Subcontractors and the City; Subcontractors have no rights as third-party beneficiaries under this Contract.
 - (2) The Contractor will require the Subcontractors to communicate with the City through the Contractor only.

END OF II

III. PROPERTY

A. Ownership of Drawings and Documents.

1. All drawings, specifications, and copies thereof furnished by the Commissioner or CPO are the property of the City and are not to be used on other work.
2. The City will provide to the Contractor, without charge, one (1) CD of all Contract Documents, 2 complete full size drawing sets and two (2) complete half size drawing sets.
3. All documents, data, studies, reports, and instruments of service prepared for or by the City under this Contract, are the property of the City. During the performance of its Work, the Contractor will be responsible for any loss or damage to documents while in the Contractor's possession or the possession of a Subcontractor and any such document so lost or damaged must be restored at the expense of the Contractor.
4. The Contractor will deliver, or cause to be delivered, at any time during the term of this Contract all documents, including but not limited to drawings, models, specifications, estimates, reports, studies, maps, and computations, prepared by or for the City, under the terms of this Contract, to the City promptly upon reasonable demand thereof or upon termination or completion of the Work hereunder. In the event of the failure by the Contractor to make such delivery, the Contractor will pay to the City damages the City may sustain by reason thereof, including consequential damages.
5. All Project Record Documents and deliverables, and any other information or data, whether in hard copy or in electronic format, (collectively, "Data") prepared by or provided to the Contractor under this Contract are confidential. The Contractor must not issue publicity or news releases nor grant press interviews and, except as may be required by law during or after the performance of this Agreement, disseminate any information regarding the Project without the prior written consent of the Commissioner. In the event the Contractor is presented with requests for documents by any administrative agency or with subpoena duces tecum regarding any Data, the Contractor must immediately give notice to the Commissioner and to the Corporation Counsel of the City of Chicago with the understanding that the City shall have the opportunity to contest such a process by any means available to it before such Data are submitted to a court or other third party; provided, however, that the Contractor shall not be obligated to withhold such delivery beyond that time as may be ordered by a court or administrative agency, unless the subpoena or request is quashed or the time to produce is otherwise extended.

B. Right of Entry.

1. The Contractor, and any of its officers, employees, agents, and Subcontractors, shall be permitted to enter upon any part of the Project site owned by the City in connection with the performance of the Work hereunder, subject to the terms and conditions contained herein and those rules established by the Commissioner. The Contractor will provide advance notice to the Commissioner of any such intended entry. Consent to enter upon all or any part of the Project Site given by the Commissioner will not create, nor be deemed to imply the creation of, any additional responsibilities on the part of the City.
2. The Contractor must use, and will cause each of its officers, employees, agents, and Subcontractors, to use the highest degree of care when entering upon property owned by the City, and must comply and will cause each of its officers, employees, agents, and Subcontractors, to comply with any and all instructions and requirements for the use of such property. Any and all claims, suits, judgments, costs, or expenses, including reasonable attorneys' fees, arising from, by reason of, or in connection with any such entry shall be treated in accordance with the applicable terms and conditions of the Contract, including without limitation the indemnification provisions.

3. **Damage to City Property:** If the Contractor causes damage to City property, the Contractor must at the option of the Commissioner either 1) pay the cost of repair of the damage or 2) repair or replace the damage. To the extent that the City undertakes repair or replacement, the Commissioner will have the right to a set off against the payments to the Contractor for the cost of repairs or replacement if the City undertakes repair or replacement of the damaged property or has it done by others.

C. **Information Provided By the City.**

Surveys, soil borings, geotechnical information, data, or plans generally describing the unimproved land or existing structures at the site may be provided to the Contractor by the City. Such information is not warranted by the City to be accurate. The Contractor will not be entitled to rely on it. When such information is provided by the City and it appears on Contract Documents prepared by the Architect/Engineer, the Contractor acknowledges that the Architect/Engineer and City have not verified such information. Site plans prepared by the Architect/Engineer are based on surveys performed by consultants that have not been verified by the City and the Architect/Engineer. Site plans do not constitute any representation by the Architect/Engineer and City to the Contractor of site boundaries or characteristics. Information provided by the City may be based upon either the O'Hare Coordinate System or the O'Hare Monument System. Contractor is responsible for identifying the datum system used and, if it is the O'Hare Coordinate system, is responsible for converting that information to the O'Hare Monument System.

D. **Site Conditions.**

1. If conditions encountered at the site are:
 - a. Subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents, or
 - b. Pre-existing unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, including the presence of unanticipated Hazardous Materials, then pursuant to the Public Construction Contract Act, 30 ILCS 557, the Contractor will take no action to disturb the area until providing written notice to the Construction Manager immediately, and receiving notice from the Construction Manager as to how and when to proceed.
2. If the conditions differ materially from those indicated in the Contract Documents and could not have been known to the Contractor at the time the Contract was bid, and such conditions will cause a material increase or decrease in the Contractor's cost of, or time required for, the performance of any part of the Work, an equitable adjustment in the Contract Amount or Contract time or both, will be made based upon Article X, "Changes In The Work."
3. The Contractor must follow the requirement of written notice in Section III. D. 1. above and the requirements set out in Section XVII. A. Claims, regarding a claim for changed site conditions. The Contractor must also provide written Notice of Claim regarding the changed site condition to the Construction Manager immediately after its discovery. The Notice of Claim for the changed site conditions must state the nature of the changed site condition, its location, and the work that is affected by it. The Contractor's failure to provide the written notice to the Construction Manager within one day after discovery of the changed site condition constitutes a waiver of any Claim that Contractor may have relating to the changed site condition, a waiver of its right to file a Claim under Article XVII.A and a waiver of its right to file a dispute to the Chief Procurement Officer under Article XVII.B.

E. Permits and Licenses.

1. Wherever the Work requires the obtaining of permits from the City of Chicago or other public authorities, triplicate copies of such permits must be furnished to the Construction Manager by the Contractor hereunder before the Work covered thereby is started.
2. Except as otherwise provided in paragraph 2 below, the Contractor will obtain, at its own expense, all permits and licenses necessary to carry out the Work. Unless an Allowance for Permit Fees has been established in Book 1 of the Contract Documents, there will be no separate fee reimbursement from the City to the Contractor in connection with Permits and Fee requirements and all costs therefore are considered as incidental to the project.
3. Permits required from the Metropolitan Water Reclamation District of Greater Chicago, the Illinois Division of Waterways, and the U.S. Army Corps of Engineers will be obtained by the City.
4. The special use of or removal, alteration, or replacement of certain City owned facilities and appurtenances such as traffic signs, trees, sewers, hydrants, bridges and viaducts, which will be required as a consequence of the Contractor's Work, will be subject to the applicable Municipal Ordinances. It will be the Contractor's responsibility to obtain all the necessary permits and pay the associated fees. Copies of such permits will be furnished to the Construction Manager by the Contractor before the Work covered is started. No payment will be made for Work performed without the required permits unless authorized by the City. Information with regard to the above may be obtained by contacting the appropriate City Departments.
5. Water System Work: If water from a City hydrant is necessary to the execution of the Work, the Contractor, with approval of the Construction Manager, will obtain a hydrant permit from the Department of Water Management of the City of Chicago. Before starting Work, the Contractor will pay to the Department of Water Management of the City of Chicago a fee for water to be used as set forth in the Municipal Code of Chicago and its amendments to date. Payments are to be made to: Department of Water Management, Bureau of Billings & Customer Services.
6. Sewer System Work: The construction, repair, adjustment, or cleaning of any subsurface structure designed to collect or transport storm and/or wastewater, either in private property or in the public way, will require a permit issued by the Department of Water Management.
 - a. The construction, repair, adjustment, or cleaning of any subsurface structure designed to collect or transport storm and/or wastewater, either in private property or in the public way, will require a permit issued by the Department of Sewers, (Sewers and Drains),.
 - b. Sewer Permits for doing any of the above described Work will be issued to Sewer Drain Layers currently licensed by the Department of Sewers. Contractor must be, or must subcontract with, a licensed Sewer Drain Layer for such Work.
 - c. When applying for a permit, a Contractor must submit two (2) sets of plans which show all new underground sewer work inside and around the Project with a clear site or location plan together with an estimate of the sizes and quantities of sewer to be installed.
 - d. Contractor must arrange for permits and/or inspection at least forty-eight (48) hours prior to starting work.

- e. A copy of the permits must be on the jobsite prior to starting construction.
 - f. Failure to obtain permits prior to starting construction could result in the revocation of the drain layer's license.
 - g. Plans for large projects (over 400 feet of sewer work) are to be brought in for examination and review by the City's Construction Manager at least two (2) days prior to application for the issuance of permits.
7. Traffic and Parking Sign Removal and Replacement: When sign removal and replacement is not a pay item of the Contract, the City of Chicago will remove and reinstall any sign as may be required; however, the Contractor will be responsible for all fees relative to the removal and replacement of all of the City's traffic and parking signs. The Contractor must advise the Bureau of Traffic Engineering and Operations, in writing, of the location of each sign to be removed by specifying its distance from the property line of the nearest cross street. Each sign legend should also be stated. The Contractor must provide this information at least five (5) business days prior to removal. The Contractor will also advise the Bureau of Traffic Engineering and Operations, in writing, of when signs may be reinstalled as soon as this date is known.

F. No Lien Provision.

- 1. The Contractor must notify its Subcontractors that no mechanics' liens under The Illinois Public Mechanics' Lien Act, 770 ILCS 60/23, will be permitted to arise, be filed, or maintained against public funds, the Project, or any part thereof or any interest therein, or any improvements thereon, or against any monies due or to become due to the Contractor on account of any work, labor, services, materials, equipment, or other items performed or furnished for or in connection with the Project; and the Contractor, for itself and its Subcontractors, does hereby expressly waive, release, and relinquish such liens and all rights to file or maintain such liens; and agrees further that this waiver of liens and waiver of the right to file or maintain such liens will be an independent covenant.
- 2. If any of the Contractor's Subcontractors, employees, officials, agents, or any other person directly or indirectly acting for, through, or under any of them files or maintains a lien or claim as described in paragraph "1" above, the Contractor agrees to cause such liens and claims to be satisfied, removed, or discharged within thirty (30) days from the date of filing thereof; provided, however, that the City may extend the thirty (30) day period if the City determines that such lien claim cannot be so satisfied, removed, or discharged in such period and that the Contractor is proceeding diligently to cause such liens or claims to be satisfied, removed, or discharged. The City will have the right, in addition to all other rights and remedies provided under this Contract or by law, to cause such liens or claims to be satisfied, removed, or discharged by any means at the Contractor's sole cost, such cost to include reasonable legal fees.
- 3. The Contractor must give, or cause to be given, a copy of these provisions to all Subcontractors and will include these provisions in all contracts with Subcontractors and/or give written notice of same to all Subcontractors or other persons having oral or written agreement with such Subcontractors.

G. Ownership of Property and Builder's Risk.

- 1. The City will be and become the owner of each of the improvements, equipment and fixtures which has been installed or constructed by the Contractor as part of the Project or for which the City has paid Contractor to store in anticipation of installation or construction. The City's title shall be free and clear of liens, claims, security interests or other encumbrances, upon the earlier of installation, payment therefore or Final Completion of the Project. However, transfer of title to the City shall not relieve Contractor of any of its responsibilities under this Contract with respect to Work in progress.

2. Regardless of passage of title, the risk of loss to any of the Work (and to any goods, materials, equipment and furnishings that are provided or are to be provided by the Contractor under the Contract) shall remain with the Contractor until the date of Final Completion of the Project. If any of the Work (or any goods, materials, equipment and furnishings that are provided or are to be provided by the Contractor under the Contract) is destroyed, mutilated, defaced or otherwise damaged, by any cause whatsoever, the Contractor shall repair or replace the same at no extra cost to the City. Any performance bond or insurance protection required by the Contract or otherwise provided by the City or the Contractor shall in no way limit the responsibility of the Contractor under this section.

END OF III

IV. SCOPE OF WORK

A. The Scope of Work for the Project.

The Work that the Contractor must provide under this Contract includes, but is not limited to, the Work described in Part Three of the Contract Documents. The Contractor must provide the Work in accordance with the standards of performance set forth in the Contract Documents.

B. Errors or Discrepancies in Contract Documents.

Before the Contractor begins the Work, the Contractor must check the City's plans and specifications. Should any errors, discrepancies, or omissions be found in these plans and specifications or any discrepancy found between the Contract Drawings and the physical conditions at the site or in any subsequent drawings that may be provided thereafter, the Contractor must notify the Commissioner, in writing, immediately. Any Work done after such discovery, unless authorized by the Commissioner and Chief Procurement Officer, will be done at the Contractor's expense. The Contractor will not be allowed to take advantage of any error, omission, or discrepancy in the Contract Documents.

C. Requests for Information (RFI).

All Contractor questions and requests for clarifications of the Contract Documents must be addressed through a Request for Information (RFI). RFIs will be generated by the Contractor and answered by written directive of the Commissioner.

D. City Directed Value Engineering

The City reserves the right to value engineer the Work by modifying the Contract Documents to provide innovative, alternative, lower cost construction without impairing the essential functions and characteristics of the Work including, but not limited to, service life, reliability, economy of operation, ease of maintenance, necessary standardized features, desired appearance, or design standards ("City Directed Value Engineering"). Any such changes will be incorporated through a Contract Modification pursuant to Article X - Changes in Work. Payment for the Work will be made pursuant to Article IX. For City Directed Value Engineering, the Contractor will not be eligible to receive any Value Engineering Incentive.

E. Construction Operations Plan and Procedures.

1. Construction Operations Plan.

Within fifteen (15) days after the Contract Award date, the Contractor must submit to the Commissioner for review the order of procedure the Contractor proposes to follow in performing the Work, a proposed construction schedule, a list of equipment to be used and a general description of the procedures, methods, structures and equipment to be used ("Construction Operation Plan"). An Airport traffic management plan must also be submitted as part of the Construction Operation Plan, if required by the Commissioner. Work will begin only after the Contractor's proposed Construction Operation Plan has been approved by the Commissioner in writing. It is understood by the Contractor that a reasonable amount of time will be required by the Commissioner for the examination of said Construction Operation Plan. As Work progresses, changes or modifications in such procedure and Baseline Schedule, or in such methods, structures and equipment may be required by the Commissioner. In such event, upon notice from the Commissioner to the Contractor, further Work must be performed only in accordance with the changed Construction Operation Plan.

- a. Procedures, Methods, Structures and Equipment: No later than ten (10) days prior to starting Work, the Contractor must submit for the Commissioner's approval a detailed description of procedures, methods, structures and equipment for the Work that is consistent with the approved Construction Operation Plan. The Contractor will

determine the methods to be employed, the procedures to be followed, the plant, falsework, shoring, bracing and other temporary structures and equipment to be used in the Work, subject to the requirements of the Contract Documents and the approval of the Commissioner. The Contractor must furnish all material and supplies, plant, heat, power, staging and falsework, equipment, tools, implements, and all material and appliances of every sort or kind that may be necessary for the full and complete carrying out of this Contract, whether temporary or permanent and whether or not incorporated into the Work. The Contractor must provide, as part of its submittal, drawings and calculations for all equipment, falsework, shoring, bracing, and other temporary structures or temporary services required for the Work, designed, signed and sealed by the appropriate (i.e. Structural, Mechanical, Electrical, Civil, etc.) Illinois licensed engineer. As Work progresses, changes or modifications in the procedures, methods, structures or equipment may be required by the Commissioner. In such event, upon notice from the Commissioner to the Contractor, further Work must be performed only in accordance with the changed procedures, methods, structures and equipment.

- b. Commissioner Approval: The Commissioner, in the Commissioner's sole discretion, may disapprove, reject or require modification of any proposed or previously approved Construction Operation Plan or procedures, methods, structures or equipment that the Commissioner believes: (i) is unsafe for the Work, for other activities being carried on in the vicinity, for other structures, for the public, or for workers, engineers and inspectors employed thereon; (ii) will result in undesirable settlement of the ground, (iii) will not provide for the completion of the Work by the Contract Completion Date, (iv) is contrary to any other requirement of this Contract; or (v) will adversely impact Airport Security, Airport Operations, or any function of the Airport, or Airlines.
- c. Contractor Responsibility: It is expressly agreed that the Commissioner's acceptance or approval of the Construction Operation Plan and any procedure, method, structure, or equipment submitted or employed by the Contractor, will not in any manner relieve the Contractor of responsibility for the safety, maintenance, and repairs of any structure or Work, or for the construction, maintenance and safety of the Work hereunder, or from any liability whatsoever on account of any procedure or method employed by the Contractor, or due to any failure or movement of any structure or equipment furnished by the Contractor. If, even though implemented in accordance with a Construction Operation Plan and procedures, methods, structures and equipment approved by the Commissioner, any procedure, method, structure or equipment used by Contractor fails in any manner whatsoever, such failure will in no way form the basis for any claim for additional compensation, damages, expenses, an extension of time for completion of this Contract, or for material, labor or equipment required for repairing or rebuilding the Work or any other property that may have been damaged by the failure of any such procedure, method, machinery, structure or equipment.

2. Sustainability.

The CDA encourages the Contractor to implement the best possible environmental, social, and fiscally responsible practices. The Sustainable Airport Manual ("SAM") has been developed as an integral part of the overall sustainability standards for the CDA and is incorporated into this Contract by reference. Contractors are strongly encouraged to incorporate as many sustainability elements into their project as are feasible. The SAM is meant to supplement existing federal, state and/or local regulatory requirements with additional best practice sustainability strategies and considerations. The SAM does not supersede any existing standards, regulations, codes, guidelines or practices (visit www.airportsgoinggreen.org to obtain the latest version of SAM).

- a. Sustainability Requirements: Within thirty (30) days from the Notice to Proceed, the Contractor must submit to the Commissioner all required pre-construction sustainability plans, equipment/material lists, and estimates as detailed in the Part III,

Technical Specifications. Pre-construction submittals required by the Technical Specifications may include: Diesel Emission compliance Plan Pre-Construction Form; Local/Regional Materials Pre-Construction Estimate; Recycled Content Pre-Construction Estimates; Construction Waste Management Plan Pre-Construction Estimate of Construction & Debris Form. Failure to submit the required pre-construction documentation will result in rejection of the first payment for Mobilization as detailed in Part III Technical Specification – M-101 “Mobilization”.

- b. Submittals: Monthly and/or Project Completion submittals as detailed in the Part III Technical Specifications must be submitted as required. Failure to submit the required submittals and documentation may result in non-payment.
3. The Contractor must furnish all material and supplies, plant, heat, power, staging and falsework, equipment, tools, implements, and all material and appliances of every sort or kind that may be necessary for the full and complete carrying out of this Contract whether temporary or permanent and whether or not incorporated or to be incorporated into the Work.
4. Security Personnel: The Contractor must furnish security personnel not only to protect the public and those who Work at or in the vicinity of the Work under this Contract, but to protect all materials, tools, machinery and equipment and all Work performed by the Contractor until said Work has been completed and accepted by the City. The cost of security personnel is incidental to the contract unless otherwise specified in the Contract Documents.
5. Batch Plant: A batch plant may be authorized at the Airport in Part Three, otherwise, the Contractor must seek permission to have a concrete or asphalt batch plant on Airport property by making a written request to the Construction Manager for submission to the Commissioner and Director. It is within the absolute discretion of the Commissioner whether to allow a batch plant on Airport property and denial of permission is not subject to a claim or dispute under Article XVII of the General Conditions. If permission is provided, the use of the batch plant is subject to all conditions set by the Commissioner to which the Contractor must agree in writing. The Contractor must obtain and follow the requirements of all federal, state and local permits, copies of which must be provided to the Construction Manager, before the plant is placed in operation. The plant must be dismantled and removed from the Airport when directed by the Commissioner. The Contractor's failure to follow the Commissioner's direction to remove the plant or to comply with the conditions for use of the plant, set by the Commissioner, constitutes a default under the Contract. Only adequate and safe procedure, methods, structures, and equipment will be used. Any costs related to land leasing, rental fees, or operations will be incidental to the Contract.
6. Verification of Dimensions, Cutting & Patching.
 - a. Wherever the Work is required to connect to existing improvements, the Contractor must take complete field measurements affecting all construction in this Contract and will be solely responsible for the proper fit between the Work and existing structures or appurtenances.
 - b. The Contractor must do all cutting, patching, or fitting of Work that may be required to make the Work under this Contract and the existing improvements come together and fit properly. In the event field measurements contradict the design drawings, Contractor must submit discrepancies, via Request for Information, to the Commissioner for clarification.
7. Contractor's Layout of the Work. The Contractor is responsible for the correct lay-out and accurate fitting of all parts of its Work. All labor, materials, and other expense necessary for, or incidental to, the setting and maintaining of lines and grades (exclusive of the tasks of establishing the original reference base line and bench marks which must be performed

by the City) will be furnished by the Contractor at its own expense. All Contractor layout and control survey work must be performed by a professional Land Surveyor registered in the State of Illinois.

8. Occupancy Interferences.
 - a. The Contractor must utilize a method of Work which interferes as little as possible with the normal conduct of Airport Operations or business in or around the Airport.
 - b. The building or structures may be in full time use and operation and will continue in normal use during application and installation of the Work. Building facilities, including heating, ventilation, and air conditioning, lighting and plumbing, will not be interrupted in the occupied areas, except as required for making connections to power sources as hereinafterspecified.
 - c. The Contractor will serve written notification to the Commissioner requesting any anticipated interruption in facilities at least two (2) weeks prior to disruption of services, allowing for temporary relocation of personnel, operations, and equipment during the Work. The Contractor must provide any temporary facilities deemed necessary by the Commissioner due to a disruption of services. The Commissioner, in his or her sole discretion, will determine the procedures, times of day and dates the Contractor may accomplish the Work and may reject or modify the Contractor's request.
 - d. Deliveries and Storage of all material and/or equipment must be located in areas as designated or approved by the Commissioner, scheduled in such manner to minimize interference with the normal conduct of business in or around the occupied portions of the building and airline or vehicular areas.

END OF IV

V. SUBCONTRACTING & ASSIGNMENT

A. No Assignment of Contract.

The Contract must not be assigned or any part of the same subcontracted without the written consent of the Chief Procurement Officer. If the Chief Procurement Officer provides consent, such consent does not relieve the Contractor from any of its obligations or change the terms of the Contract, and Contractor shall remain responsible for satisfactory performance of all work undertaken by the assignee or Subcontractor.

B. No Assignment of Contract Funds.

The Contractor will not transfer or assign any Contract funds or claims due or to become due without the prior written consent of the Chief Procurement Officer and Comptroller. The transfer or assignment of any Contract funds, either in whole or in part, or any interest therein, which will be due or to become due to the Contractor, without the prior written consent of the Chief Procurement Officer and Comptroller, is void so far as the City is concerned.

C. Subcontracts.

1. All Subcontractors are subject to the approval of the Chief Procurement Officer before they may provide material, labor or services on the Project. The Contractor, upon entering into any agreement with a Subcontractor that has been approved by the Chief Procurement Officer must furnish the Chief Procurement Officer with one (1) copy of a written contract evidencing such agreement signed by the Contractor and Subcontractor. Copies of all written Subcontractor agreements and Purchase Orders for Suppliers must be provided to the Chief Procurement Officer within fifteen (15) days of the Notice to Proceed. All subcontracts must be in writing, must require each Subcontractor to be bound by the terms of this Contract, and to assume toward the Contractor all the obligations and responsibilities which the Contractor, by this Contract, assumes toward the City. All subcontracts must require that any services to be performed will be performed in strict accordance with this Contract and must provide that the Subcontractor is bound by and subject to the requirements of this Contract, whether or not a particular provision specifically mentions Subcontractors, and will provide that the City's rights are not thereby prejudiced. All Contractors and Subcontractors must have a Vendor Number. Vendor number requests shall be made on the form provided by the Commissioner.
2. The Contractor hereby collaterally assigns any or all subcontracts to the City, effective upon the City's exercise, in its sole discretion, of its rights to assume such assignment as a remedy for Contractor's default or in the event of early termination. The Contractor must require each of its Subcontractors (including material suppliers) to consent to a collateral assignment to the City of its respective subcontract with the Contractor. The Contractor's subcontracts must include language stating, "Contractor has collaterally assigned this subcontract to the City of Chicago, effective upon written assumption of such assignment by the City in the event of Contractor's default or early termination of Contractor's contract with the City. Subcontractor hereby consents to such assignment and assumption. Subcontractor acknowledges and agrees that, in the event of such an assignment and assumption, the City will have no liability to Subcontractor for work performed by Subcontractor prior to the effective date of the assignment and assumption and that Subcontractor shall look solely to Contractor for any compensation or other obligations arising under the subcontract prior to such date."
3. Subcontracts may contain different provisions than are provided herein with respect to payments, schedules, and matters not affecting the quality or timely completion of the Work. The subcontract must preserve the rights of the City under this Contract with respect to the Work performed by the Subcontractor so that the subcontracting thereof will not prejudice such rights. Where appropriate, the Contractor must require each Subcontractor to enter into similar subcontracts with its Subcontractors. The Contractor will make

available to each Subcontractor, prior to the execution of such subcontract, copies of this Contract to which the Subcontractor will be bound by this paragraph.

D. City's Right To Assign.

The City expressly reserves the right to assign or otherwise transfer all or any part of its interests hereunder without the consent or approval of the Contractor.

END OF V

VI. QUALITY OF WORKMANSHIP, EQUIPMENT AND MATERIALS

A. Standards of Performance.

1. Without limiting Contractor's obligations to complete the Project in accordance with the Contract Documents, the Contractor must perform, or cause to be performed, all of the Work required by the Contract with that degree of skill, care, and diligence normally exercised by experienced contractors performing that type of work in projects of a scope and magnitude comparable to the Project. The Contractor must assure timely and satisfactory completion of the Work. The Contractor must at all times act in the best interests of the City. The Contractor must perform, or cause to be performed, all Work in accordance with the terms and conditions of this Contract and to the reasonable satisfaction of the Commissioner.
2. The Contractor will further perform, or cause to be performed, all Work hereunder according to those standards for Work at the Airports promulgated by CDA, the FAA, and any other interested Federal, State, or local governmental units.

B. Compliance with Contract Documents.

The Contractor must supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. The Contractor is responsible for ensuring that the Work complies with the Contract Documents.

C. Correction of Work.

1. The Contractor, when directed in writing by the Commissioner, must promptly reperform, correct, or remove all Work identified to be defective or as failing to conform to the standards set forth in Section VI A above or the Contract Documents, whether observed before or after Substantial Completion of the Contractor's Work and whether or not fabricated, installed, or complete. The Contractor must bear all costs of correcting such defective or nonconforming Work, including costs associated with removing and reinstalling any nonconforming Work and compensation for any additional services made necessary thereby.
2. If the Contractor does not proceed with re-performance, correction, or removal of such defective or nonconforming Work after written notice from the Commissioner and within the time period designated, the Commissioner may correct or remove it. In addition, the Commissioner may store at the expense of the Contractor, portions of Work that have been removed as needed for others to undertake the corrective Work. If the Contractor does not pay the cost incurred for any such removal and storage within ten (10) days thereafter, the Commissioner may upon ten (10) additional days' written notice from the Chief Procurement Officer, sell such defective or non-conforming Work at auction or at private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor, including compensation for the Commissioner's additional Work or services of City employees or others made necessary thereby. If such proceeds of sale do not cover all costs the Contractor should have borne for removal and correction of the Work, the difference will be charged to the Contractor, deducted from any amounts due the Contractor. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor must pay the difference to the City.
3. Work done outside the Contract limit lines shown on the Contract Drawings or any work performed outside the scope of the Contract without a Field Order or Contract Modification will be considered as unauthorized and at the expense of the Contractor and will not be measured or paid for. Upon direction of the Commissioner, work so done must be removed or replaced and those areas restored at the Contractor's expense.

4. Neither the letter of Final Completion, nor any provisions in the Contract Documents will relieve the Contractor of responsibility for nonconforming Work, faulty materials, equipment or workmanship and, unless otherwise specified, the Contractor will remedy any defects due thereto and pay for any damage to other Work resulting therefrom. The Commissioner will give written notice of such observed defects with reasonable promptness.

D. Failure To Proceed With Directed Work.

In case of Contractor's failure to execute work in accordance with the Contract or a Field Order, the Commissioner may give Contractor written direction to perform the work within the period required by the Commissioner. If the Contractor fails to comply with such written direction, the Commissioner may give notice in writing to the Contractor and, with the approval of the Chief Procurement Officer, may direct others to proceed to execute such Work as may be deemed necessary, and the cost thereof will be deducted from compensation due or which may become due the Contractor under the Contract.

E. Materials.

1. Quality of Materials.

- a. Unless otherwise specified in the Contract Documents, all material incorporated into the Project must be new and must be incorporated in such manner as to produce completed construction, which is in conformance with the Contract Documents and acceptable in every detail to the Commissioner. The Contractor must certify on the "Request For Inspection of Material" form designated by the Commissioner that all materials and equipment to be used in the project comply with all Contract requirements. Only materials which conform to the requirements of the Contract Documents shall be incorporated in the Work.
- b. In the absence of a definite specification, materials must be the best of their respective kinds with properties best suited to the Work required. Inspection of materials shall be as specified in Article XIII, "Testing and Inspection".

2. Source of Materials.

- a. The Contractor must notify the Commissioner in writing as soon as possible, but no later than thirty (30) days, after the Contract has been awarded of the source (or sources) from which the Contractor expects to obtain the various construction materials. The source of supply of each material used must be approved by the Commissioner before delivery is started. If sources previously approved are found to be unacceptable at any time and fail to produce materials satisfactory to the Commissioner, the Contractor must furnish materials from other approved sources.
- b. If the Contractor seeks to investigate new sources of supply, the Contractor must furnish without charge such preliminary samples as the Commissioner may require. Tests may be made on these preliminary samples and reports rendered, but it is understood that such tests are for information purposes only and that the tests will not be construed as a guarantee of acceptance of any alternate supply of materials.

3. Substitution of Materials.

- a. Except for requests for substitution that were identified in the Contractor's bid and approved by the Commissioner and Chief Procurement Officer in accordance with Part One of the Contract Documents, requests for substitution for specified products or manufacturers will be considered only in case of product unavailability or other conditions beyond the reasonable control of the Contractor, or due to City Directed value engineering.

Each request for substitution must be submitted separately and must include:

- (1) Complete data substantiating compliance of proposed substitution with requirements stated in the Contract Documents, including:
 - (a) Product identification, including manufacturer's name and address.
 - (b) Manufacturer's literature identifying:
 - i) Product description
 - ii) Reference standards
 - iii) Performance and test data
 - (c) Samples, as applicable.
 - (d) Name and address of similar projects on which the product has been used, and date of each installation.
 - (2) Itemized comparison of the proposed substitution with product specified; list significant variations.
 - (3) Data relating to changes in Baseline Schedule.
 - (4) Any effect of substitution on other parts of the Work, any Subcontractors, or any separate contracts.
 - (5) List of changes required in other Work or products.
 - (6) Accurate cost data comparing proposed substitution with product specified, including amount of any net change to Contract Price.
 - (7) Designation of required license fees or royalties.
 - (8) Designation of availability of maintenance services, sources of replacement materials.
- b. The Contractor warrants and represents that in making a formal request for substitution that:
- (1) The proposed substitution is equivalent to or superior in all respects to the product specified.
 - (2) The same warranties and guarantees will be provided for the substitute as for the product specified.
 - (3) The Contractor will coordinate the installation of accepted substitutes into the Work and will make such changes as may be required for the Work to be complete in all respects.
- c. If the evidence presented by the Contractor does not provide a sufficient basis for such reasonable certainty that the proposed substitution or deviations will provide a quality or result at least equal to that attainable by the product specified, the Commissioner may reject substitution or deviation without further investigation.
- d. The Commissioner will judge the design and appearance of proposed substitutes on the basis of their suitability in relation to the overall design of the Project, as well as for their intrinsic merits. The Commissioner will not approve proposed substitutes as equal to items specified which, in the Commissioner's opinion, would be unharmonious, or otherwise inconsistent with the character, quality or design of the Project.

- e. Any additional cost, or any loss or damage, arising from the substitution of any material or method for those specified must be borne by the Contractor, including the cost for damages incurred by other contractors notwithstanding approval or acceptance of such substitution by the Commissioner, unless such substitution was initiated at the written request or direction of the Commissioner.
- f. The investigation, review and approval of substitute materials requires a minimum of thirty (30) days beyond that required for specified routine items. The Contractor agrees that no request for a delay or disruption will be allowed whether or not the substitution is granted.
- g. Approval by the Commissioner of a substitution of material must be given pursuant to a Contract modification as required in Article X, "Changes in the Work."

F. Warranties.

1. Warranties.

- a. The Contractor warrants to the City that the Work, materials, and equipment furnished and installed under the Contract are of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, modifications not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage.
- b. Without limiting the scope or duration of any Manufacturer's Warranty provided for specific parts of the Work, all Work furnished under this Contract must be warranted against defective materials and workmanship, improper performance and non-compliance with the Contract Documents for a period of time provided by law or the Manufacturer's Warranty. Warranties of manufacturers and installers, where required by Part Three of the Contract Documents, Detailed Specifications, shall be secured by the Contractor for the periods specified.
- c. Without limiting, and in addition to complying with, all warranties and guarantees contained herein, Contractor will, for a period of one year from the date of Final Completion of the Project, at its own expense and without any cost to the City, repair and replace all Work and/or defective parts that may be required or made necessary by reason of defective design, material or workmanship, or by reason of non-compliance with the Contract Documents. This will be known as the "Correction Period." The Correction Period will commence on the first day the individual item is placed in service by the City. The City may revoke acceptance if the materials, goods, or components are later discovered not to be in conformance with this Contract. Any Work, equipment, or materials which are repaired or replaced shall have the applicable Correction Period extended for one additional year from the date of the last repair or replacement.
- d. Nothing stated herein shall be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

2. Contractor's Warranties.

- a. The Contractor's Warranty must be in addition to any Manufacturers' Warranties.
- b. The Contractor's Warranty must include the name of the Project as designated in the Contract Documents, be signed by an officer of the company having authority to provide the warranty. This warranty incorporates all provisions of the Contract Documents that refer or relate to the guarantee. This warranty is commenced on (date)."
- c. Should the Contractor or any Subcontractor of any tier return to do any Work during the warranty period, the Contractor or any Subcontractor of any tier must procure and maintain the insurance coverages required in Section III by this Contract and provide certificates of insurance for the coverages to the Commissioner, prior to beginning the work.

3. Manufacturer's Warranties.

- a. The Contractor must:
 - (1) ensure that all required Manufacturer's Warranties pass through to the CDA.
 - (2) submit all applicable Manufacturer's Warranties to the Commissioner and ensure that all warranty forms have been completed in the CDA's name and registered with the appropriate manufacturers.

Repairs and replacements made by the Contractor, pursuant to Section VI.F.3, will include a Manufacturer's Warranty, if standard with the Manufacturer, in addition to the Contractor's Warranty.

G. Testing Laboratory Labels.

1. All equipment containing electrical wiring must conform to the City Electrical Code.
2. In compliance with City of Chicago Ordinances all items of equipment furnished and installed or assembled by the Contractor under this Contract will be approved and so labeled by a testing laboratory acceptable under the Chicago Electrical Code Section 14-64-010.
3. Any unit comprised of a number of components assembled at the factory and considered custom made will have a label of a testing laboratory acceptable under the Chicago Electrical Code Section 14-64-010 for the entire unit as well as for each component.
4. All costs in obtaining a Testing Laboratory Label will be paid for by the Contractor with no additional charge to the City.

Any delays in Completion of the Project caused by the manufacturer of equipment in obtaining the required Testing Laboratory Labels and City approval will not be grounds for an extension of time beyond the Substantial Completion Date.

H. Materials, Inspection and Responsibility.

Without limiting the city's rights of inspection under Article XIII or elsewhere in this Contract:

1. The Commissioner, by his or her representatives, shall have the right to inspect any equipment or materials to be used in carrying out this Contract.
2. The City does not assume any responsibility for the availability of any controlled materials or other materials and equipment required under this Contract.

3. The Contractor shall be responsible for all materials, components and completed Work furnished under this Contract until expiration of the Contractor's Warranty.
4. Materials, components or completed Work not complying herewith may be rejected by the Commissioner and must be replaced by the Contractor at no cost to the City.
5. Any materials or components rejected must be promptly removed from the project or project site at the sole expense of the Contractor following receipt of notice from the Commissioner that such materials or components have been rejected.

END OF VI

VII. PERSONNEL

A. General.

The Contractor must, immediately upon receiving a fully executed copy of the Contract, assign and maintain during the term of the Contract and any extension of it, an adequate staff of competent personnel who are fully equipped, licensed as appropriate, available as needed, qualified and assigned exclusively to perform the Work. Contractor must include among its staff such Key Personnel and positions as identified below.

B. Key Personnel.

1. Upon award of the Contract, the Contractor will submit a project staff organizational chart, which includes the names and resumes of employees in key positions for this Project. All key personnel must have experience on projects of a like size and scope to this Project in the position they are proposed to fill. All employees in key positions must be approved by the Commissioner.
2. If any key personnel furnished by the Contractor for the Project in accordance with the key personnel provisions under this section of the Contract should be unable to continue in the performance of assigned duties for reasons due to death, disability or termination, the Contractor must promptly notify the Commissioner explaining the circumstances. Changes in assignment of key personnel due to commitments not related to this Contract are prohibited without Commissioner's approval.
3. On request by the Commissioner, the Contractor must furnish to the Commissioner within seven (7) working days the name of the person substituting for the individual unable to continue, together with any information the Commissioner may require to judge the experience and competence of the substitute person. Upon approval by the Commissioner, such substitute person must be assigned to the Project and if the Commissioner rejects the substitute, the Contractor shall have seven (7) days thereafter to submit a second substitute person. Such process shall be repeated until a proposed replacement has been approved by the Commissioner.
4. In the event that, in the opinion of the Commissioner, the performance of personnel of the Contractor assigned to this Project is at an unacceptable level, such personnel will cease to be assigned to this Project, must return to the Contractor, and the Contractor must furnish to the Commissioner the name of a substitute person or persons in accordance with the previous paragraph.

C. Character of Workers.

The Contractor must employ only competent and efficient laborers, mechanics, or artisans and whenever, in the opinion of the Commissioner, any such worker is careless, incompetent, violates safety or security rules, obstructs the progress of the Work, acts contrary to instructions or acts improperly, or fails to follow the safety requirements of this Contract, the Contractor must, upon request of the Commissioner, discharge or otherwise remove such worker from the Work and must not use such worker again, except with the written consent of the Commissioner. The Contractor must not permit any person to enter any part of the Work or any buildings connected therewith who is under the influence of intoxicating liquors or controlled substances.

D. Supervision and Superintendence.

1. The Contractor must personally supervise and superintend the Work, and will have a competent jobsite Superintendent, able to direct all of Contractor's and subcontractor's Work, at the site at all times that any Work is being performed.

2. The Contractor must also have a full time experienced and qualified Project Manager and Safety Representative assigned to the Project.
3. Job Superintendent and Project Manager or designee must be available by phone, 24 hours per day, 7 days per week, including holidays, throughout the Project duration.

END OF VII

VIII. SCHEDULE

A. Time.

1. Duration: The Contract duration for Substantial Completion is the period of time allotted in Part One of the Contract Documents for Substantial Completion. Contractor must achieve Substantial Completion of the Project by the Contract Completion Date.
2. Start Date: The date of commencement of the Work will be the date set forth in the Contract or such other date as may be established at the discretion of the Commissioner in the Notice to Proceed.
3. Progress and Completion.
 - a. TIME IS OF THE ESSENCE IN THIS CONTRACT.
 - b. No time extensions will be allowed unless they are contained in a Contract modification, which has been approved and executed by the City.
 - c. Without the Commissioner's prior written approval, the Contractor will not suspend any Work.
 - d. Notwithstanding any other terms contained herein, the Contractor will take measures to protect its Work and to minimize the impact of such conditions on the progress of the Work.
4. Liquidated Damages. Liquidated damages will be assessed against the Contractor, in accordance with the Schedule set forth in Part One of the Contract Documents, for: Substantial Completion of the Project after the Contract Completion Date, failure to achieve any milestone or phase dates that provide for liquidated damages as set out in Part One of the Contract, failure to return any area to aircraft operations on a timely basis as set out in Part One of the Contract Documents, or failure to complete the Punch List Work as required by Section VIII.D.2.
5. Daily Progress Reports: The Contractor and all Subcontractors must prepare and submit to the Commissioner daily progress reports on the various parts of the Work in the form that is approved by the Commissioner. The daily progress reports must include, but not be limited to, the number of workers and the classification of the trades involved, equipment used, and any pertinent information regarding possible delays in the Work. Daily progress reports must be submitted to the Construction Manager prior to the completion of the following work day.
6. Weekly Project Progress Meeting: The Contractor's project manager and field superintendent must attend a weekly project progress meeting with the Construction Manager. The Contractor's project manager must submit a three-week look-ahead schedule, from the current accepted Monthly Update Schedule at the meeting. The three-week look-ahead shall include the activities ID and identify whether the activity is part of that Monthly Update Schedule's Critical path. The three-week look-ahead shall be provided through Final Completion of the Project. Weekly Progress Meetings will begin at Notice to Proceed and shall continue through Final Completion.
7. Float Time: Total Float Time shown on the Baseline Schedule is not for exclusive use of benefit of the Contractor, but is an expiring resource available to the City or the Contractor to accommodate changes in the Work, however originated, or to mitigate the effects of events which may delay performance of all or part of the Work. Time extensions for Contract performance will be granted only to the extent that delays extend the Critical Path of the current Monthly Update Schedule beyond the Contract Milestone(s) or Completion dates. In order to obtain a time extension, the Critical Path delay must be beyond the control and without fault or negligence of the Contractor, any of its Subcontractors or

concurrent delays. In the event that Contractor created a delay impact on an already negative float path on the current Monthly Update Schedule, the Contractor will not receive any time extension unless and until the negative float is increased for the activity with the highest negative float on the current Monthly Update Schedule.

B. Delays:

1. No Damages for Delay.

If the Contractor is delayed in the commencement, prosecution or completion of the Work by any act of the City, including but not limited to a delay, change, addition, deletion or modification in the Work or any omission, neglect or default of the City, or by order of the Commissioner, or the Commissioner's designee, or by any cause beyond the Contractor's control, none of which are due to any fault, neglect, act or omission on Contractor's part, then the Contractor shall be entitled solely and exclusively to an extension of time only. Such extension of time shall release and discharge the City, its employees and representatives from any and all claims for damages of whatever character, including but not limited to, disruption, changes in sequence, interference, inefficiency, field or home office costs claimed by the Contractor on account of the aforesaid or any other causes of delay.

2. Notice of Delay.

In the event that Contractor's performance of its Work is delayed by causes beyond the reasonable control of the Contractor, the phase / milestone of the project, the Substantial Completion Date or the Contract Completion Date of the project may be extended by the City to reflect the extent of such delay. The Contractor must give the Construction Manager written notice within five (5) Calendar Days of the commencement of such delay. The written notice by the Contractor will comply with the requirements of VIII. B.6. Consideration of a time extension for events beyond the reasonable control of the Contractor will only be made if the delay directly impacts critical path activities based on the latest accepted Monthly Update Schedule.

3. Events of Delay.

Events considered to be beyond the reasonable control of the Contractor are limited to acts of God, acts of the public enemy, fires, floods, earthquakes, epidemics, quarantine restrictions, labor strikes at the job site, freight embargoes, or Weather Days in Section VIII.B.4., provided that the listed causes were not foreseeable and did not result from the fault or negligence of the Contractor, and provided further that the Contractor has taken reasonable precautions to prevent further delays owing to such causes.

4. Weather Days.

- a. No additional time will be granted for weather days associated with this Contract. All work must be completed by the contract dates for each phase and milestone. However, weather events, which are exceptionally irregular, are excluded. Unless otherwise specified in Part I, Instruction and Execution Documents, Section 4 – Time of Completion, an exceptional weather event shall be defined as an event that prevents work on one (1) or more Critical Path activities within the Baseline Schedule for three (3) or more consecutive planned workdays. The fourth (4th) consecutive planned workday prevented from occurring by an exceptional irregular weather event shall be grounds for requesting a time extension in accordance with General Conditions Article VIII.B.4.b.
- b. For each Weather Day the Contractor encounters that prevents work on critical path activities on Work Days in the latest accepted Monthly Update Schedule, the Contractor must provide written notice to the Construction Manager within two work days. The notice to the Construction Manager will be entitled Notice of Weather Day

and must state: 1) the date the weather occurred; 2) the type of weather (including the NOAA weather data or equivalent); and 3) the critical path activity of the latest accepted Monthly Update Schedule that could not be worked on because of the weather.

- c. The Construction Manager will review each Request for each Weather Day as submitted by the Contractor. The Construction Manager will notify the Contractor of its decision in writing. If the CM denies the Weather Day Request, the Contractor may appeal the decision to the Commissioner within (10) days of receipt of the denial from the Construction Manager.
 - d. The Commissioner will grant or deny the request for each Weather Day based upon the facts stated in the request and the actual weather conditions that day as they affected the Contractor's scheduled activities. The Commissioner will notify the Contractor of that final decision in writing. If the Commissioner denies the request, the Contractor will not be entitled to a Weather Day for the date requested.
 - e. The Contractor's failure to follow the requirements of this Section VIII.B.4 constitutes a waiver of the right to file a dispute to the Chief Procurement Officer pursuant to Article XVII.
 - f. If the Contractor does not agree with the Commissioner's final decision on a request for a Weather Day, the Contractor may appeal the decision to the Chief Procurement Officer under Section XVII.B of the Contract. However, the Contractor may not appeal the decision unless the Weather Day request exceeds three (3) Calendar Days or the liquidated damages exceed \$10,000. The decision of the Commissioner is final for each Weather Day request of three (3) days or less, or if the liquidated damages assessed are \$10,000 or less.
5. Delays Which Do Not Qualify For Time Extensions.

No extension of time will be granted under this section for any delay: (1) if the delay was caused by the action and/or inaction of the Contractor, including but not limited to the fault or negligence of the Contractor or its Subcontractors; or (2) for which any remedies are provided for or excluded by any other provision of the Contract; or (3) which has not been requested in strict accordance with Article VIII.B.6. Procedure for Time Extension Requests the procedures and such other provisions of the Contract Documents which may be applicable. The Commissioner's permitting the Contractor to proceed with its Work, or any part thereof, after such extension will in no way operate as a waiver of any other rights on the part of the City.

6. Procedure for Time Extension Requests.
- a. The Contractor expressly consents to both the time requirements and notice content requirements for requesting an extension of time set forth in this Section VIII.B.6. The Contractor acknowledges that the notice requirements set forth in this section VIII.B.6 shall be strictly enforced and agrees that any failure on the part of the Contractor to provide notice strictly in accordance with the requirements of this Section VIII.B.6, shall constitute a waiver of the Contractor's right to seek an extension of time or to file a dispute to the Chief Procurement Officer under Article XVII. The Contractor further understands and agrees that, notwithstanding any case law decision to the contrary, the notice requirements of this Section VIII.B.6 shall not be subject to or diminished by any claim on the part of the Contractor that the Commissioner or any person acting on behalf of the Commissioner had actual or constructive knowledge of any request for extension of time, entitlements to an extension of time or any facts or circumstances supporting an extension of time. The Contractor further acknowledges that the time requirements and content requirements of Section VIII.B.6 have the purpose, among others, of allowing the Construction Manager and Commissioner to evaluate the time

extension request contemporaneously with the event that has been claimed to cause the delay.

- b. In order to request a Time Extension, a "Commencement of Delay" notice must be provided in writing to the Construction Manager, no more than five (5) calendar days after the commencement of the delay, otherwise, the claim for the time extension is waived.
- c. "Termination of Delay" noticed must be provided in writing to the Construction Manager no more than five (5) Calendar Days after the delay has been terminated.
- d. If the cause of the delay impacts the critical path of the latest accepted Update Schedule, a "Request for Time Extension" must be submitted within ten (10) Calendar Days after the termination of the delay and must (1) state the cause of the delay, (2) specifically demonstrate the negative impact of the delay on the critical path of the latest accepted Update Schedule and (3) state the number of days requested.
- e. The Construction Manager shall advise the Contractor of its recommendation regarding the Time Extension request, in writing, within ten days of receipt. If the Contractor and Construction Manager agree on the length of a proposed Time Extension, the Contractor will sign a Contract Modification that states the agreed upon Time Extension for approval by the City to the Commissioner. The Contractor must make a Claim to the Commissioner, as required by Article XVII, regarding any Request for Time Extension request to which the Construction Manager and Contractor do not agree. However, the Contractor may not appeal the Commissioner's final decision unless the Request for Time Extension exceeds five (5) Calendar Days or the liquidated damages exceed \$10,000. The decision of the Commissioner is final for each Request for Time Extension of five (5) days or less, or if the liquidated damages assessed are \$10,000 or less.

7. Liquidated Damages for Delay

- a. As provided in Section VIII.A.4., if the Project is delayed as a result of the Contractor's refusal or failure to begin the Work on the date of commencement as stated in Section VIII.A.2 or as a result of Contractor's refusal or failure to carry the Work forward expeditiously with adequate forces, equipment, material or other resources, or as a result of Contractor's other failure to complete the Work according to the approved Baseline Schedule, and if Part One provides for liquidated damages then such damages, shall be assessed. Liquidated damages will be assessed for any of the following events, if so provided in Part One: (i) every day the Substantial Completion Date is exceeded, (ii) every day that a phase or milestone date (that provides for liquidated damages) is exceeded, (iii) every day for failure to complete Punch List Work as required by Section VIII.D.2, or (iv) for failure to return an area of the Project for aircraft operations within the time as may be required by Part One. In such events, the City will recover liquidated damages by deducting the amount thereof out of any moneys due or that may become due the Contractor, and if said moneys are insufficient to cover said damages, then the Contractor will pay the amount due.
- b. These liquidated damages are for Contractor's delay only, and nothing contained in this Contract limits the right of the City to recover from the Contractor any damages, costs and expenses sustained by the City due to Contractor's other improper performance hereunder, repudiation of the Contract by the Contractor, Contractor's other failure to perform, or Contractor's other breaches in any other respect, including but not limited to defective workmanship or materials.

C. Substantial Completion of Milestones, Phases, and Project.

The Contractor will notify the Construction Manager and Commissioner, in writing, of a definitive date when the Work on a milestone, a phase or the Project as a whole will be ready for

inspection to determine whether the Work is Substantially Complete. Notice will be given by the Contractor at least seven (7) days in advance of that date for a milestone or phase and fifteen (15) days in advance for the Project as a whole. If the Construction Manager concurs that the work will be ready for inspection and/or testing on the date stated, the Commissioner, Construction Manager and other parties, selected by the Commissioner, will make such inspection within a reasonable period of time. The scheduling of the inspection will not relieve the Contractor of its responsibilities under the Contract Documents. The Contractor is required to furnish access to all parts of the subject Work for the inspection.

D. Completion of Punch List.

1. It is also understood and agreed that TIME IS OF THE ESSENCE IN CLOSING OUT THE JOB SITE WORK OF THIS CONTRACT for a milestone, phase or Project completion. The Contractor agrees to begin work immediately after receipt of a Punch List.
2. The period to complete Punch List Work for a milestone or phase will be determined in the sole discretion of the Commissioner. The period to complete the Punch List Work for the Final Project Completion is forty-five (45) calendar days unless otherwise stated in Part One of the Contract Documents. The time period for completion of the Punch List Work begins the day after the Punch List is provided to the Contractor. The Commissioner may extend the period to complete Punch List Work for specific work, which requires the receipt of long lead-time materials. However, all other Punch List Work must be completed as required by Section VIII.D, including the turnover of Record Documents, As-Built Drawings and O&M Manuals and all other documents required by the contract documents.
 - a. Unless otherwise directed by the Commissioner and Chief Procurement Officer, failure of the Contractor or its Subcontractors to begin the Punch List Work on the job site prior to the expiration of three (3) Working Days after receipt of the Punch List will be construed as failure to prosecute the work of the Contract.
 - b. It is further understood and agreed that the Punch List Work will be continuously prosecuted once begun. Therefore, any gap of three (3) Working Days during which Punch List Work is not being performed on the job site will also be construed as failure to prosecute the work of the Contract.
 - c. The Contractor will notify the Construction Manager, in writing, of a definitive date when the Punch List Work will be ready for inspection. The Construction Manager and other required parties will make the inspection within a reasonable time frame. If the Punch List Work is deemed complete, the Construction Manager will issue a letter to the Contractor stating that the Project has reached Final Completion.
 - d. Unless otherwise agreed in a Contract Modification, the failure to commence, continue, or complete the Punch List Work will result in the charging of \$500 per day of liquidated damages.
 - e. If liquidated damages are assessed, they will be added to the previously determined liquidated damages assessed at the time of Substantial Completion of the Project.

E. Baseline and Monthly Update Schedules.

1. General.
 - a. It is understood and agreed that "TIME IS OF THE ESSENCE OF THE CONTRACT". The Contractor agrees to begin actual work covered by this Contract in conformity with the Contract provisions and to prosecute the same with all due diligence, so as to Substantially Complete the entire Work under this Contract by the Contract Completion Date, expressed in Calendar Days following Notice to Proceed as set forth in Part One. The Contractor will, when necessary, use overtime, multiple shifts,

weekend and or holiday work to maintain the Baseline Schedule, approved by the Commissioner, without additional compensation.

- b. The Contractor must use the Critical Path Method (CPM) as described in Paragraph 3 below in preparing the Baseline and Monthly Update Schedule for approval by the Commissioner. The Contractor must utilize Primavera Project Planner 6.0, or a more current version. The Commissioner may choose to direct the Contractor to use a different scheduling software program to prepare the schedule. The Commissioner's decision regarding the scheduling software is final and cannot be disputed under XVII of the Contract. Any costs associated with obtaining the required scheduling software or training to use such software will be incidental to the Contract.
- c. The Baseline Schedule will, at a minimum, indicate the dates for the starting and completion of the various stages of the Work, including without limitation the placing of material orders, delivery of materials and equipment; preparation, submittal and approval of all required compliance submittal; preparation and procurement of material and equipment furnished by the Contractor; interface activities performed by others upon which the Contractor's Schedule depends; all work activities and field construction operations; equipment installation, testing and balancing.
- d. The Commissioner's approval of the Baseline Schedule is done for the sole purpose of ensuring that all CPM scheduling documents prepared by the Contractor are in conformance with the Contract requirements. This approval does not relieve the Contractor of the responsibility for the means, methods, procedures, manpower requirements and equipment to meet Activity durations, and sequence of the construction process nor does it provide any entitlement to additional funds for Project Substantial Completion on a date that is earlier than the Contract Completion Date.
- e. The initial approved Baseline Schedule will only be changed based on a Contract Modification which extends the Contract Completion Date or the required date for completion of a phase or milestone. All updates will be plotted against the approved Baseline Schedule

2. Qualification and Approval of Scheduler.

- a. To assist in the preparation and maintenance of the Baseline and Monthly Update Schedule, the Contractor may engage, at its own expense, a consultant who is skilled in the application of CPM scheduling techniques for construction projects and the use of Primavera scheduling software. If the Contractor has qualified personnel on staff, the Contractor may perform the required scheduling with its own organization.
- b. Prior to engaging a consultant, or using in-house staff personnel and within five (5) Calendar Days after award of Contract, the Contractor must submit to the Construction Manager:
 - (1) The name and address of the proposed consultant or in-house staff person.
 - (2) Sufficient information to show that the proposed consultant, or the in-house staff person, has the qualifications and experience to meet the progress schedule requirements.
 - (3) A list of prior construction projects, along with Primavera schedule samples from three (3) different projects, which the proposed consultant or in-house staff person has prepared. These three (3) CPM schedules must be for projects similar in complexity and magnitude to this Project.
- c. The Commissioner has the right to approve or disapprove employment of the proposed consultant, or the performance of the schedule requirements of the Contract by the Contractor's in-house staff, and will notify the Contractor as to approval or

disapproval within seven (7) Calendar Days from receipt of the information. In case of disapproval, the Contractor will submit another person and the supporting documents within seven (7) Calendar Days. The Commissioner also reserves the right to disqualify the consultant or Contractors staff personnel at any time throughout the Project if the preparation, presentation, reporting and updating do not, in the Commissioner's opinion, meet the degree of detail described in the Project specification. The Commissioner's disapproval or disqualification of the consultant or in-house staff is final and cannot be disputed under Article XVII of the Contract. Such approval, disapproval or disqualification does not release the Contractor from any of its obligations under this Contract.

3. Critical Path Method.

- a. The Contractor must prepare a detailed Baseline and Monthly Update Schedule for the Work consisting of a CPM diagram or diagrams, as specified below. The format of the network diagram will utilize the "Gantt Chart" method with the relationship lines, showing the proposed starting and completion date for the various stages of the Project including any float time, and will be prepared so that it can be used to plot actual progress against proposed progress. The Baseline Schedule must have the same durations for phases, milestones, and Contract Completion Date as stated in Part One of the Contract Documents. The Baseline Schedule must be updated and submitted no less than monthly or more frequently as directed by the Commissioner or the monthly payment will be withheld pursuant to General Conditions Section IX.F.3 of the Contract.
- b. Specification applicable to Baseline Schedule and network diagram:
 - (1) Each separate sheet will include the Project name, Contract number, Contractor's name, data date and plot date. If multiple diagrams are prepared, each must, in addition to the above, include a descriptive title of that portion of the Work included therein. The Contractor will be given a "Schedule Template" which will identify the general layout and all required elements.
 - (2) The Baseline Schedule must show the order and interdependency of activities, indicating the sequence in which the Work is to be performed as planned by the Contractor and must describe and indicate the critical path.
 - (3) The Baseline Schedule must be submitted to the Commissioner in triplicate printed in color on 11"x17" paper. Additionally, a CD containing the following files must be submitted: Narrative, Baseline Schedule ("xer" format), Schedule Analyzer Report and a full schedule ("pdf" format).
 - (4) Activities shown on the Baseline Schedule will include, as a minimum, field construction operations, submittal to and approval of submittals by the Commissioner, procurement of material and equipment furnished by the Contractor or City, interface milestones performed by others upon which the Contractor's Baseline Schedule may depend, and equipment installation and testing. The duration for approval submittals shall be fourteen (14) calendar days for shop drawings, product data and samples and thirty (30) calendar days for requested substitutions. Exceptions to the review duration will be evaluated by the Construction Manager on a case by case basis. If a submittal is rejected or returned for correction, two new activities will be inserted into the schedule for Resubmission and another for Review of the Resubmission.
 - (5) The Contractor shall obtain a unique identifier from the CM prior to coding the schedule and use Primavera's "Project Activity Codes" for all codes defined in Section VIII.E.3.d.

- (6) The critical activities defined as activities with less than one (1) day of float will not exceed twenty (20) percent of the number of activities within each phase of work. The critical and near critical activities with less than ten (10) days of float will not exceed forty (40) percent of the number of activities within each phase of work.
- c. The following items define the term "activities" as it pertains to the Project CPM Schedule:
- (1) Each activity will be a unit of work, with an amount of time indicated for its performance.
 - (2) Each activity will be a logically separate part of the work, defined by an observable start and an observable finish. All activity relationships and the types of constraints must be accepted by the Construction Manager. Use of the following constraints is not permitted: Finish On, Start On, Mandatory Finish, Mandatory Start.
 - (3) To establish the scope of an activity for CPM purposes, the Contractor will form a single activity from the largest grouping of related operations, which permit a continuous and measurable flow of work.
 - (4) The scope of an activity will be concise enough to permit a reasonable appraisal of its status or as directed by the Construction Manager. Activities should be broken down in the level of detail as directed by the Construction Manager.
 - (5) Activities of other stakeholders or companies related to the project will be included in the Contractor's schedule as milestones and identified with a designation accepted by the Construction Manager.
- d. The following information must be furnished for each activity in the Baseline Schedule:
- (1) Activity ID.
 - (2) Description of the activity.
 - (3) Duration of the activity.
 - (4) Activity Resource References: each activity will include, but not be limited to: a) units of measure (e.g., SF, SY, TNS, LF, CY, LBS., EA.), budgeted quantity, and budgeted cost per unit or as detailed in the Schedule of Prices found in Part One, Section 3 of the Contract Documents. For the Baseline Schedule each line item from the Schedule of Prices must be included as its own resource in the resource dictionary and the sum of the resource loaded activities and general condition activities (e.g., mobilization, project management, bonds and insurance) must equal the amount bid. In addition, when directed by the Commissioner, the manpower requirements by subcontractor craft, man-hours, and equipment and items listed on the approved Schedule of Values must be provided.
 - (5) Each activity that is not performed by the Contractor will be assigned a responsibility code (using activity code "RESP") indicating which Subcontractor, supplier, fabricator, etc., is to perform the activity. Submittal review activities should be coded as "A/E" and Utility projects should be coded to the responsible utility.
 - (6) When applicable, each activity must be coded according to the phase (using activity code "PHAS") in which the activity is to be performed. Phase coding must be in accordance with the contract phasing specified in Part I of the

Contract Documents. Activities relating to the overall project or otherwise not specific to any particular phase must be coded "General".

- (7) When applicable, each activity must be coded according to the type of work (using activity code "TYPE") being performed. Type coding includes, but is not limited to, submittal and approval of submittals, procurement, fabrication construction / installation, and testing/commissioning. Activities relating to the overall Project, or otherwise not specific to any particular work type, must be coded "General".
 - (8) When applicable, each activity must be coded according to the location of the work (using activity code "LOCN") in which the activity is to be performed. Location coding includes, but is not limited to, terminal, concourses, gates, airside, landside, etc. Activities relating to the overall project, or otherwise not specific to any particular location, must be coded "General".
 - (9) When applicable, each activity must be coded according to the milestone (using activity code "MILE") in which the activity is to be performed. Milestone coding must be in accordance with the contract phasing specified in Part I of the Contract documents. Activities relating to the overall project, or otherwise not specific to any particular milestone, must be coded "General".
 - (10) When applicable, each activity must be coded according to the associated specification section (using activity code "SPEC"). Specification coding must accurately follow the Contract Documents and/or be in accordance with CSI standards, as required by the Commissioner.
 - (11) Additional activity code as may be required by the Commissioner.
 - (12) Each activity will be identified with early/late start, early/late finish, and total float.
 - (13) When applicable, each activity must be coded according to the associated Field Order number (using activity code "FO"). In addition, the Field Order must be identified within each activity description.
- e. In addition to the above, any phase, milestone, or activity with a start date/finish date or duration specified in Part One will be shown in the Project CPM Schedule. Phase, milestone, and Project Substantial Completion dates must have late finish constraints based upon the durations specified in Part One.
4. Completion Requirements.
- a. The Contractor must submit the required Baseline Schedule in two (2) stages:
 - 1) Stage 1 – must be submitted within fifteen (15) Calendar Days after the "Notice of Award" is issued. This schedule must detail the first ninety (90) days, then summarize the remaining activities through project completion and identify the critical path.
 - 2) Stage 2 – must be submitted within forty-five (45) Calendar Days after the "Notice of Award" is issued. This schedule must detail all activities through project completion with cost and resource loading.
 - b. Failure by the Contractor to provide the Baseline Schedule, both Stage 1 and Stage 2, within the required time period is grounds for the Commissioner to withhold monthly progress payments.
 - c. The Contractor will not be allowed to begin field work until the Stage 1 Baseline Schedule is approved by the Commissioner.

- d. Contractor's failure to have the Baseline Schedule approved because the schedule did not comply with the requirements of Section VIII.E. is not a basis for a Request for Time Extension.
5. Submittal, Acceptance, and Contractor's Responsibility for the Baseline Schedule.
- a. The Contractor shall submit a written narrative and a Schedule Analyzer Enterprise report in triplicate and text file with the submission of the Baseline Schedule. The narrative shall present the construction approaches and explain the schedule logic, and discuss the project's critical path.
 - b. Prior to submitting the Baseline Schedule to the Construction Manager, the Contractor must review and verify the procurement lead time for the fabrication and delivery of all construction materials and Project equipment along with the erection and/or installation durations for all the construction activities that make up the critical path of the Project.
 - c. The Contractor must coordinate its letting of subcontracts, material purchases, shop drawing submissions, delivery of material and sequence of operations to conform to the Baseline Schedule and will furnish proof of same as may be required by written notification from the Construction Manager.
 - d. Upon receipt of the Baseline Schedule and supporting documents, the Construction Manager will review the schedule for conformance with the Contract Documents and degree of detail and within fourteen (14) calendar days, will either approve the schedule or reject it with written comments. If the Baseline Schedule is approved, it will become the "Baseline Schedule" for the project. If the Baseline Schedule is rejected, the Contractor must submit a Revised Baseline Schedule to the Construction Manager within seven (7) Calendar Days after the first rejection. All subsequent rejections require a revised Baseline Schedule to be submitted within three (3) Calendar Days after the rejection.
 - e. In the event the Contractor fails to provide the required Baseline Schedule and supporting documents as outlined in this section within the time prescribed and/or updates within the stated time frames, the Contractor will be in default of the Contract requirements, and the Commissioner may, in addition to any other remedies available to the City, withhold monthly progress payments until such time as the Contractor submits the required information.
6. Monthly Update Schedule.
- a. The Contractor shall prepare the first Monthly Update Schedule by updating the accepted Baseline Schedule. The subsequent Monthly Update Schedules shall use the previous accepted Monthly Update Schedule as a basis for the current Monthly Update Schedule. All Monthly Update Schedules shall be targeted against the accepted Baseline Schedule for the purpose of comparison. The Contractor will be given a "Schedule Template" which will identify the general layout and all required elements.
 - b. When preparing the first Monthly Update Schedule, the Contractor must not make any changes, additions, or deletions to the accepted Baseline Schedule dates, durations, relationships, constraints, resources, codes, or costs, unless the changes have been requested in writing and accepted by the Commissioner. When preparing subsequent Monthly Update Schedules, using the previous Monthly Update as a basis, the Contractor must not make any changes, additions, or deletions to the accepted Baseline Schedule dates, durations, relationships, constraints, resources, codes, or costs, unless the changes have been requested in writing and accepted by the

Commissioner. The Monthly Update Schedule will be compared against the accepted Baseline Schedule.

- c. The Contractor must update the Monthly Update Schedule on a monthly basis coincident with the submission of the monthly pay estimate or more frequently if requested by the Commissioner at no additional cost. If payments are being made twice a month pursuant to Section IX.C.1, the Commissioner will determine whether the updated schedule information must be submitted with each pay estimate. The updated information will include the original schedule detail and the following additional information:
 - (1) Actual start dates
 - (2) Actual finish dates
 - (3) Activity percent completion
 - (4) Remaining duration of activities in progress
 - (5) Critical activities will be identified or highlighted
- d. The Monthly Schedule must be submitted to the Commissioner in triplicate printed in color on 11" x 17" paper in a format provided by the Construction Manager. Additionally, a CD containing the following files must be submitted: Narrative, Monthly Update Schedule ("xer" format), Baseline Schedule ("xer" format), Schedule Analyzer Report and a full schedule ("pdf" format). The Monthly Update Schedule must be submitted no later than three (3) work days after the data date. The data date will match the monthly NTP anniversary date or on a date as directed by the Construction Manager.
- e. Upon receipt of the Monthly Update Schedule, the Construction Manager will review the schedule for conformance with the Contract Documents and degree of detail. The Commissioner, within fourteen (14) Calendar Days after Construction Managers receipt of the updated Monthly Update Schedule and supporting documents, will approve the updated Monthly Update Schedule or reject it with written comments. If the updated Monthly Update Schedule is rejected, the Contractor must submit a revised updated Monthly Update Schedule within three (3) calendar days after the first rejection. All subsequent rejections require a revised Monthly Update Schedule to be submitted within three (3) calendar days after rejection.
- f. Progress payments will be withheld, by the Commissioner, if updates are not submitted by the Contractor as required.
- g. As part of the normal Monthly Schedule update, the Contractor must prepare a written narrative report, highlighting the progress during the past update period. The written narrative report will include but not be limited to the following information:
 - (1) Summary of Work accomplished during the past update period
 - (2) Comparison chart of the approved Baseline Schedule contract completion dates and the current update contract completion dates
 - (3) Analysis of critical path(s)
 - (4) Analysis of time lost/gained during the update period
 - (5) Identification of problem areas
 - (6) Recommended solutions to current problems
 - (7) Explanation of current changes to the schedule.
- h. The Contractor shall submit a narrative and a computerized schedule analysis report in triplicate with the submission of the Project CPM Schedule. The narrative shall compare previous months update with the current months update. The computerized schedule analysis report must be generated by using software acceptable by the Construction Manager and submitted as a hard copy and text file.

- i. The Contractor is required to attend a Monthly Update Schedule meeting with the Construction Manager. The purpose of this meeting is to review progress, current status, problem areas, planned work and the accuracy of the Monthly Update Schedule. The Contractor's narrative report will be reviewed at this meeting. The Contractor's representatives attending this meeting must include the accepted scheduler and key personnel that have the authority to commit manpower and/or other resources to correct any negative impact to the schedule. The Contractor shall provide any necessary computer and/or audio/visual equipment (such as a projector) to conduct this meeting.
 - j. The Monthly Update Schedule will be used as a guide for verifying estimates of work completed for which payment is requested, and must accurately represent the Project's as-built status. All remaining activities must accurately and logically reflect how the contractor plans on achieving the contractual dates set forth in Part One or as defined by accepted field orders. Any out of sequence logic must be corrected and re-planned. Any current changes from the current accepted Monthly Update Schedule must be requested and explained in the update Narrative.
 - k. None of the information provided in this Section VIII.E.6 constitutes a Request for a Time Extension under the General Conditions Section VIII.B.6.
7. Contractor Proposed Changes to the Monthly Update Schedule.
- a. If the Contractor proposes to make any changes in the approved Monthly Update Schedule, the changes must be addressed within the Narrative, stating the reasons for the change, identifying each changed activity (including durations and interrelationships between activities) and providing a compact disk of the proposed changed schedule.
 - b. The Commissioner has the authority, in his or her sole discretion, to approve or disapprove the proposed change in the Monthly Update Schedule and will do so in writing as part of the Monthly Update Schedule review. The Commissioner's decision is final and may not be disputed by the Contractor under Article XVII of the Contract.
 - c. Proposed changes that require changing the Primavera finish constraints originally established by the contract documents can only be accepted by approved Contract Modification.
8. Recovery.
- a. The Contractor must maintain an adequate work force and the necessary materials, supplies and equipment to meet the most recently accepted Baseline Schedule. In the event that the Contractor, in the judgment of the Commissioner, is failing to meet the Baseline Schedule, including any Contract milestones, the Commissioner will direct the Contractor in writing that a Recovery Schedule must be submitted to the Construction Manager. The Contractor must submit the Recovery Schedule within ten (10) Calendar Days of receipt of the Construction Manager's written direction.
- The Commissioner's decision to order a Recovery Schedule is final and may not be disputed. The Commissioner's rights under this provision are cumulative to rights under any other provisions of the Contract.
- b. The Recovery Schedule must set forth a plan to eliminate the accepted Monthly Update Schedule slippage (negative float). The plan must be specific to show the methods to achieve the recovery of time, i.e. increasing manpower, working overtime, weekend work, employing multiple shifts. All costs associated with implementing the Recovery Schedule will be borne by the Contractor.

- c. Upon receipt of the Recovery Schedule, the Construction Manager will review the Recovery Schedule for conformance with the Contract Documents and degree of detail and make a recommendation to the Commissioner. The Commissioner within fourteen (14) calendar days after receipt of the Recovery Schedule and supporting documents by the Construction Manager will either approve the Recovery Schedule or reject it with written comments. If the proposed Recovery Schedule is rejected, the Contractor must submit a revised Recovery Schedule within seven (7) Calendar Days after the date of rejection. All subsequent rejections required a revised Recovery Update Schedule to be submitted within three (3) Calendar Days after the rejection. The Commissioner's decision to reject the Recovery Schedule or a revised Recovery Schedule is final and may not be disputed by the Contractor under Article XVII. Progress payments may be withheld by the Commissioner if the Recovery Schedule is not submitted by the Contractor as required.
 - d. Upon approval of the Recovery Schedule, it will become the Revised Baseline Schedule. All future Monthly Update Schedules will be plotted against the Revised Baseline Schedule.
 - e. The Contractor must implement the Recovery Schedule immediately upon approval of the Recovery Schedule by the Commissioner. In the event the Contractor refuses to follow the direction of the Commissioner, the Commissioner reserves the right after seven (7) days written notice to the Contractor, to procure the materials, equipment and labor to proceed with or to complete the Work or any portion of it in accordance with the Recovery Schedule and charge the cost to the Contractor. The Commissioner's rights under this provision are cumulative to rights under any other provisions of the Contract including the City's rights to terminate for default or convenience.
9. Revised Baseline or Monthly Update Schedules.
- a. The Commissioner, through the Construction Manager, may direct the Contractor to revise the Baseline or the Monthly Update Schedule. The reasons for the direction may include but are not limited to: changes in the Work, re-phasing, the addition or deletion of scope, and acceleration.
 - b. The Construction Manager will direct the Contractor in writing to provide a revised Baseline or the Monthly Update Schedule. Resources and data related to those resources such as unit cost, cost, quantity, unit of measure, and resource ID must match the latest Pay Estimate. Resources and resource related data such as equipment hours, crew size, manhours, etc. will be evaluated and replanned by the Contractor to ensure the accuracy of the revised baseline schedule.
 - c. The Contractor must provide the Revised Schedule within ten (10) days of receipt of the Construction Manager's written direction.
 - d. The Commissioner has the authority, in his or her sole discretion, to approve or reject the Revised Schedule and will do so in writing within ten (10) days after receipt of the Contractor's submission; provided, however, that any change in the Baseline or Monthly Update Schedule that changes the Contract Completion Date or any date established in Part One for completion of a phase or milestone will require a Contract Modification. If the revised Baseline Schedule is rejected, the Contractor must submit the schedule to the Construction Manager within seven (7) calendar days after the first rejection. All subsequent rejections require the schedule to be submitted within three (3) calendar days after the rejection. If the Commissioner approves the Revised Schedule, then that Revised Schedule will be designated the new "Baseline Schedule". All monthly updates will be plotted against the new "Baseline Schedule" In Primavera. The Commissioner's decision to reject the Revised Schedule is final and may not be disputed by the Contractor under Article XVII.

F. Acceptance of the Work and Right to Occupy Before Substantial Completion.

1. The City may occupy and use the Project or portions thereof in advance of Substantial Completion of the Project. In the event that the City desires to exercise partial occupancy and use prior to Substantial Completion, the Commissioner will provide written notice to the Contractor, and the Contractor must cooperate with the Commissioner in making available for the City's use such services as heating, ventilating, cooling, water, lighting and telephone for space or spaces to be occupied, and if the Work required to furnish such services is not entirely completed at the time the City desires to occupy and use the space or spaces, the Contractor will make every reasonable effort to complete that Work.
2. When the Commissioner determines that the City will use all or part of the Project before Substantial Completion, the Commissioner will determine:
 - a. The responsibility between the City and Contractor for maintenance, repair, furnishing of utilities and the protection of the public (if required) for that part of the Project to be occupied.
 - b. The list of items remaining to be performed before the Project or portion thereof to be occupied will be substantially complete.
 - c. Whether any types of insurance will be needed by the Contractor.
 - d. The effect of the City's use before Substantial Completion on required guarantees and warranties.

G. Suspension of Work.

1. The Commissioner has authority to suspend the Work wholly, or in part for such period of time as the Commissioner may deem necessary due to conditions unfavorable for the satisfactory prosecution of the Work, or to conditions which, in the Commissioner's opinion, warrant such actions or for such time as is necessary to carry out orders given; or to perform any or all provisions of the Contract. If the Commissioner suspends the work for more than seven (7) Calendar Days, the Contractor will be entitled to compensation for the following costs of the suspension unless the suspension and/or costs were caused by any act or omission of the Contractor: demobilization and remobilization, field supervision (based upon the approved staffing plan), and idle equipment costs as provided in Article X.
2. If it becomes necessary to stop Work for an indefinite period of time, the Contractor must store all materials in such manner that they will not become damaged in any way, take every precaution to prevent damage or deterioration of the Work performed and erect temporary structures where necessary. The Contractor must not suspend work without written consent from the Commissioner.

H. Winter Suspension.

1. When the Contract Documents provides for a winter suspension, the Contractor must incorporate the winter suspension period into the Monthly Update Schedule. The winter suspension will begin and end on the dates specified in Part One of the Contract, if any.
2. The Contractor must prepare for the winter suspension period by removing or relocating any equipment, materials, stockpiles, or items, which may interfere with or impair Airport Operations. The Contractor must participate in a site inspection with the Commissioner on or before the winter suspension commencement date. Any grading, backfilling, barricades, or other items or work directed by the Construction Manager, will be completed without interfering or impairing Airport Operation, and must be finished before the commencement date of the winter suspension period. All costs associated with preparation of the project for the winter suspension period are incidental to the Project and must be included in the Contractor's Base Bid.

I. Work During the Winter Suspension Period.

1. If the Contractor requests permission to work during the specified winter suspension period and the request is approved, then the following rules will apply:
 - a. The Contractor will identify the proposed work within the most currently accepted Monthly Update Schedule by placing the work on a calendar that identified the proposed winter work days. The Monthly Update Schedule containing the proposed winter work must be submitted at least one (1) month prior to the commencement date of the winter suspension. If the proposed winter work is accepted, the Contractor will continue to update the Monthly Update Schedule as stated in paragraph E.6.c.
 - b. It is understood that no extension of time, regardless of the cause, or damages of whatever character, will be allowed for any work that may be delayed, hampered, disrupted, re-sequenced, changed, or stopped by the Commissioner or adverse weather during the winter suspension period.
 - c. All work will be coordinated with Airport Operations through the Construction Manager. Airport Operations cannot be interfered with or impaired in any way by the work being completed by the Contractor during the winter suspension. The Contractor will immediately remove and/or relocate any equipment, material, items, barricades, or stop work, if directed by the Commissioner.
 - d. Payment for work completed, inspected, and accepted during the winter suspension period will be in accordance with the procedures established in Article IX Payments.
 - e. It is understood that any increase in costs associated with the work done during the winter suspension period are the Contractor's responsibility and the Contractor is not entitled to any additional compensation. Such costs include but are not limited to, loss of productivity, winter heat, winter protection, snow removal, frost protection, disruptions to the work, work stoppages, temporary power, de-watering, winterized material (including but not limited to concrete, water, aggregate and bituminous mixtures.)
 - f. Substantial Completion dates for: Contract milestones, phase(s) (or sub-Phase(s) or the Project as a whole in the current approved Monthly Update Schedule will not be altered, changed, or adjusted in any way based upon the Work accomplished during the winter suspension period.
 - g. Any float for individual activities in the Baseline or Monthly Update Schedule that the Contractor gains, by doing Work during the winter suspension, must be used by the Contractor before it seeks a time extension.
 - h. All provisions of the Contract Documents apply to the Work being completed during the winter suspension.

END OF VIII

IX. PAYMENTS

A. General.

The Contract Price is the amount of the bid accepted by the City ("Contract Price"). The Contract Price includes all costs of any kind to complete the Project, including but not limited to, labor, equipment, materials, permits, licenses and taxes necessary to perform the Work in accordance with the Contract's written terms and conditions. To the extent that the Contract was bid by line items with unit prices and estimated quantities, the City will pay Contractor unit prices for actual quantities used. Lump sum bids and lump sum line items will be paid in accordance with Section IX.B. In all cases, any work contained in the Contract Documents for which no pay item is identified will be incidental to the Contract.

The City may opt to include allowances for certain work in the contract. Any allowances will be defined in the Contract Documents. Unless otherwise noted the value of the allowance shall be included in the Contractor's bid to arrive at the contract price. Allowances will be paid for in accordance with the terms outlined in the allowance description and Article X. Changes in the Work.

B. Contract Price Breakdown (Lump Sum Contracts and Lump Sum Line Item(s) of Unit Price Contracts).

1. To verify the progress of the Work and to facilitate processing monthly Pay Estimates to the Contractor on lump sum Contracts or lump sum line items, the Contractor must submit to the Construction Manager for review, within fifteen (15) calendar days after Contract Award Date, a complete detailed and itemized breakdown of the various parts of the Project that are to be paid for on a lump sum basis including combined values and quantities of material, labor and other separate costs of all items ("Breakdown"). The total of these costs must equal the total lump sum of the Contract or lump sum line item(s) as applicable. Each Breakdown must correspond to cost-loaded Baseline Schedule activities. Each Breakdown must be divided in such a manner that payments for the various parts of the Work may be reviewed by the Commissioner and verified against the Contractor's completed Work.
2. Each Breakdown will be in such form and in such detail and supported as to correctness by such data as the Commissioner may require. The Breakdown(s) will be used as a basis for Contractor's certificate for Payment Estimates.
3. If the Contractor does not furnish a Breakdown as required by the City, the Commissioner may at his/her discretion, withhold payment until an acceptable Breakdown has been provided and approved.

C. Procedure for Monthly Payment Estimate and Final Payment.

1. Provided that the Contractor proceeds to perform and complete the Work properly under the Contract, progress payments based on Pay Estimates, prepared by the Construction Manager, will be processed on a monthly basis. The payment period ends on the monthly anniversary date of the Notice to Proceed. Payments may be processed twice a month if the following conditions apply:
 - a. Any project valued at \$20,000,000 or less when the amount earned is greater than one million dollars (\$1,000,000).
 - b. Any project valued at \$20,000,000 or greater when the amount earned is greater than five million dollars (\$5,000,000).
2. Contractor must provide an original and two (2) copies of the following submittals to the Construction Manager as a condition precedent to the Commissioner submitting a Pay Estimate to the Comptroller for processing:

- a. **Certified Statement:** The Contractor must submit a certified statement (signed by the Contractor and notarized) with each Payment Estimate. The statement, in the form designated by the Commissioner, must list the amount earned by each Subcontractor, supplier and the Contractor during the Pay Estimate period and include the following:
 - (1) the name and business address of the particular Subcontractor or supplier;
 - (2) description of the Work performed and/or product supplied;
 - (3) indication that the Subcontractor or supplier is an MBE, WBE, or a non-certified firm;
 - (4) the total amount of the particular subcontract;
 - (5) the amount previously paid to the Subcontractor;
 - (6) the amount of the Pay Estimate Contractor will pay to each individual Subcontractor and/or supplier from payments Contractor receives on the request;
 - (7) the balance remaining under the subcontract to complete the Work.

- b. **Partial Waivers of Lien to Date and Contractor's Affidavit Form:** The Contractor must submit the Partial Waivers of Lien to Date and Contractor's Affidavit, in the form designated by the Commissioner, from all Subcontractors and suppliers indicating the total payment requested by each and for which payment has been previously received by them from funds paid to the Contractor by the City pursuant to prior Pay Estimates. The Contractor's Affidavit must be clearly identified with Pay Estimate number and period covered. The affidavit portion of the form must include the total amount invoiced by the Subcontractor and supplier to date. In the event that, after submitting a current Payment Estimate but before payment therefore by the City is received, the Contractor receives payment for a prior Pay Estimate, the Contractor shall secure appropriate waivers of lien from all Subcontractors and Suppliers whose total payment to date is affected thereby. Such waivers shall be updated to reflect receipt of said additional payment and Contractor shall tender such waivers to the City on or before the date payment of the current Pay Estimate is made.

- c. **MBE/WBE Utilization Report:** A status report of MBE/WBE subcontractor payments, as required by Part One of the Contract, must be submitted with each monthly Payment Estimate in the form required by the City. The submittal of the MBE/WBE Utilization report is in addition to the electronic reporting of MBE/WBE payments in the C2 system required by the Office of Compliance (OCX).

- d. **Certified Payrolls:** Certified payrolls for the payment period must be submitted by the Contractor and all the Subcontractors working on the job site to the Construction Manager every week. Additionally, any Apprentice payroll certifications must be submitted with the Certified Payroll. All the payrolls must be identified with Contractor's or Subcontractor's NAME, PROJECT DESCRIPTION AND PROJECT NUMBER, and be sequentially numbered. The payroll must be submitted by the Contractor and Subcontractors until all Work by that Contractor or Subcontractor is completed. If there are periods of no Work by a Contractor or Subcontractor, a payroll labeled "NO WORK" must be submitted. The final payroll must be clearly labeled "FINAL". Certified payrolls are required to ensure, among other things, EEO compliance, Chicago Residency compliance, Section 2-92-330 of the Chicago Municipal Code and compliance with the prevailing wage rate requirements of this Contract, Race, Work classification, and gender should be clearly marked for each employee on the certified payroll along with all additional information required by the Chief Procurement Officer. An employee's address should appear every time his or her name appears on the payroll. Contractor may be required to submit data electronically or online in accordance with the City's LCP Tracker System.

- e. The Contractor must submit to the Construction Manager, with each Pay Estimate, Payroll Canvass Reports (PCR's) on Exhibits B and C included in Part One of the Contract Documents. The Contractor must submit the PCR's to indicate its compliance with both the Contract's "Award Criteria Determination" commitments made for each trade in Part One and Chicago Residency Ordinance requirements set forth in Section XIX.S. of the General Conditions. A "Pay Period Canvass Report" must be prepared individually, by the Contractor and by each of its Subcontractors, on Exhibit B to indicate, on a weekly basis, hours of each trade utilized during each pay period by the Contractor and its Subcontractors on the project. A combined "Payroll Canvass Summary Report" will be prepared by the Contractor on Exhibit C to indicate accumulated hours of each trade utilized, to date, on the Project by the Contractor and all of its Subcontractors. The Contractor is responsible for the accuracy of information and all arithmetical calculations made in the Payroll Canvass Reports.
- f. Schedule Requirement: The Contractor will satisfy all requirements and submissions as described in Section VIII. E. "Baseline and Monthly Update Schedules."
- g. Subcontractor Payment Certification: The Contractor must submit a Subcontractor Payment Certification in a form approved by the Chief Procurement Officer. The Certification must list the estimated amount to be paid to each Subcontractor, supplier and the Contractor for the Payment Estimate period. The information provided in the certificate may be posted by the Chief Procurement Officer on the City's website. Vendor numbers must be shown for all companies listed.
- h. The Commissioner may, from time to time, require additional documentation to facilitate payment. Contractor will comply with any reasonable request for additional documentation.

D. Payment for Stored Material.

- 1. Payment of stored material on the project site will be one hundred percent (100%) of a valid invoice when the Contractor has complied with the following requirements and has:
 - a. Provided a paid invoice from the supplier showing the unit, quantity, description of the material or equipment and costs.
 - b. Provided a waiver of lien from the supplier for the total amount of the material purchased.
 - c. Provided inspection tickets for all the material stored.
 - d. Material invoices should reference, if applicable, the Contract line item for each item of material.
- 2. Payment for material stored off-site, if authorized in Part Three of the Contract, or when approved in writing by the Commissioner and Chief Procurement Officer, will be one hundred percent (100%) of a valid invoice when the Contractor has provided documents and complied with the requirements listed below.
 - a. Provided a paid invoice from the supplier showing the unit, quantity, description of the material or equipment and costs.
 - b. Provided a waiver of lien from the supplier for the total amount of the material purchased.
 - c. Provided inspection tickets for all the material stored.
 - d. Provided a Contractor-certified statement giving the exact location of the materials or equipment, and stating that:

(1) such materials are segregated, identified as City property, suitably stored and maintained at a bonded, secure and environmentally appropriate location agreed upon and subject to such conditions required or established by the Commissioner.

(2) the Contractor has complied with procedures satisfactory to the Commissioner to establish the City's title to such materials or otherwise protect the City's interest therein, including but not limited to, insurance, storage and transportation to the Project Site for such materials stored off-site, as the Commissioner may reasonably require.

(3) the materials, equipment and associated fabricated components will not be diverted away from the Project.

- e. The risk of loss will remain with the Contractor. The Contractor must provide the Construction Manager with a certificate of insurance coverage for the stored material upon which payment is requested.
- f. Simultaneously with payment for such material, and in addition to the Contractor's certification required by paragraph 2.d(2) above, the Contractor must prepare and execute any and all documents required to transfer title to the City, including without limitation, any Uniform Commercial Code Documentation necessary to perfect transfer of title. However, nothing in this Article IX is intended or shall be construed to modify and/or accelerate the date on which any warranty of the materials is to commence as may elsewhere be specified by the Contract Documents.
- g. All material and Work covered by payments made will there upon become the sole property of the City.
- h. The Contractor must pay the CDA's reasonable costs for consultants or attorneys relating to administration of the payment for material stored off site, to verify and review required filings and documents, inspect materials, and travel. Travel costs are to be paid based upon the current City Travel Guidelines.

E. Retainage.

Pursuant to the Chicago Municipal Code provision entitled Retainage in Title 2, Ch. 2-92, Sect. 2-92-250 and 49 CFR 26.29, no retainage shall be withheld by the city. As a matter of prompt payment to subcontractors as required by Section IX.H, Contractor must not withhold retainage from subcontractors in any form, including but not limited to administrative fees.

F. Payments Withheld.

1. No payment shall be made to the Contractor until certificates of insurance, bonds, or other evidence of compliance by the Contractor with all the requirements of the Contract for insurance and bonds have been provided to the Commissioner. Further, no payments on the basis of Work performed by a Subcontractor shall be paid until copies of all bonds required and any certificates of insurance required of the Subcontractors by the Contract have been filed with the Commissioner.
2. The Commissioner may decline a Pay Estimate if, in the Commissioner's opinion, the Pay Estimate is not adequately supported. If the Contractor and Commissioner cannot agree on a revised amount, the Commissioner will process the Pay Estimate in the amount the Commissioner deems appropriate.
3. The Commissioner may decline to process any Pay Estimate or may rescind in whole or in part any approval previously made to such extent as may be necessary in the Commissioner's opinion because of any failure of the Contractor to perform any obligation under the Contract, including but not limited to:
 - a. The Contractor's failure or refusal to provide the Commissioner the required Project Baseline Schedule for the Work or Monthly Update Schedule and obtain the Commissioner's approval for either as required by the Contract.
 - b. The Contractor's failure to remedy defective Work.
 - c. The Contractor's failure to make prompt payments properly to Subcontractors, employees, or material suppliers or for labor, materials or equipment, or provide partial lien waivers with pay estimates.
 - d. The Contractor's failure to maintain progress of the Work as required in the current approved Baseline Schedule, or failure to carry out the Work in accordance with the Contract as determined by the City.
 - e. The Contractor's refusal to follow City, state, federal, or Contract safety and security requirements.
 - f. The Contractor's failure to provide a plan to meet the requirements of the Chicago Residency Ordinance.
 - g. The Contractor's failure to remove equipment, materials, concrete batch plants or asphalt batch plants from the Airport as directed by the Commissioner.
4. Pursuant to 2-92-270 of the Municipal Code of the City of Chicago, the Chief Procurement Officer may also notify the Contractor that payments to the Contractor will be suspended if the Chief Procurement Officer has determined that the Contractor has failed to pay any Subcontractor, employee, or workman, for Work performed. If Contractor has not cured a failure to pay a Subcontractor, employee or workman within 10 days after receipt of such notice, the Chief Procurement Officer may request the Comptroller to apply any money due, or that may become due, to Contractor under the Contract to the payment of such Subcontractors, workmen, and employees and the effect will be the same, for purposes of payment to Contractor of the Contract Price, as if the City had paid Contractor directly. Further, if such action is otherwise in the City's best interests, pursuant to 2-92-245 of the Municipal Code of the City of Chicago, the Chief Procurement Officer may (but is not obligated to) request the Comptroller to make direct payments to Subcontractors for monies earned on contracts and the effect will be the same, for purposes of payment to Contractor of the Contract Price, as if the City had paid Contractor directly. The City's election to exercise or not to exercise its rights under this paragraph shall not in any way affect the liability of the Contractor or its sureties to the City or to any such Subcontractor, workman, or employee upon any bond given in connection with such Contract.

5. The City's rights under Section IX.F are cumulative to any other rights provided under the Contract.

G. Final Payment

1. Final payment shall not be made until all of the tasks called for in the subcontract have been accomplished and documented as required. Upon Substantial Completion of the Project, the Contractor must notify the Construction Manager, in writing, that the Project will be ready for inspection and/or testing on a definite date. Notice will be given at least fifteen (15) calendar days in advance of said date. If the Construction Manager concurs that the Project will be ready for inspection, testing, and/or Commissioning on the date given and recommends an inspection to the Commissioner, the Commissioner and other parties will make such inspection as is convenient for all parties, but within a reasonable period of time. The scheduling of the inspection, testing, and/or Commissioning to determine whether the Project is Substantially Complete shall not relieve the Contractor of its responsibilities under the Contract Documents. The Contractor is required to furnish access for the inspection, testing, and/or Commissioning. Contractor must also provide: (a) MBE/WBE final lien waivers, MBE/WBE conditional final lien waivers, or an affidavit of the MBE or WBE stating the final amount earned; (b) complete certified payrolls; (c) spare stock of materials, spare parts, accessories, special tools, O&M manuals, manufacturer's warranties; and (d) all other items required by the Contract Documents or the Commissioner for achievement of Substantial Completion.
2. Final payment will be made only when all remaining Work and Punch List Work is complete and the Contractor submits to the Construction Manager a sworn affidavit that states the following:
 - a. All payrolls, bills for materials and equipment, and all other indebtedness connected with the Work for which the City might in any way be responsible, have been paid or otherwise satisfied.
 - b. The "Contractor's Sworn Statement and Affidavit has been provided to the Construction Manager.
 - c. All claims made by Subcontractors of any tier, suppliers, and others against the Contractor, the City, any agents of the City, the Commissioner or Construction Manager have been resolved.
 - d. "Final Waiver of Lien and Contractor's Affidavit" forms for all Subcontractors of any tier have been provided to the Construction Manager.
 - e. The Warranties and Guarantees, required by the Contract, have been provided to the Construction Manager.
 - f. All Warranties and Guarantees are in full force and effect.
 - g. The surety's written consent, signed by its authorized representative, for final payment to be made directly to the Contractor, has been provided to the Construction Manager.

- h. The Contractor agrees that acceptance of final payment will constitute a general release to the City, its representatives, officials and employees of all claims of liability for anything done or furnished or relating to the Work of the Contract or for any act or neglect of the City or its agents officials and employees relating to or connected with the Contract.
 - i. As-Built documentation including but not limited to As-Built Contract drawings, As-Built Shop Drawings and Operation and Maintenance Manuals have been provided to the Construction Manager as required by Article XII.E.
 - j. All sustainability-related documentation and, where required, final SAM Construction Checklist has been provided.
 - k. All other documents requested by the Commissioner have been provided.
3. As a prerequisite to receive payment of the, the Contractor must also comply with the following.
- a. The Contractor must remove all of the Contractor's trailers, equipment, leftover materials, and trash from the Project site, staging area(s) or anywhere else on the Airport. The Contractor must also restore the Contractor's staging area(s) to its pre-construction condition. If the Contractor does not comply with this requirement, the Commissioner may provide written notice to comply within a period of time determined by the Commissioner. If the Contractor fails to comply with the written notice, the Commissioner may have the work done by others, and deduct the charge from payments due to Contractor on this or any other City Contract
 - b. The Contractor must return all Airport Security Badges that have been issued to all of the Contractor's employees and all of its Subcontractors' employees of any tier. If there are any badges the Contractor does not or is unable to return, the Contractor will provide the name(s) of the individual(s) and a written explanation stating the reason the badge was not returned. The Commissioner will determine whether the Contractor has complied with this requirement and may deduct from payments due to Contractor under this or any other contract the amount then charged for lost badges pursuant to the Chicago Municipal Code, 10-36-56.

H. Prompt Payment to Subcontractors.

1. Incorporation of Prompt Payment Language in Subcontracts. Contractor must state the requirements of these Prompt Payment provisions in all Subcontracts and purchase orders. If Contractor fails to incorporate these provisions in all Subcontracts and purchase orders, the provisions of this Section are deemed to be incorporated in all Subcontracts and purchase orders. Contractor and the Subcontractors have a continuing obligation to make prompt payment to their respective Subcontractors. Compliance with this obligation is a condition of Contractor's participation and that of its Subcontractors on this Contract.
2. Payment to Subcontractors Within Seven Days. The Contractor must make payment to its Subcontractors **within 7 days** of receipt of payment from the City for each invoice, but only if the Subcontractor has satisfactorily provided goods or services or completed its work or services in accordance with the Contract Documents and provided the Contractor with all of the documents and information required of the Contractor. The Contractor may delay or postpone payment for a to a Subcontractor when the Subcontractor's work or materials do not comply with the requirements of the Contract Documents, the Contractor is acting in good faith, and not in retaliation for a Subcontractor exercising legal or contractual rights.
3. Reporting Failures to Promptly Pay. The City posts payments to prime contractors on the web at:
[http://webapps.cityofchicago.org/VCSearchWeb/org/cityofchicago/vcsearch/controller/payments/begin.do?agencyld=city.](http://webapps.cityofchicago.org/VCSearchWeb/org/cityofchicago/vcsearch/controller/payments/begin.do?agencyld=city)

If the Contractor, without reasonable cause, fails to make any payment to its Subcontractors and material suppliers within 7 days after receipt of payment under a City contract, the Contractor shall pay to its Subcontractors and material suppliers, in addition to the payment due them, interest in the amount of 2% per month, calculated from the expiration of the 7-day period until fully paid.

In the event that a Contractor fails to make payment to a Subcontractor within the 7-day period required above, the Subcontractor may notify the City by submitting a report form that may be downloaded from the DPS website at:

http://www.cityofchicago.org/content/dam/city/depts/dps/ContractAdministration/StandardFormsAgreements/Failure_to_Promptly_Pay_Fillable_Form_3_2013.pdf

The report will require the Subcontractor to affirm that (a) its invoice to the Contractor was included in the payment request submitted by the contractor to the City and (b) Subcontractor has not, at the time of the report, received payment from the contractor for that invoice. The report must reference the payment (voucher) number posted on-line by the City in the notice of the payment to the contractor.

Subcontractors are hereby reminded that per Chapters 1-21, "False Statements," and 1-22, "False Claims," of the Municipal Code of Chicago, making false statements or claims to the City are violations of law and subject to a range of penalties including fines and debarment.

4. Whistleblower Protection. Contractor shall not take any retaliatory action against any Subcontractor for reporting non-payment pursuant to this Sub-Section 3.2.3. Any such retaliatory action is an event of default under this Contract and is subject to the remedies set forth in Section 3.5 hereof, including termination. In addition to those remedies, any retaliatory action by a contractor may result in a contractor being deemed non-responsible for future City contracts or, if, in the sole judgment of the Chief Procurement Officer, such retaliatory action is egregious, the Chief Procurement Officer may initiate debarment proceedings against the contractor. Any such debarment shall be for a period of not less than one year.
5. Liquidated Damages for Failure to Promptly Pay. Much of the City's economic vitality derives from the success of its small businesses. The failure by contractors to pay their subcontractors in a timely manner, therefore, is clearly detrimental to the City. Inasmuch as the actual damages to the City due to such failure are uncertain in amount and difficult to prove, Contractor and City agree that the Chief Procurement Officer may assess liquidated damages against contractors who fail to meet their prompt payment requirements. Such liquidated damages shall be assessed to compensate the City for any and all damage incurred due to the failure of the Contractor to promptly pay its subcontractors, and does not constitute a penalty. Any and all such liquidated damages collected by the City shall be used to improve the administration and outreach efforts of the City's Small Business Program.
6. Action by the City. Upon receipt of an electronic report of a failure to pay, the City will issue notice to the contractor, and provide the contractor with an opportunity to demonstrate reasonable cause for failing to make payment within applicable period set forth in the Contract. The Chief Procurement Officer, in his or her sole judgment, shall determine whether any cause for nonpayment provided by a contractor is reasonable. In the event that the contractor fails to demonstrate reasonable cause for failure to make payment, the City shall notify the contractor that it will assess liquidated damages. Any such liquidated damages will be assessed according to the following schedule:

| | |
|--------------------------|-------|
| First Unexcused Report: | \$50 |
| Second Unexcused Report: | \$100 |

| | |
|---|---------|
| Third Unexcused Report: | \$250 |
| Fourth Unexcused Report: | \$500 |
| Fifth and Each Succeeding Unexcused Report: | \$1,000 |

The liquidated damages set forth above shall be assessed per unexcused report per contract, i.e., each successive report regarding a contractor's failure to pay under this Contract will be assessed liquidated damages, regardless of which subcontractor files the unexcused report(s).

By executing this Agreement, Contractor acknowledges and agrees that the City may collect such damages by deducting any amount due to the City from the next payment to be made to the Contractor. In the event that no further payments are due to Contractor, Contractor agrees to promptly pay such liquidated damages as it may owe to the City. Failure to make such payment within thirty (30) days of receipt of notice of the assessment of liquidated damages may result in Contractor being debarred from participating in City contracts for a period of not less than one year.

Contractors are reminded that each unexcused failure to pay promptly is an event of default under the Contract and, in addition to the liquidated damages provided for in this Section, is subject to the remedies found in Section XVIII.D of this Contract. Contractors are further reminded that per Section 2-92-270 of the Municipal Code of Chicago, failure to pay subcontractors as required by law and the Contract may result in the City suspending payments to Contractor and making direct payments to such subcontractors. Any such direct payments shall be from funds due and owing to the contractor.

If the Chief Procurement Officer determines that the circumstances pertaining to a contractor's failure to pay promptly warrant excusing such non-performance, or determines that excusing such non-performance is in the best interests of the City, the Chief Procurement Officer may waive any of the remedies provided in this Section IX.H. Each such waiver is discrete, non-precedential and does not constitute a waiver of any subsequent remedies against a contractor who fails to comply with the terms and conditions set forth herein.

I. Pay Estimates and Payments Subject to Review.

1. The City shall not be precluded or estopped by any measurement, estimate, or certificate made by Contractor or any Subcontractor either before or after the completion and acceptance of the Work and payment for that Work, from showing the true amount and character of the Work performed and materials furnished by the Contractor, or from showing that any such measurement, estimate, or certificate is untrue or incorrectly made, or that the Work or materials do not conform in fact to the Contract. The City will not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor and its sureties such damages as the City may sustain by reason of the Contractor's failure to comply with the terms of the Contract.

END OF IX

X. CHANGES IN THE WORK

A. City's Right to Change Work.

The City reserves the right to direct, by written Field Order, changes in the Work or Contract time, or the Baseline Schedule without prior notice to the Contractor's surety and the Contractor is obligated to perform in accordance with the Field Order. These changes may consist of additions, deletions, or other revisions to the Work and/or changes in the Contract Completion Date, at the discretion of the City, with the Contract Price and/or the Contract Completion Date and/or the Baseline Schedule being adjusted as appropriate. The Contractor must begin the changed work upon receipt of a Field Order. A Field Order is a written order to the Contractor, signed by the Construction Manager with the prior approval of the Commissioner and Chief Procurement Officer. The Contractor must begin the changed work upon receipt of the signed Field Order. Pursuant to Section 2-92-730(d) of the Municipal Code of Chicago, for each Field Order which, by itself or aggregated with previous Field Orders, increases the Contract value by ten percent (10%) of the initial Contract value or Fifty Thousand Dollars (\$50,000), whichever is less, the Contractor will make good faith efforts to increase the participation of MBE/WBE Subcontractors already participating in the Contract.

B. Contractor's Request.

The Contractor must submit to the Construction Manager written copies of any request for adjustment to the Contract Price, Contract time and/or Baseline Schedule for such changed Work promptly as required by Article X.

C. Payment for Changes.

The adjustment in Contract Price, if any, for changes (either additions, deletions or revisions) in the Work or Contract time or changes to the Baseline Schedule, shall be made in accordance with sections 1 through 3 below. Where changes in the Work involve both additions and deletions, any percentage mark-ups applicable to labor and materials as set forth below shall be applied to the net difference. An adjustment in Contract Price and/or Contract time requires a Contract Modification pursuant to Section X.D. Payment for a Contract Modification will be made after the Contract Modification is executed by the City. The Commissioner may require additional documentation to facilitate approval for changes in the work. Contractor will comply with any request for additional documentation.

1. Unit Price Basis: To the extent that such changes in the Work result in an increase or decrease in the quantities of unit priced Work to be performed, the adjustment in Contract Price will be as follows:
 - a. All increases or decreases in such Work of the type that appears in the Contract as unit price items shall, except as provided in paragraph (b.) below, be paid for or deducted at the Contract unit prices as bid by the Contractor.
 - b. For line items that represent (10%) or more of the original Contract Price, and actual quantities of these line items represent a twenty-five percent (25%) or more variance from the bid quantities, but are not deleted in their entirety, the Contract Price adjustment will be based on a negotiated unit price based on costs which are demonstrated by the Contractor and agreed to by the Commissioner, subject to approval of the Chief Procurement Officer, in a method consistent with paragraph C.2 " Proposal Basis".

The negotiated unit price can be higher, lower, or equal to the unit price as bid by Contractor.

If the Commissioner and Contractor are unable to agree on a negotiated unit price, the Commissioner shall determine a reasonable unit price to be incorporated by a Contract Modification, which shall be prepared by the Commissioner and signed by the Contractor for submission to the City for execution. However, the Contractor may dispute the amount of the unit price determined by the Commissioner as a Change Claim pursuant to Section X.G.

- c. For line items that represent ten percent (10%) or more of the Contract Price, and are deleted in their entirety, the Contractor will only be compensated for any materials or equipment that were ordered in accordance with the approved Baseline Schedule and approved submittal prior to Contractor's receipt of the notice of deletion of the line item, providing that the materials and equipment order could not be cancelled, nor returned to the supplier less restocking fees and also provided that the materials and equipment are delivered to the City, found acceptable, and are adequately protected for storage. Contractor shall not be entitled to any lost profits on Work that was deleted, or any other costs or compensation.
 - d. The Contractor must provide a breakdown by Contract line item listing the total percentage of each line item attributable to a M/WBE firm.
2. Proposal Basis: To the extent that there are no unit prices for the changed Work, either as bid or as identified in an approved Breakdown of a lump sum, the Contract Price adjustment for the changed Work may be based upon a price agreed to by the City and Contractor.

If the changed Work is to be completed on a proposal basis, a proposal for the changed Work must be provided by the Contractor to the Construction Manager and accepted by the Commissioner prior to the date on which the changed Work is fifty percent (50%) complete. Until such time a proposal is agreed to by the City, the Contractor will submit a Time and Material Work Report as required in Paragraph X.C.3 below. In addition, if the Commissioner has not accepted the proposal for the changed Work prior to the commencement of the changed Work, time and material work reports must be maintained by the Contractor, as required by Section X.C.3.n., until a proposal is agreed to by the Contractor and City through the signing of a Contract Modification. If there is no agreement between the Contractor and City as to the Contract Price adjustment and/or Contract time adjustment for the changed Work on a proposal basis prior to the completion of fifty percent (50%) of the changed Work, the changed Work will be paid for on a time and material basis as provided for under Section X.C.3.

Proposal Pricing: The proposal submitted shall be a starting point for negotiation between the City and Contractor. Any proposal submitted in writing by the Contractor for consideration for changed Work to be done must be broken down into segments of cost as follows:

- a. Labor: Number of proposed labor hours multiplied by the base wage plus an amount not to exceed thirty percent (30%) to cover jobsite general conditions, overhead, and profit. All indirect costs must be part of the overhead, including but not limited to supervision, engineering, safety, surveying, quality control, and other technical personnel. Fringe benefits, as allowed by the applicable labor union, multiplied by the proposed number of labor hours, plus an amount up to ten percent (10%) of the total fringe benefit may be allowed.
- b. Insurance and Payroll Taxes: Cost for property damage, liability, and workman's compensation insurance premiums, unemployment insurance contributions and social security taxes on the extra Work, to which an amount not to exceed ten percent (10%) of the cost of these items will be added. The Contractor must furnish satisfactory evidence of the rate or rates paid for such insurance and taxes.

- c. **Material:** Cost of materials plus an amount not to exceed fifteen percent (15%) of the cost of material to cover profit and handling charges of contractor performing the Work. Material cost must be supported by quotations from the suppliers and must be net of any discounts or rebates offered by the suppliers.
- d. **Equipment:** For equipment owned by the Contractor, costs will be determined by the number of proposed equipment hours multiplied by the rate as allowed by the latest revision of "Equipment Watch Rental Rate Blue Book" as issued by Equipment Watch. Equipment rates as allowed by the latest revision of Equipment Watch Rental Rate Blue Book shall be the total Federal Highway Administration (FHWA) hourly rate. Idle equipment shall consist of the percentage sum of the following elements: depreciation, cost of facilities capital (CFC) and indirect cost multiplied by the hourly rate. For equipment rented by Contractor, rates will be determined by the Equipment Distributors' Compilation Of Rental Rates (AED Green Book) for the period that said machinery and equipment are to be used on such Work, to which no percent will be added. Where machinery and equipment are not listed in these schedules, then the rates will be determined by the Commissioner after reviewing all available records of the Contractor or other information concerning the expense of operating that type of equipment.
- e. **Cost for Increase in Performance Bond:** The Contractor must furnish the Construction Manager written documentation from the bonding company of the rate or rates applicable for additional bonding for this Contract. These rate/rates will be applied to all the changes increasing or decreasing the Contract Price to which no mark-up will be added. No bonding costs will be allowed for Subcontractors. In the absence of written documentation from the bonding company, a percentage of the total change will be added or subtracted, as determined by the Commissioner and Chief Procurement Officer, to cover the increase or decrease of the cost of the bond. No bond costs will be applied to proposal pricing for Contract allowances. Bond costs are acceptable if an increase is required to a Contract allowance.
- f. **When Work is to be performed by a single Subcontractor or multiple subcontractors,** the proposal may include as administrative costs an amount not to exceed ten percent (10%) of the first ten thousand dollars (\$10,000.00) and five percent (5%) of any amount over ten thousand (\$10,000.00) of the total approved costs of such Work. The Subcontractor, however, is not allowed any additional markup if it subcontracts its Work to a third party. The use of a Subcontractor will require the approval of the Chief Procurement Officer. All subcontracted costs must be supported by proposals from the Subcontractors performing the Work. The Subcontractor's proposal must be broken down into its various parts of Work as described in items a) through d) above, or as required by the Commissioner.
- g. **MBE/WBE/ Breakdown:** The Contractor must provide a breakdown by cost with each proposal outlining the total dollar amounts to be paid to itself and each Subcontractor/Supplier pertaining to the changed work. This breakdown must distinguish each Subcontractor/Supplier by its minority status (i.e. Non-Minority, MBE/WBE).

3. **Time and Material Basis:**

Procedure: The Construction Manager will provide the Contractor with daily Work Report forms for use on the project. Time and Material Work Reports will be used for all changed work that does not have an approved proposal. Time and Material Work Reports are also required for all work the Contractor feels is out of the Contract scope and plans to claim. If the changed Work is not subject to unit pricing and the City and Contractor cannot agree on a price based on a proposal prior to the time the Work is 50% complete, the Work shall be paid for on a time and material basis. The Contractor must notify the Construction Manager of all Time and Material Work in advance in order for work to be verified. The Contractor will fill in detailed information on the Work Report and have it signed by the

Construction Manager at the end of the shift. The Contractor will submit the Work Report to the Construction Manager within twenty-four (24) hours of completion. All invoices for changed Work must be submitted by Contractor within fifteen (15) days after completion of the changed work. Contractor's failure to provide a complete invoice for the changed Work within that period will authorize the Commissioner, subject to the approval of the Chief Procurement Officer, to determine the final amount for the Contract modification which may be awarded without the signature of the Contractor.

Time and Material Billing:

- a. Labor: For all hourly wage labor and hourly wage foremen in direct charge of the specific operations, the Contractor shall be entitled to receive the actual hourly wage rate paid for every hour that said labor and foremen are actually engaged in such Work. No additional allowance or payment will be made for general superintendence. All indirect costs must be part of the overhead, including but not limited to supervision, engineering, safety, surveying, quality control, and other technical personnel. No additional compensation beyond the 30% will be allowed.
- b. The Contractor shall receive the actual costs paid to, or in behalf of, workers for health and welfare benefits, pension fund benefits or other benefits, when such amounts are required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the Work.
- c. An amount equal to thirty percent (30%) of above 3a. and an amount equal to ten percent (10%) of above 3b. will also be paid to the Contractor to cover jobsite general conditions, overhead, and profit.
- d. No payment will be made for labor performed on a time and material basis until the Contractor has furnished the Construction Manager with itemized statements of the labor cost as follows:
 - (1) Name, classification, date, daily hours, total hours, rate and extension for each journey worker, apprentice and foreman.
 - (2) Certified payrolls or certified copies thereof, pertinent to the Work for which payment is requested. The payroll records will contain the name, address and social security number of each employee, the employee's correct classification, rate of pay, daily and weekly number of hours worked, itemized deductions made and actual wages paid. The labor rates will be audited and corrected against the certified payrolls. Falsification of the certified payroll is an offense punishable by law.
- e. Insurance and Payroll Tax: For property damage, liability, and workers compensation insurance premiums, unemployment insurance contributions and social security taxes on the time and material Work, the Contractor shall receive the actual costs, to which ten percent (10%) will be added. No payment will be made for insurance and payroll taxes until the Contractor has furnished satisfactory evidence of the rate or rates paid for such insurance and tax.
- f. Materials: For materials accepted by the Commissioner and used as an integral part of finished Work, the Contractor shall receive the actual costs of such materials delivered on the job site, including transportation charges paid by him (exclusive of machinery rentals as hereinafter set forth), as shown by original receipted bills, to which fifteen percent (15%) will be added to the first ten thousand dollars (\$10,000.00) and ten percent (10%) for any amounts over ten thousand dollars (\$10,000.00).
- g. The Contractor will be reimbursed for any materials used in the construction of the Work, such as sheeting, falsework, form lumber, burlap, or other materials for curing, etc., which are not an integral part of the finished Work. The amount of

reimbursement must be agreed upon in writing before such Work is begun and no percent shall be added. The salvage value of such materials shall be taken into consideration in the reimbursement agreed upon.

- h. No payment will be made for material costs until the Contractor has furnished itemized statements of the material costs, which must include:
 - (1) Quantities of materials, prices, and extension.
 - (2) Material transportation costs supported by receipted invoices.
 - (3) Receipted invoices for all materials used. However, if materials used on the time and material Work are not specifically purchased for such Work but are taken from the Contractor's stock, then in lieu of the invoices, the Contractor must furnish an affidavit certifying that such materials were from its stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor. The price quoted for such material must be reasonable and acceptable as per the normal industry practice.
- i. Equipment: For equipment owned by the Contractor, costs will be determined by the number of proposed equipment hours multiplied by the rate as allowed by the latest revision of "Equipment Watch Rental Rate Blue Book" as issued by Equipment Watch. Equipment rates as allowed by the latest revision of Equipment Watch Rental Rate Blue Book shall be the total Federal Highway Administration (FHWA) hourly rate. Idle equipment shall consist of the percentage sum of the following elements: depreciation, cost of facilities capital (CFC) and indirect cost multiplied by the hourly rate. For equipment rented by Contractor, rates will be determined by the Equipment Distributors' Compilation of Rental Rates (AED Green Book) for the period that said machinery and equipment are to be used on such Work, to which no percent will be added. Where machinery and equipment are not listed in these schedules, then the rates will be determined by the Commissioner after reviewing all available records of the Contractor or other information concerning the expense of operating that type of equipment.
- j. When equipment is rented, the Contractor shall receive actual rental cost as shown by original receipted bills to which five percent (5%) shall be added which shall compensate Contractor for standard operating costs, including but not limited to: routine servicing and repair, service and lube labor, fuel, lubricants, filters, tires, tire service, and lube trucks. No additional compensation for ordinary operating expenses will be allowed.
- k. No payment will be made for equipment not shown on the Daily Work Report (see C.3.n below). No payment will be made unless designations, dates, daily hours, rental rates, and extensions for each unit of machinery and equipment are shown on the itemized statement of time and material Work.
- l. Bond: The City will pay the Contractor the actual increase in cost of its performance bond. The Contractor must furnish from the bonding company written documentation of the rate or rates applicable for additional bonding for this Contract. These rate/rates will be applied to all the changes increasing or decreasing the Contract Price to which no percent will be added. No bonding costs will be allowed for Subcontractors. In the absence of written documentation from the bonding company, a percentage of the total change will be added or subtracted, as determined by the Commissioner and Chief Procurement Officer, to cover the increase or decrease of the cost of the bond. No bond costs will be applied to Time & Materials pricing for Contract allowances. Bond costs are acceptable if an increase is required to a Contract allowance.

- m. When Work is performed by a single Subcontractor or multiple Subcontractors, the Contractor shall receive as administrative costs an amount equal to ten percent (10%) of the first ten-thousand dollars (\$10,000.00) and five percent (5%) of any amount over ten-thousand dollars (\$10,000.00) of the total approved costs of such Work. The Subcontractor or Subcontractors are not allowed any additional markup. All subcontracted costs must be supported by invoices from the Subcontractors performing the Work. The Subcontractors' invoices must be submitted in the form described in Section X.C.3.a. through m.
- n. Documentation: For additional Work performed on a time and material basis the Contractor must each day submit to the Construction Manager detailed and complete records of the labor, material, equipment, and other costs relating to any force account Work performed on the previous day. These Daily Work Reports are to be submitted in the format designated by the Commissioner and must be signed by the Contractor and the Construction Manager. Failure of the Contractor to submit Daily Work Reports to the Construction Manager within 24 hours after the completion of the shift's work may, at the sole discretion of the Commissioner, cause these reports to be rejected and disqualified for payment.
- o. MBE/WBE/ Breakdown: The Contractor must provide a breakdown by cost with each proposal outlining the total dollar amounts to be paid to itself and each Subcontractor/Supplier pertaining to the changed work. This breakdown must distinguish each Subcontractor/Supplier by its minority status (i.e. Non-Minority, MBE/WBE).

p. Base Contract Work on a Premium Time Basis:

- (1) Premium Time costs will be paid, for Contract Work performed outside of regularly scheduled working hours as defined by the Contract Documents, only if expressly directed in writing by the City prior to the Contractor commencing the Work.

Compensation, when authorized, shall cover only the direct cost of the premium portion of the time involved and shall be without any charge for insurance. No payment will be made for union fringe benefits on the premium portion of the time unless expressly required by union agreement. Taxes, which are attributed to the premium portion of the time, will be paid. If taxes are charged by the Contractor, the Commissioner may require the Contractor to supply verification that the employees' Social Security Tax, Federal Unemployment Tax, and State Unemployment Tax limits have not been exceeded.

- (2) An amount equal to seven percent (7%) of the sum of the premium portion of the work plus taxes will also be paid to the Contractor or Subcontractor performing the work to cover jobsite general conditions, overhead, and profit. All indirect costs shall be part of the overhead, including but not limited to supervision, engineering, and other technical personnel.
- (3) If the Contractor enters into a subcontract, the Contractor will be allowed an additional two percent (2%) of the Subcontractor's premium time billing to cover the Contractor's supervisory and related expense on subcontract operations. The Subcontractor is not allowed the additional two percent (2%) if it sublets its Work.
- (4) Daily Work Reports in the format designated by the Commissioner for the premium time hours must be kept and signed daily (in the format designated by the Commissioner). The reports must indicate the time of day when the Work was performed and wage rate differential that will be charged. Billings must reflect hours reported on Daily Work Reports.

4. Changes on Lump Sum Contracts or Lump Sum Items in Unit Priced Contracts:

All increases or decreases in elements of the Work, that are listed in the Contract Price breakdown as unit prices or that can otherwise be assigned a value based on the approved Contract Price breakdown will be compensated, for the purpose of any change, based on those prices.

5. Miscellaneous:

- a. For the purpose of this section, any business entity, which employs field labor and performs Contract Work on the job site, is defined as a Subcontractor. (Suppliers/deliverers of materials are not considered as field labor).
- b. When the extra Work involves only supply of material without any field labor at the job site, the supplier, for the purposes of this section, will be considered as a Subcontractor and the mark up as specified in Section X.C.3, f will apply.
- c. Expenses incurred by the City: Upon written request of the Commissioner and Chief Procurement Officer, the Contractor will pay the bills that are the responsibility of the City. The Contractor will be reimbursed for the actual amount paid out to which will be added a mark-up as specified in Section X.C.3 above.
- d. Any adjustment in Contract time due to changed Work will be based on the impact that the changed Work has on critical path items in the Monthly Update Schedule.

D. Contract Modification.

The final terms of any adjustment in Contract Price and/or Contract Completion Date relating to changed Work must be incorporated into a written Contract Modification executed by the City and Contractor (except as provided in Section X.C.3). Contract Modifications resulting in Contract Price adjustments in excess of \$5,000 require execution by the Mayor, the Comptroller and the Chief Procurement Officer. Payment for Contract Modifications and/or an adjustment in Contract Completion Date will be made after the Contract Modification is executed by the City.

E. Contractor's Release.

Except as otherwise agreed to by the Commissioner and Chief Procurement Officer, each Contract Modification shall constitute a full release to the City from granting any additional compensation or extension of time arising or resulting from the Contract Modification. The release that the Contractor must sign will state, "By executing this Contract Modification, Contractor certifies that it has reviewed and accepts the compensation and/or time extension provided in full accord and satisfaction for this Contract Modification and that it expressly waives and releases any and all additional claims and demands relating to, or arising out of, the matters covered by this Contract Modification as more fully described in the exhibit attached hereto including but not limited to: direct, indirect, overhead, home or field office costs; profits; damages; disruptions and impact."

F. Failure to Comply with Order.

The Contractor must promptly proceed with any changes in the Work or Project Schedule or Contract time as directed by Field Order in writing, in accordance with Section X.A, with or without the Contract Modification. The Contractor's refusal or failure to proceed promptly with the changed Work or changes in the Project Schedule as directed will constitute an event of default under the Contract.

G. Change Claims.

1. If the Contractor and the Construction Manager are unable to agree upon an adjustment in Contract Price and/or Contract Completion Date for changed Work in accordance with

Section X.C, which is executed by the City under Section X.D, the Contractor may make a claim for the changed work under this Section X.G. ("Change Claims") The Contractor expressly consents to both the time requirements and notice content requirements for making a Change Claim under this Section X.G. The Contractor acknowledges that the notice requirements set forth in this Section X.G. shall be strictly enforced and agrees that any failure on the part of the Contractor to provide notice strictly in accordance with the requirements of this Section X.G constitutes a waiver of the Contractor's right to make a Change Claim for changes in the Work or to file a dispute to the Chief Procurement Officer under Article XVII. The Contractor further understands and agrees that, notwithstanding any case law decision to the contrary, the notice requirements of this Section X.G. shall not be subject to or diminished by any claim on the part of the Contractor that the City or any person acting on behalf of the City directed the Contractor to make changes in the Work or had actual or constructive knowledge of any changes in the Work. The Contractor further acknowledges that the time requirements and notice content requirements of Section X.G. have the purpose, among others, of allowing the City to evaluate Change Claims contemporaneously with the work that is the subject of the Change Claim.

2. If the Contractor and Construction Manager are unable to agree on the price and/or time in connection with a change to the Work pursuant to a Field Order or attributable to direction from the Construction Manager on how and when to proceed, after notification by the Contractor of differing site conditions, the Contractor must, within fifteen (15) days of completing the changed Work directed by Field Order or attributable to differing site condition(s), provide written notice to the Construction Manager of the amount of money and/or time sought by the Contractor indicating the contractual and factual basis for each and designate such as a "Notice of Claim".
 3. The Construction Manager shall, within thirty (30) days from receipt of the Notice of Claim, respond by: requesting a meeting with the Contractor; making a written request for additional information from the Contractor, including but not limited to a general statement of the basis for the claim, the facts underlying the claim, the notice to the Construction Manager of the change that gave rise to the claim, reference to the applicable Contract provisions, and all documentation that describes, relates to and supports the claim; taking other action to attempt to resolve the Notice of Claim, and/or advising the Contractor in writing that it should file a Claim under Article XVII, Claims and Disputes. Any steps taken by the Construction Manager to resolve the Notice of Claim shall not exceed sixty (60) days from receipt of the Notice of Claim unless the Contractor agrees to an additional amount of time in writing. The Contractor and Construction Manager may agree on a proposed adjustment of Contract Price and/or Contract Completion Date in resolution of a Notice of Claim, which proposal is subject to approval by the City in a Contract Modification under the requirements of Section X.D.
 4. If the Notice of Claim cannot be resolved as provided for in Section X.G., the Contractor must follow the requirements of Section XVII.A, "Claims" and XVII.B, "Disputes".
 5. If the Contractor does not agree with the adjustment for time and/or compensation proposed by the Construction Manager, the Contractor must follow the procedures set out by the Contract to file a Claim and/or Dispute as provided in Article XVII. If the Contractor does not follow the procedures set out by the Contract to file a Claim and/or Dispute as provided in Article XVII, the failure to do so constitutes a waiver of the right to make a Claim or file a Dispute to the Chief Procurement Officer. In the event of the Contractor's waiver, the Commissioner may file a Dispute, pursuant to Section XVII.B, with the Chief Procurement Officer seeking a final decision of the Chief Procurement Officer regarding adjustment in the Contract Price and/or Contract time for the changed Work.
- H. City Audit.
All documents, records, books, and accounts, relating to changes in the Work are subject to the audit provisions of Article XII.D.2.

END OF X

XI. SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

A. Definitions.

1. "Shop Drawings" are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or any Subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work. The term "Shop Drawings" as used herein includes, but is not limited to: fabrication, erection, layout and setting drawings; manufacturers' standard drawings; schedules; wiring and control diagrams; and other drawings pertaining to materials, equipment and piping; duct and conduit systems; and methods of construction as may be required to show that the materials, equipment or systems and the position thereof conform to the Contract's requirements. Shop Drawings will establish the actual detail of all manufactured and fabricated items and indicate the proper relation to adjoining Work.
2. "Product Data" are illustrations, standard schedules, performance charts, instructions, descriptive literature, catalogs and brochures, performance and test data, diagrams and other information furnished by the Contractor to illustrate a material, product, or system for some portion of the Work.
3. "Samples" are physical examples, which illustrate materials, equipment or workmanship and establish standards and measures by which the Work will be accepted. The term "Samples" as used herein includes materials, fabricated items, equipment, devices, appliances, or parts thereof as called for in the specifications and any other samples as may be required by the Commissioner to determine whether the kind, quality, construction, workmanship, finish, color and other characteristics of the materials, etc., proposed by the Contractor conform to the required characteristics. The various parts of the Work will be in accordance with the reviewed samples.
4. "Submittal" refers to Shop Drawings, Product Data, or Samples and other items as may be required by the Contract Documents.

B. Contractor's Responsibilities and Submittal Procedures.

1. Providing Shop Drawings, Product Data, and Samples is part of the scope of Work under this Contract and will be done at the expense of the Contractor and to the satisfaction of the Commissioner.
2. The Number of Shop Drawings, Product Data, and Samples to be submitted will be determined by the Commissioner and indicated in Section XI.B.12.
3. The Contractor must submit to the Construction Manager such Shop Drawings, Product Data, Samples, and other data required for the Work involved under this Contract in accordance with the approved Baseline Schedule and the form designated by the Commissioner entitled "Index and Schedule for Submission of Shop Drawings and Samples" (hereafter "Index and Schedule").
4. The "Index and Schedule" must be updated with the Baseline Schedule or as required by the Commissioner and will include a list of Shop Drawings, Product Data, Samples, and other data to be reviewed, a schedule of proposed submittal dates, and the date of manufacture, construction or erection. The dates listed in the Index and Schedule will allow sufficient time for review and processing by the Commissioner and review by the Consultants and re submittal, if necessary, of Shop Drawings or other data before the Shop Drawings and Samples are needed by the Contractor. No extensions of time will be granted to the Contractor because of its failure to have Shop Drawings, Samples and Product Data submitted in ample time to allow for review.

5. The Contractor's submission of all Shop Drawings, Samples and Product Data to the Construction Manager for review shall not relieve the Contractor from its responsibility in preparing and submitting proper Shop Drawings, Samples and Product Data in accordance with the Contract Documents. By submitting Shop Drawings, Product Data, and Samples, the Contractor represents that it has determined and verified all materials, field measurements, field conditions and verified quantities related thereto, or will do so, and that it has checked and coordinated the information contained within such submittal with the requirements of the Work and of the Contract Documents.
6. All Submittals must be transmitted to the Construction Manager in compliance with the manual entitled "Procedure for Approval of Shop Drawings, Product Data, Samples and Record Documents" which is incorporated into the Contract.
7. All Submittals must be transmitted to the Construction Manager on the form designated in the manual entitled "Procedure for Approval of Shop Drawings, Product Data, Samples and Record Documents" and must include:
 - a. Project title and number.
 - b. The names of:
 - (1) Contractor
 - (2) Subcontractor
 - (3) Contract Number
 - (4) Supplier
 - (5) Manufacturer
 - (6) Separate details when pertinent
 - c. Date and revision dates.
 - d. Identification of product or material.
 - e. Relation to adjacent structure or materials.
 - f. Field dimensions, clearly identified as such.
 - g. Specification section number and paragraph.
 - h. Applicable standards, such as ASTM number or Federal Specification.
 - i. A blank space, minimum of 6 inches by 6 inches, for the review stamp.
 - j. Identification of deviations from Contract Documents.
 - k. Other data pertinent to the product or material.
 - l. Contractors stamp of Approval specified in Section XI.B.9.
 - m. Installation location, where applicable.
8. Any Submittal, which in the Commissioner's opinion is not complete and in proper form, will be returned to the Contractor without review. Submittals that are not complete or not in proper form include, but are not limited to, those which are not: clear and legible; collated into sets; complete; free of errors; checked by the Contractor; representative of the actual material or assembly and bearing the Contractor's approval stamp or other mark showing review and approval by the Contractor. The Contractor must not submit as Shop Drawings duplicates or reproductions of any Contract documents issued by the City.
9. All Shop Drawings, Product Data, and Samples must be examined and coordinated by the Contractor and will be dated and stamped by the Contractor, using the language designated by the Commissioner, indicating that the Submittal has been reviewed and checked prior to submittal and found to be in conformance with the Contract Documents. The Contractor must submit all Shop Drawings, Samples and Product Data to the Commissioner for review with 1) an accompanying transmittal letter which states the Project by title and project number and identifies the Work, material, or product by Specification Section and Article number and 2) the completed form entitled "Shop Drawing Data". The Contractor must coordinate Submittals into logical groups or sets to facilitate review of the several items.
10. No extensions of time will be allowed because of the Contractor's failure to submit Shop Drawings and other Submittals in ample time to allow review, possible rejection, and resubmittal and final review.

11. The Contractor must furnish Shop Drawings, Samples, Product Data and information which permit the Commissioner to identify and review the construction and to determine whether the Work complies with the requirements of the Contract Documents.
12. The Contractor must submit not less than the following quantities unless a greater number is specified herein or is required in the detailed Technical Specifications or is required by the Commissioner:
 - a. Shop Drawings: Submit one (1) original and six (6) copies of Shop Drawings.
 - b. Product Data: Submit six (6) copies of Product Data.
 - c. Samples: Submit four (4) Samples.
13. Prior to submitting Shop Drawings, Product Data, or Samples, the Contractor must notify the Commissioner in writing if there are any deviations in the Submittals from the requirements of the Contract. If any deviations from the Contract requirements are rejected by the Commissioner or if evaluation of the deviations delays the progress of Work, any delay caused will not be compensated with a time extension.

C. Review by the Commissioner.

1. Submittals shall be reviewed by the Commissioner for compliance with the Contract Documents. In reviewing Submittals, the Commissioner will not verify dimensions and field conditions. Any review will not be construed as a completed check nor will it relieve the Contractor, Subcontractors, manufacturers, fabricators, or suppliers from responsibility for any deficiency that may exist or from any departures or deviations from the requirements of the Contract Documents, nor will it relieve the Contractor from responsibility for errors of any sort in Shop Drawings, Samples, and Product Data nor from responsibility for proper fitting of the Work, nor from the necessity of furnishing any Work required by the Contract Documents which may not be indicated on Shop Drawings when reviewed. The Contractor will be solely responsible for any quantities, which may be shown on the Shop Drawings. The Commissioner's review of a specific item will not indicate approval of an assembly of which the item is a component.
2. The Contractor must modify and resubmit Submittals, as required, until review permitting fabrication is obtained. The Contractor will not fabricate products, begin Work, order or have delivered any material, equipment or systems, which requires a reviewed Submittal, until return of the submittal with a stamp authorizing Work to be done. The stamps are indicated in Section XI.C.3.
3. After review by the Commissioner, the Commissioner shall return a copy of reproducible Shop Drawings, which will have been stamped by the architect/engineer of record and/or CDA as follows:
 - a. The stamp "A" signifies "No Exceptions." Indicates final action and that no changes need to be made to the submittal. The Contractor may proceed with the work for that Submittal. Resubmittal is not required.
 - b. The stamp "B" signifies "Exceptions as Noted." This indicates that the Submittal is accepted subject to corrections and/or comments noted. The Contractor may proceed with the Work for that Submittal provided the Contractor incorporates the reviewer's corrections and/or comments in the Work. Resubmittal is not required.
 - c. The stamp "C" signifies "Revise and Resubmit." This indicates the Submittal was reviewed and does not meet all the requirements necessary to proceed with the work associated with the Submittal. The Contractor must resubmit in accordance with the reviewer's corrections and/or comments made regarding the submittal. Submittals marked in this manner must not be released for fabrication, delivery, or construction.

- d. The stamp "D" signifies "Rejected." This indicates that the Submittal does not meet requirements set forth in the Contract Documents. The Contractor must resubmit this work in accordance with the Contract requirements and any corrections and/or comments made regarding the submittal by the reviewer. Submittals marked in this manner will not be released for fabrication, delivery, or construction.
 - e. The stamp "N" signifies "No Action Taken". This indicates that the Contractor has met the contractual requirement for providing drawings and calculations for equipment, falsework, shoring, bracing, and other temporary structures or temporary services required for the work, designed, signed, and sealed by an Illinois licensed engineer employed by that Contractor. The Contractor and the licensed engineer employed by that Contractor will be solely responsible for, including but not limited to, the proper implementation, execution, installation, operations, and/or construction procedure or method covered by this Submittal.
4. If the Shop Drawings require revision, the Contractor must notify the City and all appropriate parties, in writing, that the reviewed set has been withdrawn and the Contractor must submit the substitution set in accordance with the above procedures.
 5. Submittals that are rejected or require revisions must be corrected and resubmitted to the Construction Manager to maintain the approved Index and Schedule and Baseline schedule.
 6. Submission and Review of Samples: The Contractor must submit not less than four (4) Samples of materials to the Construction Manager for approval as indicated in the Technical Specifications. In case a considerable range of color, graining, texture or other characteristics may be anticipated in finished products, a sufficient number of Samples of the specified materials must be furnished by the Contractor to indicate the full range of such characteristics which will be present in the finished products; and such product delivered or erected without Submittal and review of full range Samples will be subject to rejection. All Samples will be properly labeled to indicate type of material submitted, intended use, manufacturer's name, project name, Contractor's name, Subcontractors' and suppliers' names, include an indication of compliance requirements, including FAA, and be accompanied with a letter of transmittal containing similar information, together with the specification section number for identification of each item. Each tag or sticker must have clear space for the stamps of the Contractor and Commissioner. Samples must be inspected and reviewed. Notice of the result of the review shall be provided to the Contractor with one of the stamps indicated in Section XI.C.3. Rejected Samples will be returned. Accepted Samples will be retained by the Commissioner and will become the property of the City. Where color Samples are required to be submitted, color Samples must be submitted on the actual material, which will finally be installed in the Work.
 7. Product Data: After review by the Commissioner, two (2) sets of Product Data stamped by the Commissioner as previously described in Section XI.C.3 shall be returned to the Contractor.
 8. When reviewed by the Commissioner, Shop Drawings, Samples and Product Data will become a part of the Contract, and the materials and equipment furnished will be in conformity with the same, provided that the review of such Submittal will in no way relieve the Contractor from its responsibility for the proper installation and performance of any material or equipment or from its liability to replace the same should it prove defective.

END OF XI

XII. PROJECT RECORD DOCUMENTS, PROJECT ACCOUNT RECORDS AND DAILY PROGRESSREPORTS

A. "As-Built" Drawings.

1. As the Work progresses, the Contractor and the Subcontractor for each trade or division of Work, under the direction of the Contractor, must keep a complete and accurate record of the following:
 - a. Changes and deviations between the Work as actually installed and the Work as shown on the Contract Drawings and the Shop Drawings.
 - b. The specific locations of piping, valves, ductwork, manholes, handholes, equipment, and other such Work which were not located or changed location from that shown on Contract Drawings.
 - c. Equipment schedules indicating manufacturers' names and model numbers installed.
2. Changes, deviations, and other information must be neatly and correctly recorded on a full sized set of Contract Drawings. This record set of Contract Drawings must be kept at the job site for inspection by the Commissioner. Upon completion of the Work, the Contractor must submit one (1) final set of Contract Drawings with changes, deviations or other information marked in red ink to show the as-built conditions of the Project and three (3) copies ("As-Built Drawings") to the Construction Manager for approval and acceptance by the Commissioner prior to the completion of the Punch List.
 - a. The Contractor must submit half-size red-line as-built drawings for any work related to a FAA facility at the completion of a phase, milestone, or as required for acceptance by the FAA.
3. At the time "As-Built Drawings" are delivered to the Construction Manager, the Contractor and each Subcontractor must certify, in writing, that the "As-Built Drawings" are complete and accurate.

B. Operation and Maintenance Manuals, Instructions, and Parts List.

1. The Contractor must furnish to the Construction Manager one bound copy of operation and maintenance manuals, instructions, specifications relative to the assembly, installation, alignment, placing in operation and maintenance of equipment, systems and construction under this Contract prior to Substantial Completion. Two (2) additional bound copies and two (2) electronic copies, in a format acceptable to the Commissioner, must be furnished to the Construction Manager prior to Final Completion.

For all items requiring spare parts and materials, the Contractor must submit five (5) bound copies of the list of required spare parts and materials for each, including manufacturers product, material, part or re-order numbers, name, address, and telephone numbers of local suppliers and manufacturer's corporate offices.

For any work related to a FAA facility, the Contractor must submit Operation and Maintenance Manuals and Test Results at the completion of a phase or milestone or as required for acceptance by the FAA.

2. The bound copies must be permanently reproduced on heavy paper and will be in addition to any instruction and parts lists attached to the equipment or materials when delivered or submitted in conformance with the Contract Documents.
3. Contractor shall submit one (1) original and four (4) copies of all guarantees and warranties required by the Contract Documents from Contractor, subcontractors, suppliers and/or manufacturers.

C. Record Shop Drawings.

Record Shop Drawings and Product Data must be submitted for all items reviewed as Shop Drawings, and have a status of "A", "B" or "N". Contractor must provide three (3) bound copies of all submittals in loose-leaf binders and two (2) electronic copies in a format acceptable to the Commissioner. Binders must be divided by Specification number and contain an index of all items, including Shop Drawings.

D. Record Documents.

All Record Documents must be prepared and transmitted to the Construction Manager in compliance with the manual entitled "Procedure for Approval of Shop Drawings, Product Data, Samples and Record Documents" which is incorporated into the Contract.

E. Delivery Requirements.

As a prerequisite to the Punch List completion and as a condition to its review by the Commissioner, the Contractor must deliver to the Construction Manager, in suitable transfer cases clearly marked "Record Documents": the "As-Built Drawings", Record Shop Drawings, Product Data, instructions, parts lists, and operations and maintenance manuals arranged in proper order and indexed.

F. Electronic Records.

Upon request by the Commissioner, Contractor shall provide the City electronic versions of any hard-copy record documents that the Contractor is required to prepare pursuant to the Contract Documents.

G. Project Account Records.

1. Project Data and Records:

- a. All books and accounts kept by the Contractor in connection with the Contract shall be open to the inspection of the Commissioner or the Commissioner's authorized representative and all City of Chicago authorized agencies and their representatives. Promptly following the preparation of periodic payrolls of the Contractor and of each of its Subcontractors, the Contractor must furnish the Construction Manager with such number as may be required of certified copies of such payrolls.
- b. The Contractor and each Subcontractor must also keep an accurate record showing the names and occupation of all laborers, workers and mechanics employed by them in connection with the Work and showing also the actual hourly wages paid to each of such workers, which record will be open at all reasonable hours to the inspection of the Commissioner and to the Director of Labor (State of Illinois).
- c. The Contractor must at any time when required by the Commissioner or Chief Procurement Officer, furnish to the Construction Manager a written statement, verified by affidavit, giving the names and addresses of all persons, firms, and corporations who have up to the date thereof furnished labor or materials in or about the performance of the Contract and the amounts due or to become due to said parties.
- d. The Contractor and any Subcontractor must furnish the Construction Manager with such information as the Commissioner may require relating to the materials including all information necessary to determine the cost of the Work, such as the number of workers employed, their pay, the distribution of labor into Work item, equipment time distribution and any other information which the Commissioner may require. The

Contractor must, on request, furnish the Construction Manager with copies of delivery tickets and invoices, in triplicate, covering all expenditures on the Contract.

2. Audits:
 - a. The Contractor must maintain, or cause to be maintained, records showing actual time devoted and costs incurred. The Contractor must maintain, or cause to be maintained, its books, records, documents, and other evidence, and adopt, or cause to be adopted, accounting procedures and practices sufficient to reflect properly all costs of whatever nature, claimed to have been incurred and anticipated to be incurred for or in connection with the Project for five (5) years after the date of Final Completion of the Project. This system of accounting will be in accordance with generally accepted accounting principles and practices, consistently applied throughout.
 - b. The Contractor must furnish, or cause to be furnished, to the Commissioner such information as may be requested relative to the progress, execution, and cost of the Project. All books and accounts in connection with the Project must be open to inspection by authorized representatives of the City. The Contractor must make these records available, or cause them to be made available, at reasonable times during the performance of the Work under this Contract and will retain them in a safe place and must make them available for inspection for at least five (5) years after the Project Completion Date. No provision in this Contract granting the City right of access to records and documents is intended to impair, limit, or affect any right of access to such records and documents, which the City would have had in the absence of such provisions.
 - c. The City may in its sole discretion audit the records of Contractor or its Subcontractors, or both, at any time during the term of this Contract or within five years after the Contract ends, in connection with the goods, Work, or services provided under this Contract. If, as a result of such an audit, it is determined that Contractor or any of its Subcontractors has overcharged the City, the City will notify Contractor. Contractor must then promptly reimburse the City for any amounts the City has paid Contractor due to the overcharges and also some or all of the cost of the audit, as follows:
 - (1) if the audit has revealed overcharges to the City representing less than 5% of the total Project cost, based on the Contract Prices, of the goods, Work, or services provided, then the Contractor must reimburse the City for 50% of the cost of the audit;
 - (2) if, however, the audit has revealed overcharges to the City representing 5% or more of the total Project cost, based on the Contract Prices, of the goods, Work, or services provided, then Contractor must reimburse the City for full cost of the audit.

Failure of Contractor to reimburse the City in accordance with (1) or (2) b above is an event of default under this Contract, and Contractor will be liable for all the City's cost of collection, including any court costs and attorneys' fees.
3. Confidentiality: All of the reports, information, or data, prepared or assembled by or provided to the Contractor under this Contract are confidential and the Contractor agrees that, except as specifically authorized herein or as may be required by law, neither it or its subcontractors must make available said reports, information, or data, to any other individual or organization, without the prior approval of the Commissioner.

END OF XII

XIII. TESTING AND INSPECTION

A. General Inspection.

1. All materials and equipment and each part or detail of the Work is subject at all times to inspection, testing and approval by the Construction Manager, the Commissioner, and/or a consultant engaged by the City to perform such inspections and testing (collectively, "City Inspector"). The Contractor will be held strictly responsible for performance of the Work that complies with the express requirements and intent of the Contract Documents in regard to quality of materials, workmanship and the diligent execution of the Contract. Such inspection may include mill, plant, shop, field inspection and any material or equipment furnished. The City Inspectors must be allowed access to all parts of the Work and must be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection. The City Inspectors have the right to take progress photos of any part of the Work.
2. All material used must be inspected, tested, and approved before being incorporated in the Work. All inspections and tests performed by the City Inspector are to verify that the materials being furnished by the Contractor meet the Contract requirements and will be used as the basis for Pay Estimates. Payment will not be made for uninspected, untested, or otherwise unauthorized use of materials incorporated into the Work. The Contractor, at its own expense, may perform or have others perform similar tests for the sole purpose of maintaining the Quality Control of the material being provided. Payment will be based solely on the results of those tests performed by the Commissioner.
3. Material and equipment inspection must be as hereinafter specified in the Section XIII.B, "Materials and Equipment Testing and Inspection".
4. The Contractor must remove, or uncover such portions of the finished Work as the Commissioner may direct before the final acceptance of the same to allow examination by a City Inspector. After the examination, the Contractor must restore said portion of the Work to the standard required by the Contract Documents. If the Work thus exposed or examined proves acceptable, the expenses of uncovering or removing and the replacing of the parts removed shall be paid for as changed Work, unless otherwise provided in the Contract Documents, but, if the Work so exposed or examined is unacceptable, the expense of uncovering or removing and the replacing of the same in accordance with the Contract Documents shall be borne by the Contractor.
5. Except as may be otherwise specified in other sections of the Contract Documents, a City Inspector will make inspection of all Work included in the Contract as soon as practicable after notification by the Contractor as provided in Section IX.G.1 that the Work is substantially completed and ready for inspection. If the Work is not acceptable to the Commissioner at the time of such inspection, the Construction Manager will inform the Contractor as to the particular defects to be remedied before the Project will be determined to be substantially complete.
6. When the Contract includes Work for which the Federal Government is to pay a portion of the cost thereof, such Work shall also be subject to the inspection and approval by the representatives of the Federal Government, but such inspection and approval will in no sense make the Federal Government a party to the Contract.
7. When the Contract includes Work that will ultimately be owned and/or maintained by a specific outside agency or other third party, such Work shall also be subject to the inspection by the representatives of the outside agency or third party, but such inspection will in no sense make the outside agency or third party a party to the Contract.

B. Materials and Equipment Testing and Inspection.

1. As stated in Section XIII.A "General Inspection", all materials and equipment may be inspected and tested by a City Inspector. For materials which are not an integral part of equipment and for which Samples can be submitted, the Contractor must give sufficient advance notice of placing orders to permit tests to be completed before the materials are incorporated into the Work and must afford such facilities as the City Inspector may require for collecting and forwarding samples and making inspections and tests. All Samples must be furnished without charge. The Contractor must not make use of or incorporate into the Work the materials represented by the Samples until tests have been made and the materials found to be in accordance with the requirements of the Contract Documents.
2. The Contractor must notify the Construction Manager that materials and/or equipment have been delivered to the job site and inspected by the Contractor, by submitting a "Request for Inspection of Material" form. The Construction Manager shall inspect the material and/or equipment and make a recommendation to the Commissioner as to its conformance with the requirements of the Contract Documents prior to its incorporation into the Work.
3. For materials that are an integral part of machinery or equipment or of parts of equipment normally stocked by the Contractor or Subcontractor, the Contractor may furnish copies of certified tests made at the time of production.
4. In addition to on-site inspection and testing, the City Inspectors shall have free entry, at all times while Work is being performed, to all parts of a manufacturer's works that concern the manufacture of the material or equipment ordered for the Project. The City Inspectors shall be permitted to examine all components and subassemblies. Assemblies and parts must be numbered for identification. The Contractor (or manufacturer) must provide the City Inspectors with a detailed production schedule prior to the first inspection. After a study of the production schedule, the City Inspectors must inform the Contractor (or manufacturer) of its methods, extent of inspection and facilities desired. The manufacturer will afford the City Inspectors, without charge, all reasonable facilities to provide satisfactory documentation that the material or equipment is being furnished in accordance with the Contract Documents. All tests and inspection shall be made at the place of manufacture prior to shipment and at the Contractor's or manufacturer's expense.
5. Part Three of the Contract Documents may include the cost of travel and living expenses for a specific number of City employees and/or other persons for a specific test. The travel and living expenses for any additional City employees or additional person(s) will not be a cost to the Contractor. The manufacturer or Contractor will furnish a certification of the ordered tests after completion. The Commissioner reserves the right to re-inspect all materials or equipment, which have been inspected and accepted at the place of manufacture or source of supply, after they have been delivered to the site and to reject any which do not meet with the requirements of the Contract Documents.
6. If the preparation of the material or equipment is at a far distant or inaccessible location, or if it is divided into unreasonably small quantities, or widely distributed to an unreasonable extent, or if the percentage of rejected material is unreasonably large, or if the Contractor's production schedule and arrangements for test and calibration is such that the cost of inspection by the City is unreasonably high, the additional cost of extra inspection resulting therefrom must be born by the Contractor. The Commissioner shall be the sole judge of what is to be deemed extra inspection.

If the City Inspector is a City employee, the actual travel of the City Inspector, limited to the applicable amounts set forth in the City's travel reimbursement guidelines, must be included in the additional cost of extra inspection and paid by the Contractor. If the City Inspector is not a City employee, the City Inspector's travel expense reimbursement shall be as stated in the City's contract with the City Inspector, limited to the applicable amount

set out in the City's travel reimbursement guidelines, must be included in the additional cost of extra inspection, and paid by the Contractor.

7. Unless otherwise provided, all materials will be sampled and tested in accordance with the latest published standard methods of the American Society for Testing and Materials and revisions thereof, where such standard methods exist. In case there are no ASTM standards which apply, applicable standard methods of other recognized standardizing agencies will be used. In all cases, the standard methods and revisions thereof that will be used are those in effect on the date of the invitation for bids.
8. For any material not covered by the designated specifications of some designated society, association, institute or governmental authority, appropriate methods of testing and inspection to be designated by the Commissioner will be followed.

END OF XIII

XIV. PROTECTION OF PERSONS AND PROPERTY, HEALTH AND SAFETY, SERVICES AND USE OF SITE

A. Protection of Persons and Property.

1. Protection of FAA Facilities.

- a. The Contractor's operations such as trenching, jacking of pipe or casing, excavation for pavements or structures, site grading and vehicular traffic may occur over, around and under FAA facilities such as equipment houses, direct buried cables and duct banks. These facilities are critical to the operation of the air traffic control functions at the Airports and all possible steps must be taken to identify, protect and prevent damage to such utilities and to ensure their integrity throughout the period of construction activity.
- b. The Contractor must notify the Construction Manager at least 72 hours prior to any excavation in the vicinity of FAA cables or ducts. The Construction Manager in turn will contact an FAA representative at the FAA O'Hare National Airspace System or at Midway Airport FAA Airway Facilities to arrange for a joint walking tour with cable location equipment to identify precisely such cables and locations in order to assure the preservation of their vital functions during construction. It is impossible to over stress the importance and priority involved in the maintenance of the FAA facilities on the Airports.
- c. In order to access FAA facilities, the Contractor must notify the Construction Manager at least five (5) business days in advance.

2. Protection of Persons and Property in Areas of the O'Hare Airport Transit System (ATS).

- a. The following Rules govern Work and other activities performed within or near the ATS Right of Way "ROW Envelope," as defined herein. These rules are intended to protect the lives and safety of persons and to prevent property damage. The rules are applicable at all times. It is the obligation of any person working or performing activities, or directing the activities of others, within or near the ATS to ensure compliance with these rules. These rules represent the minimum requirements. Additional care should be exercised if circumstances warrant.
- b. General Information:
 - (1) The ATS is a transit system used primarily for transporting airline passengers, airline employees, and other Airport personnel to various points within the Airport. The ATS serves the three domestic terminals in the Terminal Core Area, the International Terminal, and the Long Term Parking Areas. Passenger stations are located at each of the domestic terminals (1, 2, and 3), the International Terminal, and Lot "E" in the Long Term Parking Areas. New stations may be constructed in the future. If such stations are constructed, they will also be covered by these rules as of the commencement date of their construction.
 - (2) The ATS guideway (track area) is primarily elevated, but it is at-grade in some areas of the Airport. The plans, which will be provided by the Commissioner, illustrate the location of the guideway structure. The plans also indicate the location of the traction power, facility power, and other facilities, which serve the ATS.
 - (3) ATS vehicles are designed to operate without personnel (motorman or conductors) on-board. Vehicles are controlled from the ATS Maintenance Building. The number of vehicles operating at the same time on the ATS may vary according to the time of day. Vehicles may operate individually (single car)

or jointly (as many as three cars). Vehicles may travel up to 50 miles an hour at various points along the route, and may change direction without notice or warning. Vehicles may stop at any time without notice or warning.

- (4) The schedule for ATS service may vary according to the time of day, with peak service expected between 1400 hours and 2000 hours. Vehicles may operate seven (7) days a week, twenty-four (24) hours a day, with 750-volt direct current electrical power ("v.d.c.") to the guideway on at all times. Intervals between vehicles may be as short as 90 seconds, or as long as five to seven minutes.
- (5) The ATS is powered by 750 v.d.c. electricity through its guideway. Any direct or indirect contact (touching or placement of conducting materials in contact with or near these rails) can result in death or severe injury.
- (6) Work and other activities are prohibited within certain horizontal and vertical areas adjacent to the ATS, collectively called the "Right-of-Way Envelope" ("ROW Envelope"). The clearances required to preserve the integrity of the ROW Envelope will be maintained at all times. The horizontal component of the ROW Envelope is depicted on plans, which will be provided by the Commissioner. The actual width of the horizontal ROW Envelope may vary at different locations. Regardless of the actual width, however, Work and other activities are prohibited within 2 horizontal feet from the vertical end of the tie (track support) face. Work and other activities are prohibited within five (5) feet from the edge of the slab along the at-grade portions of the ATS. The vertical component of the ROW requires a minimum vertical clearance over the guideway of thirteen (13) feet, six (6) inches. Underneath the elevated structure, Work and other activities are prohibited within two (2) feet of the bottom flange of the steel girder. The minimum vertical clearance underneath the elevated structure when it crosses paved surfaces (roadways) is fourteen (14) feet, six (6) inches, and may be lower in some specific paved areas (not designated roadways), and at unpaved locations.

c. Rules:

- (1) All persons who perform Work or other activities near or within the ROW Envelope must exercise the highest standard of care so as not to cause injury to themselves, passengers, contractors or their employees, or others; interference with the operations of or property damage to the ATS; or other property damage.
- (2) Persons performing Work or other activities near the ROW Envelope must exercise the highest standard of care so as to avoid entry on or within the ROW Envelope. Such entry has the potential to cause injury or death to themselves, passengers, contractors and their employees, or others; interference with the operations of or property damage to the ATS; or other property damage.
- (3) Entry on or within the ROW Envelope is prohibited, unless specifically permitted in writing and, then, only in the manner and at the times and locations permitted in writing by the Commissioner. Work and other activities within the ROW Envelope will not proceed without the express written authorization of the City. In no event will the City be liable or responsible for any damages for delays or other claims arising in connection with the obtaining of such authorization.
- (4) No less than thirty (30) days prior to the start of any Work or other activities near (within 10 feet) or within the ROW Envelope, a written operations plan must be prepared in writing and provided to the Construction Manager for its review. The Construction Manager will meet with the involved parties within ten (10) business days of receipt of the plan to discuss any changes, which may be required. At a minimum, the plan will include the following:

- (a) The Work or other activities to be performed; the equipment to be used; and the number of personnel or others involved.
 - (b) The schedule and proposed hours for Work or other activities to be within or near the ROW Envelope.
 - (c) Any sequential staging of the Work or other activities near or within the ROW Envelope.
 - (d) Drawings depicting haul roads, storage sites, barricades, or temporary structures to be located near or within the ROW Envelope.
 - (e) A description of measures to be taken to preserve the integrity of the ROW Envelope, and prevent interference with ATS operations or violations of these rules.
 - (f) Any other matters which may affect the ATS.
 - (g) The Construction Manager will be notified again, in writing, no more than 72 hours in advance of the start of Work or other activities to be performed near or within the ROW Envelope.
- (5) All Work or other activities within or near the ROW Envelope must be conducted, on dates designated by the Construction Manager, between the hours of 0000 (12:00 A.M.) and 0500 (5:00 A.M.). No other times will be available except with the express written permission of the City. No Work or other activities, which would inhibit normal ATS service, will be permitted within the ROW Envelope during peak service hours.
 - (6) Prior to the start of any Work or other activities within or near the ROW Envelope, any persons who may be on-site, including the Contractor, field personnel and supervisors, must attend safety classes held by the City. The persons requiring such classes will be responsible for the cost. A cost estimate will be provided upon written request.
 - (7) The persons responsible for the Work or other activities to be performed near or within the ROW Envelope must pay any costs, which the City may incur in connection with such Work and other activities, including without limitation costs associated with providing flagmen, or construction inspectors. A cost estimate will be provided upon written request.
 - (8) Power to the guideway may be disconnected, by the City, for short periods of time, when deemed permissible by the City, in its sole discretion, to allow Work or other activities to be performed near or within the ROW Envelope. Power will not to be disconnected during peak service hours. Arrangements for disconnection of power must be made with the Commissioner. City personnel assigned to this task will be identified. Only City personnel assigned to this task are authorized to disconnect power. No Work or other activities will proceed until such time as the identified City personnel indicate that the power has been disconnected.
 - (9) Work and other activities near or within the ROW Envelope must not cause damage, settlement, or displacement of any structures, equipment, track, or any other portion of the ATS. In the event of any damage, settlement or displacement of the equipment, structures, track, or any other portion of the ATS, all Work and other activities must be immediately suspended and the Construction Manager and Commissioner promptly notified. The City may decide, in its sole discretion, what measures are needed to repair any damage

to the ATS, and may order such repairs to be done by City personnel, by others hired by the City, or by the person responsible for damage. Regardless of who performs the repairs, the person responsible for the Work or other activities, which caused the damage, must bear the cost of repair and service disruption.

- (10) If the Commissioner deems, in his or her absolute sole discretion, the Work or other activities being performed near or within the ROW Envelope to be hazardous to the operations or safety of the ATS or its passengers, he or she may immediately order the suspension of such Work or other activities, and may revoke any and all authorizations to be near or within the ROW Envelope. Such order and revocation may be verbal in an emergency, with written notice to follow as soon as practicable. Such Work and other activities will immediately cease and will not be recommenced until a new authorization is received from the City. In no event will the City be liable or responsible for any damages for delay or other claims in connection with such revocation.
- (11) The City reserves the right to perform Work within the ROW Envelope, at any time, and without prior notice. Work and other activities of the Contractor to be conducted near or within the ROW Envelope, which may, in the City's sole opinion, interfere with the City's Work, will be suspended, upon written notice by the Commissioner or Construction Manager, until such time as the City indicates. In no event will the City be liable or responsible for any damages for delay or other claims arising in connection with such suspension.
- (12) The City reserves the right to issue new rules as may be needed, in the City's sole opinion, from time to time, in connection with Work or other activities being conducted near the ATS, or near or within the ROW Envelope, and such rules will be effective as of the date of issuance.

3. Protection of Existing Structures and Property.

- a. The Contractor must avoid damage, as a result of its operations, to trees, plant life, existing sidewalks, curbs, streets, alleys, pavements, utilities, adjoining property, the work of other contractors and the property of the City and others and will at its own expense repair any damage thereto caused by its operations.
- b. The Contractor must be responsible for loss or damage by fire or theft of equipment, material, or other property of the CDA or the City of Chicago, incurred while such equipment, material or other property is located in any field office or on the site of the Work. The Contractor must repair or replace any such equipment, material or other property so lost or damaged, to the satisfaction of the Commissioner at no additional cost to the City.
- c. The Contractor must familiarize itself with the requirements of local and state laws applicable to underpinning, shoring and other Work affecting adjoining property and wherever required by law the Contractor will shore-up, brace, underpin, secure, and protect as may be necessary all foundations and other parts of existing structures adjacent to, adjoining and in the vicinity of the site, which may be in any way affected by the excavations or other operations connected with the Work.
- d. The Contractor is responsible for the giving of any and all required notices to any adjacent or adjoining property owner or other party and such notice or notices must be served in sufficient time as not to delay the progress of the Work.
- e. The Contractor must indemnify, save and keep the City harmless from any damages on account of settlements or the loss of lateral support of adjacent or adjoining property and from all loss or expense and all damages for which the City may become liable in consequence of such injury or damage to adjacent and adjoining structures and their premises.

- (1) The provisions of the foregoing paragraph will include also and apply to any liabilities and duties placed upon the City of Chicago as owner or occupant of the property on which the improvements provided for herein are to be constructed, by the provisions of an Act entitled "An Act to prescribe the duty of an owner or occupant of lands upon which excavations are made in reference to the furnishing of lateral and subjacent support to adjoining lands and structures thereon". See 765 ILCS 140/1 et seq.

4. Protection of Utilities.

- a. The Contractor must determine the locations of all utilities in the vicinity of the site of the Work and will take suitable care to protect and prevent damage to such utilities from its operations under this Contract.

- (1) The O'Hare International Airport Underground Construction Notification document, also known as the "Dig Book" must be prepared and submitted a minimum of twenty-one (21) calendar days prior to the commencement of any excavation and/or utility work. The Contractor cannot perform any excavation or work around existing utilities without receiving a fully executed Dig Book. The Contractor must participate with the Construction Manager in the preparation of the Dig Book.

- (2) Contractor must include in the Baseline, Monthly Update and Three-Week Look Ahead Schedules a predecessor milestone and task to represent the submittal and execution of the Underground Construction Notification form for each activity associated with excavation and utility work. The milestone denotes the submittal of the form to the CDA for approval. The task should denote the twenty-one (21) calendar day form approval period.

- b. When performing Work adjacent to existing sewers, drains, water and gas lines, electric or telephone or telegraph conduits or cables, poles lines or poles, or other utility equipment or structures, which are located outside of the neat lines of the excavations to be made or of the structures to be constructed under this Contract and which are to remain in operation, the Contractor must preserve and maintain such utility equipment, structures, and utility marking posts in place at its own expense and will co-operate with the City department, utility company or other party owning or operating such utility equipment or structures in the maintenance thereof.
- c. The Contractor is responsible for and must repair all damage to any such utility, equipment or structures caused by its acts, whether negligent or otherwise, or its omission to act, whether negligent or otherwise and will leave such utility, equipment or structures in as good condition as they were in prior to the commencement of its operations under this Contract. However, it is hereby agreed that any such utility equipment or structures damaged as a result of any act, or omission to act, of the Contractor may, at the option of the City department, utility company, or other party owning or operating such utility, equipment or structures damaged, be repaired by such City department, utility company, or other party and in such event the cost of such repairs will be borne by the Contractor.

5. Protection of Streets, Alleys, and Public Grounds.

- a. If in the prosecution of the Work it is necessary to excavate, use or occupy any street, alley, or public grounds of the City, the Contractor must erect and maintain such barriers and, during the night time, such lights as will effectually prevent the happening of any accidents or damage to life, limb or property in consequence of such excavation, use or occupation of such street, alley, or public grounds.

- b. The Contractor will be liable for all damages occasioned by the excavation, use or occupation of any street, alley, or public grounds, or by the carelessness of the Contractor, its agents, employees, or workers and will indemnify the City against all judgments rendered against it by reason thereof.
- c. If the City is sued solely for such neglect, a judgment rendered against it will be conclusive evidence (1) of the negligence of the Contractor as aforesaid and (2) the amount of such damages recoverable from the Contractor by reason thereof. In the defense of such action, the Contractor, upon notice, agrees to cooperate with the City to the fullest extent in furnishing evidence bearing on the charges therein made.

6. Protection of Existing Trees in the Right of Way.:

- a. It is the responsibility of the Contractor to protect all trees from damage at the construction site. Any damage to trees resulting from a construction project, as determined by the Commissioner, will be repaired or replaced at the Contractor's expense.
- b. The Contractor will be required to replace any permanently damaged tree with a new tree of the same type and said new tree will have a trunk with a minimum one and one-half (1-1/2) inch diameter.
- c. The protection of trees will include bridging, tunneling, drawing, drilling or boring underneath existing trees. The surface area directly adjacent to the tree trunk will not be disturbed under the following guidelines:
 - (1) Less than 5 inches DBH trees - 2-foot radius of the tree trunk with a minimum of 3-foot depth.
 - (2) 5 inches to 20 inches DBH trees - 5-foot radius of the tree trunk with a minimum of 3-foot depth.
 - (3) Over 20 inches DBH trees - 7-foot radius of the tree trunk with a minimum of 3-foot depth.
 - (4) When bridging, tunneling, drawings, drilling or boring underneath existing trees, said Work will be accomplished directly beneath the center of the tree trunk.

B. Health and Safety.

1. Project Health and Safety:

- a. Contractor has sole and complete responsibility for implementation of a safety program. The Contractor's safety program must, at a minimum, meet the requirements of the "Chicago Airport Systems Construction Safety Manual", which is incorporated by reference and made a part of this Contract. The Contractor's safety program must include the Work of all the Contractor's Subcontractors. The Contractor's Safety Program must be submitted to the Commissioner for review and approval at least thirty (30) days before start of the Work.
- b. The Contractor shall designate a safety representative for the project. This person shall be present whenever work is being performed at the site or at any staging area on the Airport property. The safety representative shall have the project safety responsibilities as his or her exclusive responsibility and not have any other responsibilities regarding this project unless the Commissioner specifies otherwise in Part 1 of the Contract Documents. The safety representative must have the authority and the experience level to fulfill the duties stated in the "Chicago Airport Systems Construction Safety Manual".

- c. Although the Construction Manager and Commissioner will observe construction and give the Contractor opinions and suggestions about safety defects and deficiencies, the Construction Manager and Commissioner will not be responsible for any unsafe working conditions. The Construction Manager's or Commissioner's suggestions on safety will in no way relieve the Contractor of its responsibility for safety on the project. The Contractor has sole responsibility for safety.
- d. The Contractor must comply with the requirements of Regulations 29 CFR Part 1926 (Originally CFR Part 1518) - Safety and Health Regulations for Construction of the Williams-Steiger Occupational Safety and Health Act of 1970 (Federal, OSHA). Copies may be obtained from the Regional Administrator of the Department of Labor, Federal Office Building, and Chicago, Illinois.

The Contractor's attention is directed to the "Health and Safety Act" of the State of Illinois. The rules pursuant to this Act are on file with the Secretary of State of Illinois and are identical in every respect with the standards in effect under the Federal, OSHA, and law, pursuant to orders of the Illinois Industrial Commission. The Federal and State standards require that the Contractor provide reasonable protection to the lives, health, and safety of all persons employed under the Contract. Such act and rules and the applicable parts thereof will be considered as part of these specifications.

- e. The Contractor must comply with all local safety laws including, but not limited to, blasting or use of explosives, and those set forth in Title 15 of the Municipal Code of Chicago, Ch. 15-4, Art.5, and Ch. 15-20, Art.1.
 - f. The Contractor must take any precautions that may be necessary to render all portions of the Work secure in every respect or to decrease the liability of accidents from any cause, or to avoid contingencies which are liable to delay the completion of the Work. The Contractor will furnish and install, subject to the approval of the Commissioner, all necessary facilities to provide safe means of access to all points where Work is being performed and make all necessary provisions to insure the safety of workers and of engineers and inspectors during the performance of said Work.
 - g. The Contractor must keep on the site of the Work, completely equipped first aid kits readily accessible at all times. The Contractor will designate a person on each shift, acceptable to the Commissioner, to be in charge of first aid and will cause such person to receive proper instructions therein.
 - h. The Contractor must furnish and place, in all buildings connected with the Work, a sufficient number of fire extinguishers, of a type and capacity approved by the Illinois Inspection and Rating Bureau.
 - i. Only such materials and equipment as are necessary for the construction of the Work under this Contract, as determined by the Commissioner, will be placed, stored or allowed to occupy any such space at the site of the Work. If gasoline, flammable oils, or other highly combustible materials must be stored at the site, they will be stored in approved safety containers and placed where directed by the Commissioner.
2. Fire Protection: Fire protection must comply with all fire regulations and with all specific regulations of the Commissioner and other City officials who have jurisdiction, and will include the following:
- a. An ample number of suitable, fully charged fire extinguishers will be provided as approved. Also provide water type fire extinguishers for combustible materials in case of fire prior to daily removal of debris from the site.
 - b. All tarpaulins or other protective coverings will be of approved flame retardant material.

- c. Not more than one (1) day's supply of flammable liquid including oil, gasoline, paint or solvent will be brought to the site at any one time. All 110 degree F., or below, flash point liquids will be confined to "U.L." approved safety cans. No open fires of any type will be permitted.
 - d. The Contractor must prohibit all lighting of fires about the premises and all smoking in restricted areas where posted with "NO SMOKING" signs and must use due diligence to see that such prohibition is enforced. "NO SMOKING" signs must be furnished and posted by the Contractor. Smoking is prohibited everywhere on the AOA.
 - e. No debris or waste materials, including hazardous materials, will be burned at the construction site.
 - f. During construction, all cutting or welding operations will be carried out with all precautions taken to prevent fires resulting from sparks or hot slag. Extreme care will be exercised to determine that such sparks or embers do not fall into any combustible materials, even if such material is stored on lower floors. Sheet metal windscreens will be provided around the lead-melting furnaces whether building is enclosed or not. Portable fire extinguishers will be provided at and below all locations where cutting or welding or melting operations are being performed or, if such operations are extensive, a hose from the stand pipe system or fire hydrant will be placed nearby.
 - g. All combustible material, including but not limited to, wood, crates, excelsior paper, rags or flammable solvents will not be allowed to accumulate, but will be removed to a safe location and disposed of immediately after they have served their purpose.
 - h. If there is a concentration of gas vapors at the Project site, the Contractor will be responsible for clearing the area, and notifying the Commissioner and the gas Utility Company. All operations in the area will be suspended until the source of such vapors has been located and corrected.
 - i. The Contractor will arrange for the installation of necessary fire protection lines and equipment as required by the Chicago Fire Department and as necessary to properly protect the building under construction. Permanent fire protection facilities may be used for this purpose as soon as they are installed, tested, and approved for use by the Commissioner in writing for temporary use.
 - j. Salamander heaters or similar forms of uncontrolled heaters will not be used except with the special written permission of the Commissioner and City fire marshal and then only when each salamander is maintained under constant supervision.
3. Environmental Compliance: As provided in Section C, "Compliance with Environmental Laws", below, in performing the Work under the Contract, the Contractor must comply with all Environmental Laws, including but not limited to those relating to preventing pollution of air, water, soil, and groundwater due to its construction and other operations, must eliminate excessive noise, and must otherwise conduct its operations in a manner protective of public health and safety. If the Contractor causes the release or threatened release of Hazardous Materials into the air, soil, water, or groundwater at the airport or exacerbates any existing environmental condition at the Airport, the removal of such Hazardous Materials and the remediation of any contamination must be performed in the manner and time frame determined by the Commissioner, and by applicable Environmental Laws, at the Contractor's sole expense.

The Contractor must also comply with the CDA Stormwater Pollution Prevention Plan (SWPPP), Spill Prevention Control & Countermeasure Program (SPCC), and the Best Management Practices Manual. These documents are meant to supplement existing federal, state, or local regulatory requirements with additional best practice environmental strategies and considerations. These documents are available on the CDA website:

4. Clean Up:
 - a. During the construction, the Contractor must keep the site of the Work and adjacent premises as free from material, debris, and rubbish as is practicable and when directed, will immediately remove same entirely when, in the opinion of the Commissioner, such material, debris, or rubbish constitutes a nuisance, a safety hazard, or is objectionable in any way to the public. Haul roads, streets, and public areas will be swept daily.
 - b. Contractor is solely responsible for and will assume all liability associated with off-site disposal of Hazardous Materials at a properly permitted disposal facility generated as a result of Contractor's construction activities.
 - c. Before Final Completion of the Project, the Contractor must remove from the site of the Work and adjacent premises all machinery, equipment, surplus materials, falsework, excavated and useless materials, rubbish, temporary buildings, barricades and signs and will restore the site to the same general conditions that existed prior to the commencement of its operations. The cost of final cleaning up will not be paid for under any specific scheduled item but will be included in the prices bid for the various items or included in the Contract lump sum price as the case may be.
 - d. The Contractor must clean off all cement streaks or drippings, paint smears or drippings, rust stains, oil, grease, dirt and any other foreign materials deposited or accumulated on any portion of its Work, or existing Work, due to its operations.
5. Snow and Ice Removal: Contractor must remove snow and ice which may impair progress of Work, be detrimental to workers, or impair trucking to and from point of delivery at job site, all subject to no interference whatsoever to aircraft, to other operations at the airport and subject to whatever directions the Commissioner may give to the Contractor.
6. Glass Breakage: All glass broken or damaged during construction will be replaced by the Contractor or Subcontractor responsible for the breakage or damage. In the event responsibility cannot be determined, the Contractor will make all such replacements without additional cost to the City.
7. Sanitation.
 - a. The Contractor must enforce among its employees such regulations in regard to cleanliness and the disposal of garbage and wastes including Hazardous Materials as will be conducive to their health and tend to prevent the inception and spread of contagious and infectious disease among them and will provide an ample supply of suitable, pure drinking water and will take such means as the Commissioner may direct to effectively prevent the creation of a nuisance on any part of the site of the Work or adjacent streets or property.
 - b. Necessary sanitary conveniences for the use of the laborers on the Work, properly secluded from public observation, will be constructed and maintained by the Contractor in such manner and at such points as will be approved and their use will be strictly enforced. Whenever manholes have been used for sanitary purposes, they will be thoroughly flushed and cleaned when no longer needed.
 - c. The manner of disposing of waste will be such that all waste is legally disposed of at properly permitted facilities without creating a public nuisance or health hazard and in accordance with EPA, Illinois EPA and Illinois Department of Public Health Circular No. 815 or Educational Health Circular No. 4.001 and the City of Chicago Municipal Code.

- d. The Contractor must also comply with all rules and regulations of the Federal and State Governments and Chicago Health Department.

8. Public Convenience.

The Contractor will be held responsible for all damage or injury, even though barricades, signs, lights, reflectors and flagmen are furnished as herein specified.

- a. All hauling and operations of equipment and all other necessary operations under this Contract must be so conducted as to cause a minimum of noise, vibration and inconvenience to the normal activities of the occupants of property and buildings in the vicinity of the Work. Whenever the Commissioner determines that any type of operation constitutes a nuisance, the Contractor must, immediately, proceed to conduct its operations in an approved manner.
- b. The Contractor must, at all times, conduct the Work in such a manner as to insure the least obstruction to vehicular and pedestrian traffic. Normal vehicular and pedestrian traffic on all adjacent streets, bridges, overpass structures and ramps will be maintained at all times during the performance of the Work under this Contract. Whenever such obstruction or interference is unavoidable, attention is called to the necessity of obtaining permits from the appropriate municipal or public agency before proceeding with the Work. Wherever necessary, the Contractor, at its expense, must provide all temporary facilities that may be required to maintain vehicular and pedestrian traffic and access to all property.
- c. Whenever any part of a street is obstructed or closed to traffic, the Contractor must provide, erect, and maintain at its own cost and expense all of the approved barricades, signs, lights and reflectors necessary to provide safe and convenient public travel. The Contractor must also provide, at its expense, any flagmen that may be required for warning and directing traffic.
- d. The Commissioner may at any time require additional provisions if such are deemed necessary for public safety or convenience.

The Contractor will be held responsible for all damage or injury, even though barricades, signs, lights, reflectors and flagmen are furnished as herein specified.

C. Compliance with Environmental Laws.

- 1. The Contractor must comply with all Environmental Laws including without limitation, those relating to fines, orders, injunctions, penalties, damages, contribution, cost recovery compensation, losses or injuries resulting from the release or threatened release of Hazardous Materials, special wastes or other contaminants into the environment and to the generation, use, storage, contaminants into the environment and to the generation, use, storage, transportation, or illegal disposal of solid wastes, Hazardous Materials, special wastes or other contaminants including, without limitation, the Comprehensive Environmental Response and Compensation and Liability Act (42 U.S.C. 9601 et seq.), the Hazardous Material Transportation Act (49 U.S.C. 1801 et seq.), the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6901 et seq.), the Clean Water Act (33 U.S.C. 1251 et seq.), the Clean Air Act (42 U.S.C. 7401 et seq.), the Toxic Substances Control Act of 1976 (15 U.S.C. 2601 et seq.), the Safe Drinking Water Act (42 U.S.C. 300f), the Occupational Safety and Health Act of 1970 (29 U.S.C. 651 et seq.), the Emergency Planning and Community Right-to-Know Act (42 U.S.C. 11001 et seq.), the Illinois Environmental Protection Act (Ill. Rev. Stat. Ch. 415 ILCS 5/1 through 5/56.6), and the Municipal Code of Chicago, each as amended or supplemented, and any analogous future or present local, state or Federal statutes, rules and regulations promulgated thereunder or pursuant thereto, and any other present or future law, ordinance, rule, regulation, permit or permit condition, order or directive regulating, relating to or imposing

liability or standards of conduct concerning any Hazardous Materials or by Federal government, any state or any political subdivision thereof, or any agency, court or body of the Federal government, any state or any political subdivision thereof, exercising executive, legislative, judicial, regulatory or administrative functions (collectively, "Environmental Laws").

2. If any Environmental Laws require the Contractor to file any notice or report of a release or threatened release of Hazardous Materials or special wastes on, under or about any premises used by Contractor to perform the services required hereunder, the Contractor must provide a copy of such report or notice to the Commissioner. In the event of a release or threatened release of Hazardous Materials, special waste or other contaminants into the environment or in the event any claim, demand, action or notice is made against the Contractor regarding the Contractor's failure or alleged failure to comply with any Environmental Laws, the Contractor will immediately notify the Commissioner and the City's Corporation Counsel in writing and will provide them with copies of any written claims, demands, notices or actions so made.
3. If the Contractor fails to comply with any Environmental Laws, the City may terminate this contract in accordance with the default provisions of this contract.
4. For purposes of this provision, the following definitions will apply:
 - a. "Hazardous Materials" means friable asbestos or asbestos-containing materials, polychlorinated biphenyls (PCB's), chlorofluorocarbon (CFC) refrigerator gas, petroleum or crude oil or any fraction thereof, natural gas, source material, special nuclear materials; and by product materials regulated under the Atomic Energy Act (42 U.S.C. 2011, et seq.) pesticides regulated under the Federal Insecticide Fungicide and Rodenticide Act (7 U.S.C. 136, et seq.), and any hazardous waste, toxic or dangerous substance or related material, including any material defined or treated as "hazardous substance", "hazardous waste", "toxic substance", or contaminant (or comparable term) under any of the Environmental Laws.
 - b. "Special Wastes" means those substances as defined in 415 ILCS 5/3.45, and as further referred to in Section 809.13 of 35 Illinois Code, Subtitle G. Ch. 1.

D. Environmental Permits.

1. The Contractor must show evidence of, and keep current throughout the term of this Contract, all waste hauling, special waste hauling, disposal permits and insurance certificates issued by the applicable Federal, State, City and other local governmental body and agency's Environmental Laws, including but not limited to, the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Department of Transportation Regulations, the Hazardous Materials Transportation Act, the Clean Air Act, and the Clean Water Act, the Illinois Environmental Protection Act, the Municipal Code of the City of Chicago, currently in effect, and as amended during the course of this contract period.
2. When requested by the Chief Procurement Officer, the Contractor must submit copies of all required hauling permits as required by Environmental Law. Copies of all permits and insurance certificates that require periodic renewal must be forwarded to the Chief Procurement Officer throughout the duration of this Contract. Non-compliance with this requirement may be cause for rejection of bid and/or termination of this Contract.

E. Disposal of Materials, Construction Debris, Soil and Waste.

1. The Contractor is responsible for the legal disposal of all materials, construction debris, soil and other waste items. Hauling and disposal by a subcontractor does not relieve the Contractor from the responsibility of legal disposal. Disposal of all materials, construction debris, soil, and other wastes will be at a disposal site that is properly licensed and

permitted to accept the particular materials, construction debris, soil and other wastes delivered to it in accordance with all applicable Environmental Laws, including but not limited to City of Chicago MCC 2-92-595 and Illinois EPA 35 IAC 1100.

2. The Contractor must provide the Commissioner or his designated representative with copies of all dump tickets, manifests, bills of lading, scale tickets, etc. When requested by the Chief Procurement Officer, the Contractor will provide copies of all permits and/or licenses for the transfer station and/or landfill they are proposing. In the event the transfer station and/or landfill proposed for use by the Contractor does not possess the necessary permits and/or licenses to accept the materials, construction debris, soil, or other wastes, the Contractor will replace the transfer station and/or landfill submitted as part of their bid proposal at no additional cost to the City. If the Contractor is found disposing of materials, construction debris, soil or other wastes at a site which is not in compliance with all applicable laws, the Contractor will be responsible for all costs associated with the removal of the waste to a properly licensed/permitted landfill or disposal site at no additional cost to the City.
3. The Contractor accepts responsibility for being in compliance with all applicable Environmental Laws and other applicable Federal, State, City and other local government and agency laws, ordinances, rules, regulations and codes currently in effect and as amended during the course of this contract.
4. The Contractor must notify the Commissioner within 24 hours of receipt, of any environmental problems, complaints, fines, citations, violations or issues, by any governmental body or regulatory agency against the contractor relating to the loading, hauling or disposal of materials, construction debris, soil and other wastes. The Contractor will provide evidence to the Commissioner that these problems and issues have been satisfactorily addressed.
5. The Contractor must supply notice of any community meetings, media involvement or media coverage related to the loading, hauling or disposal of materials, construction debris, soil and other wastes under this contract in which Contractor is asked to participate.
6. The Contractor must provide periodic verification as requested by the Commissioner that all materials, construction debris, and other waste accepted by the Contractor, from the City of Chicago, has been disposed of in compliance with all Environmental Laws.
7. In accordance with Section 11-4-1600(e) of the Municipal Code of Chicago, Contractor warrants and represents that it, and to the best of its knowledge, its Subcontractors have not violated and are not in violation of the following sections of the Code (collectively, the Waste Sections):

| | |
|------------|--|
| 7-28-390 | Dumping on public way – Violation – Penalty; |
| 7-28-440 | Dumping on real estate without permit; |
| 11-4-1410 | Disposal in waters prohibited; |
| 11-4-1420 | Ballast tank, bilge tank or other discharge; |
| 11-4-1450 | Gas manufacturing residue; |
| 11-4-1500 | Treatment and disposal of solid or liquid waste; |
| 11- 4-1530 | Compliance with rules and regulations required; |
| 11-4- 1550 | Operational requirements; |
| 11-4-1560 | Screening requirements; and any other sections listed in Section 11-4-1600 (e) as it may be amended from time to time. |
| 11-4-1905 | Construction or Demolition Waste Recycling; and any other sections listed in Section 11-4-1600 (e) as it may be amended from time to time. |

During the period while this Contract is executory, Contractor's or any Subcontractor's violation of the Waste Sections, whether or not relating to the performance of this Contract, constitutes a breach of and an event of default under this Contract, for which the

opportunity to cure, if curable, will be granted only at the sole designation of the Chief Procurement Officer. Such breach and default entitles the City to all remedies under the Contract, at law or in equity.

8. This section does not limit the Contractor's and its Subcontractor's duty to comply with all applicable federal, state, county and municipal Environmental Laws, statutes, ordinances and executive orders, in effect now or later, and whether or not they appear in this Contract.
9. Non-compliance with these terms and conditions may be used by the City as grounds for the termination of this contract, and may further affect the Contractor's eligibility for future contract awards.

F. Equipment and Environmental Control During Transport.

1. The Contractor must haul materials, construction debris, soil and other wastes in vehicles and/or containers complying with all applicable Environmental Laws. All equipment used to transfer materials; construction debris, soil and other wastes will be designed to prevent spillage during the hauling operation. Contractor's equipment will fully comply with all City, State and Federal regulations, laws and ordinances pertaining to size, load weight, and safety. The City will not be liable for any violation committed on the part of the Contractor in the handling, hauling, disposal or transportation (by any method) of materials, construction debris, soil and other waste. The Contractor must fully comply with all applicable Environmental Laws, including but not limited to the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Department of Transportation Regulations, the Hazardous Materials Transportation Act, the Clean Air Act, and the Clean Water Act, the Illinois Environmental Protection Act, the Municipal Code of the City of Chicago, currently in effect and as amended during the course of this contract period.

G. Environmental Records and Reports.

1. The Contractor must prepare and maintain proper, accurate and complete records of accounts of all transactions related to the operations of this contract, including, but not limited to the following:
 - a. Vehicle maintenance records.
 - b. Safety and accident reports.
 - c. IEPA manifests.
 - d. Disposal records, including disposal site used, date, truck number, and disposal weight.
 - e. Permit documentation and all other documentation and transactions pertaining to all environmental rules and regulations.

H. Ultimate Disposal Site.

1. The Contractor must at the time of submitting its bid, identify approved disposal site(s) or privately owned transfer station(s) to which he has contractual access and for which proper, sanitary landfill permits and/or licenses have been obtained by the operators.
2. Disposal sites submitted must be of sufficient capacity to insure acceptance of the volume of materials, construction debris, soil, and other wastes received for the period of this contract. The disposal site(s) must meet all applicable permitting, licensing and zoning requirements.
3. The Contractor must designate by name and location the disposal site(s) as supplemental information on the Proposal Page. Failure to identify disposal site(s) for materials, construction debris, soil and other wastes or to submit this information when requested by the Chief Procurement Officer may be cause to reject the bid as non-responsive.

4. When requested by the Chief Procurement Officer, the Contractor must submit copies of all contractual agreements, sanitary landfill permits and/or licenses for those disposal site(s) proposed by the Contractor.
- I. Open Dumping Prohibited.
 1. The removal of all recyclable materials and garbage, refuse or other waste material, including but not limited to, broken concrete, bricks, rock, paving asphalt and incidental debris generated from all construction or demolition activities performed under this contract, must be transported to a facility that is zoned and permitted to accept such material pursuant to Section 11-4 of the City of Chicago Municipal Code and all Environmental Laws.
 - J. Services and Use of Site.
 1. Work Area: Part Three of the Contract Documents may assign areas for the Contractor's Field Office staging areas and areas for material storage. After award of Contract, the Contractor may request assignment of a working area. If this assigned working area is not of sufficient size, the Contractor must secure other space away from the Project site at its own expense. The period of use of the assigned working area may not exceed the number of calendar days for completion of the Work as specified in Part One or until Final Completion of the Project.
 2. Temporary Services and Utilities.
 - a. General:
 - (1) The Contractor is responsible for arranging for and providing all general services and temporary facilities as specified herein and as required for the proper and expeditious prosecution of the Work. The Contractor must pay all costs for such general services and temporary facilities.
 - (2) Temporary connections for water, electricity, and heat (including installation, maintenance and removal of such facilities) will be at the Contractor's expense.
 - (3) The Contractor must pay the cost of all temporary utilities including, electricity, gas, water, and telephone during the construction period.
 - b. Water:
 - (1) The Contractor must provide temporary water connections as required for drinking and construction purposes.
 - (2) The Contractor will note that the Commissioner reserves the right to regulate the use of water, and may impose restriction on the use in the event water is being used carelessly by the Contractor.
 - (3) Water and facilities for obtaining water for sanitary purposes, drinking, mixing concrete and for all other purposes will be provided by and at the expense of the Contractor. The water must be obtained from the mains of the Chicago Water System, except as may be provided in the Detail Specifications. Except with special permission from the Commissioner and the Department of Water Management, connections for water will not be made to the City's fire hydrants.
 - c. Light and Power: The Contractor must furnish the electrical energy and must furnish and install all wiring, electrical services, lighting units, insulated supports for wiring and all other electrical equipment together with all other incidental and collateral Work

necessary for the furnishing of the temporary power and lighting facilities for the Work to be done under this Contract, all at no additional cost to the City.

3. Temporary Heating During Construction.
 - a. The Contractor must provide temporary closures or enclosures for all exterior doors, windows, roof or other types of exterior openings as required to provide protection from the elements during construction. It is the Contractor's responsibility to keep water in pipes from freezing and to maintain temporary heat in areas where finish Work is being performed at not less than 50 F. Finish work includes, but is not limited to: masonry, plastering, painting, millwork, and other temperature sensitive work. Heating period will be from approximately October 1 to May 30 unless conditions warrant otherwise.
 - b. The Contractor must furnish, install, operate and maintain all required temporary heating equipment, and will provide and pay all fuel costs. Oil fired or gas heating units will be self-contained units, which will be furnished, in sufficient number and adequate capacity to conform with the requirements for temporary heat stated above. Each oil-fired or gas-fired unit will be properly vented as required to dissipate noxious fumes and prevent discoloration of building construction. Temporary electrical connection will be provided by the Contractor.
4. Temporary Construction Facilities.
 - a. General: Unless otherwise specified, the following temporary construction and temporary facilities must be provided and maintained by the Contractor throughout the construction period and remove same at the completion of the Work.
 - b. Toilets: The Contractor must provide portable chemical toilet facilities at the site for all workers employed on the Project as soon as construction operations commence. Toilet facilities must be serviced twice weekly, which will include draining tank, refilling, disinfecting the interior of each toilet unit, and keeping each unit stocked with toilet paper. Toilet facilities must be maintained during the term of the construction period and removed upon completion of the Work.
5. Contractor's Field Office.
 - a. When required by Part Three of the Contract, the Contractor must provide a temporary building or mobile type field office, for its own use, of such size and containing such equipment as its Contractor deems necessary to conduct the operations. The Field Office must be provided with a telephone for Contractor's superintendent and telephone for use by others during the entire period of construction.
 - b. The Contractor's authorized agent must be present at its field office at all times while its Work is progress. Readily accessible copies of both the Contract Documents, Contract Modifications and the latest approved working drawings and Shop Drawings must be kept at this field office.
 - c. When required by Part Three of the Contract, the Contractor must supply the field office, furnishings, equipment, supplies and vehicles specified in Part Three of the Contract for the City's field supervision staff.
6. Working Space.
 - a. The Contractor shall provide, on the premises, working space for its use and for each of its Subcontractors requiring on-site working space. The Contractor must also provide sufficient space for benches, tools, material storage and for such other purposes as may be required to properly perform and expedite the Work. Allocation of such Work areas shall be approved by the Commissioner.

- b. The Contractor must maintain, throughout the construction period, all Work areas in a clean and orderly condition and take whatever precautions may be necessary adjacent to the Work. Where construction materials are to be stored or Work performed in working space outside a building, the Contractor must provide necessary protection for walks, pavement, etc. Any damage to Work due to improper protection must be cleaned, repaired, or replaced by the Contractor at no additional expense to the City.

7. Parking Restrictions.

- a. Except to the extent that the Commissioner has made parking available, the Contractor must, at all times, require its employees to park their automobiles in the customer parking lots at the airports or at non-airport locations.
- b. The Contractor's and Subcontractor's employees must not at any time park their automobiles, no matter how short the duration, in any drive, road, or any other location within the boundaries of the airports.
- c. The Commissioner may authorize parking at the Contractor's designated storage area if existing conditions permit.

8. Project Sign: A Project sign is to be erected by the Contractor, when required by Technical Specifications, at a location designated by the Commissioner. Upon project completion the sign must be removed by the Contractor. The Project sign will be constructed of treated exterior grade plywood; painted, installed and placed as directed by the Commissioner.

9. Heaters in temporary offices and sheds must be properly installed and precautions taken to protect combustible walls, floors, and roof.

K. Storage.

1. Storage of Materials.

- a. If it is necessary to store materials, they must be protected in such a manner as to insure the preservation of their quality and fitness for the Work. All stored materials will be inspected at the time of use in the Work even though they may have been inspected and approved before being placed in storage. The Contractor must store materials in the areas provided as working areas by the Contract Documents. If no areas are provided, or if the areas provided are insufficient, the space required will be provided by the Contractor at its expense. Upon completion of the Work, storage sites and working areas must be cleaned and restored to their original condition by the Contractor at its expense.
- b. All materials and equipment must be received at the Work undamaged. The Commissioner will have the right to reject any method of packing and shipping which, in the Commissioner's opinion, will not adequately protect the materials and equipment against damage while they are in transit or storage or which will damage existing structures.
- c. Only such materials and equipment as are necessary for the construction of the Work, as determined by the Commissioner, will be placed, stored, or allowed to occupy any space at the site of the Work. If gasoline, flammable oils, or other highly combustible materials are to be stored at the site, they will be stored in approved safety containers and placed where directed by the Commissioner. Compressed gas cylinders must also be properly secured and stored.

- d. All materials or plant used in the construction of the Work must be so placed as to allow free access to all fire hydrants, water valves, gas valves, manholes that are part of electric, telephone and telegraph conduit lines and all fire alarm and police call boxes in the vicinity.
 - e. No material or equipment may be stored or staged on the Aircraft Operations Area without written permission from the Commissioner. If allowed, the material and equipment must be stored and/or staged subject to the directions of the Commissioner.
2. Storage Sheds: The Contractor and each Subcontractor must provide suitable watertight storage sheds for their own use as required. The Contractor and each Subcontractor must be responsible and pay for extending electric services to their storage shed; however, such electrical Work will be performed by an electrical Subcontractor. Materials stored in the open will be arranged in an orderly manner and properly protected.
- L. Equipment and Falsework.
- 1. Equipment: All equipment owned or controlled by the Contractor, which is proposed to be used on the Work, must conform to the specifications for specific items of equipment. If not specified, equipment to be used on the Work is subject to the approval of the Commissioner under the provisions of the Section XIV.K.2, "Construction Procedure, Methods and Equipment."
 - 2. Welding:
 - a. No welding, flame cutting, or other operations involving use of flame, arcs, or sparking devices, will be allowed without adequate protection, subject to approval of the Commissioner.
 - b. All combustible or flammable material must be removed from immediate working area. If removal is impossible, all flammable or combustible materials will be protected with a fire blanket or suitable non-combustible shield to prevent sparks, flames, or hot metal from reaching flammable or combustible materials.
 - c. The Contractor must provide necessary personnel and equipment to control incipient fires resulting from welding, flame cutting, or other sources involving use of flame, arcs, or sparking devices.
 - d. All welders must be certified within the last eighteen months.
 - e. A Hot Work Permit, as listed in the Safety Manual must be displayed for all welding work.
 - 3. Temporary Stairs, Ladders and Equipment:
 - a. The Contractor must furnish and maintain all equipment such as temporary ladders, ramps, runways, hoists, scaffold, and similar items required for proper execution of Work. All such apparatus, equipment and construction will meet all requirements of federal, state and local laws concerning the safety and protection of employees. Also, any and all rules, regulations and directions of the CDA, applicable thereto, and all other authorities having jurisdiction over same will be followed.
 - b. No hoist, scaffolding or other equipment may be erected at such location as will interfere with or affect general construction or progress of other trades.
 - c. Hoists, scaffolding or other equipment must be located at sufficient distance from exterior walls to prevent staining or marring of any permanent Work.

- d. All suspended scaffolding and staging must be lowered to ground level at the end of each workday.

4. Temporary Barricades and Enclosures:

- a. The Contractor must provide temporary barricades or enclosures as required during the progress of the Work to protect personnel and separate work areas from the balance of building and other areas.
- b. Temporary work screens or enclosures must be provided, erected and maintained by the Contractor, to separate pedestrian or vehicular traffic and building areas free of noise, debris, dirt, etc. resulting from this Work, including provisions of all required protection for passers by and building occupants against all danger of injury, as approved by the Commissioner.
- c. All protective measures must be erected and maintained in accordance with the requirements of City, State and Federal authorities and as directed by the Commissioner, inclusive of all night and warning lighting as hereinafter required under Section XV.B, "Airport Operations."

M. Cooperation Among Contractors.

- 1. Unless otherwise provided in the General Conditions, if separate contracts are let for Work within or adjacent to the Project site as may further be detailed in the Contract Documents, each contractor must conduct its Work so as not to interfere with or hinder the progress of completion of the Work being performed by other contractors.
- 2. Each contractor involved will assume all liability, financial or otherwise, in connection with its Contract, and must protect and save harmless the City from any and all damages or claims that may arise because of inconvenience, delay, or loss experienced by the Contractor because of the presence and operations of other contractors working within the limits of the same improvement. Each contractor must assume all responsibility for all Work not completed or accepted because of the presence and operations of other contractors.
- 3. The Contractor must arrange its Work and placement and disposal of the materials being used so as not to interfere with the operations of other contractors within or adjacent to the limits of the project site. The Contractor must join its Work with that of others in an acceptable manner and will perform it in proper sequence to that of others.

N. Injuries To Contractor's Employees.

Contractor agrees to assume entire liability for all personal injury claims suffered by its own employees asserted by persons allegedly injured on the Project; waives any limitation of liability defense based upon Worker's Compensation Act, court interpretations of said Act or otherwise; and agrees to indemnify and defend the City and its design professionals and their agents, employees and consultants (the "Indemnities") from and against all such loss, expense, damage or injury, including reasonable attorneys' fees, that the Indemnities may sustain as a result of such claims, except to the extent that Illinois law prohibits indemnity for the Indemnities' own negligence. Contractor further agrees to require all of its subcontractors to agree to this contract provision.

END OF XIV

XV. AIRPORT SECURITY AND OPERATIONS

A. Airport Security and Badging.

1. This Agreement is expressly subject to 49 U.S.C. Chapter 449, Security, the provisions of which, and all rules and regulations promulgated thereunder, are hereby incorporated by reference. Contractor must comply, and must cause its subcontractors, guests and invitees to comply, with all such rules and regulations as they apply to them and any other applicable rules and regulations governing the conduct and operation of the City's Airports which may be promulgated from time to time by the Transportation Security Administration, the FAA or the Commissioner of Aviation.

If Contractor, or any Subcontractor or individual employed by Contractor, in the performance of this Agreement, has (i) unescorted access or regular escorted access to aircraft located on or at the City's Airport; (ii) unescorted access or regular escorted access to secured areas of the Airport, or (iii) capability to allow others to have unescorted access to secured areas, Contractor is subject to, and further must conduct with respect to its Subcontractors and the respective employees of each, such investigations (including the submission of fingerprints to the City to conduct criminal history record checks) as the Federal Aviation Administration ("FAA"), the Transportation Security Administration ("TSA") and the City may consider necessary. All such individuals that pass the requisite investigation will be required to participate in a security awareness program and will be issued an identification badge that must be visibly displayed at all times while on the airfield or other secured areas of the airport, consistent with federal requirements and Aviation regulations. They will further be required to report suspected security violations in accordance with rules and regulations promulgated by the Secretary of the United States Department of Transportation, by the Under Secretary of the TSA, and by the City.

Failure to comply with applicable rules and regulations may result in administrative actions and/or judicial prosecution. The Contractor will be jointly liable for any fines imposed for violation of rules and regulations by its employees and those of its Subcontractors, guests, and invitees.

2. The Contractor must apply for a CDA Airport Security Badge for each of its employees, Subcontractors, material suppliers, invitees, consultants or other persons the Contractor employs during the progress of the Work. Each person requiring regular access to airside areas of the Airport must submit a signed, completed "Access Control Photo ID Badge and Fingerprint Application", to the CDA to receive an Airport Security Badge, which may include authorization to drive on the Aircraft Operations Areas (AOA). However, if the person does not go through security to the airside more often than seven (7) days, over the duration of the project, that person may be escorted by an individual with an airport security badge.
3. Airport Security Badges: Each person requiring regular access to Airside areas of the Airport must submit a signed, completed "Access Control Photo ID Badge and Fingerprint Application," to the CDA to receive an Airport Security Badge, which may include authorization to drive on the AOA. Prior to issuance of the Airport Security Badge, the employee must complete the TSA required training class.

The Federal Aviation Administration, TSA, and City requires employees of Contractors and all Subcontractors to provide fingerprints for a criminal history check conducted by the Federal Bureau of Investigation as a requirement to apply for an Airport Security Badge.

Employees without proper credentials will be removed from the AOA or any secured area of the airport.

4. Airfield Access Vehicle Permits: In order for the Contractor to be issued Airfield Access Vehicle Permits for operation of a vehicle on the AOA, the Contractor must submit a "Company Vehicle Access Form – AIRFIELD." The Contractor is responsible for requesting and completing these forms for all vehicles to be used on the project site.

Vehicles without proper credentials will be removed from the AOA or any secured area of the airport.

5. The following rules related to Security Badges, Vehicle Permits, Driver's Licenses must be adhered to:
 - a. Each person must wear and display an Airport Security Badge issued to that person on his or her outer apparel, above the waist, at all times.
 - b. Contractor must ensure that its employees needing an ORD or MDW badge have met the security background checks and training requirements of the Airport Certification Manual and FAR Part 139. This includes, but may not be limited to:
 - i. 10-year employee background check (contractor responsibility).
 - ii. Finger printing (completed at ORD or MDW).
 - iii. On all Airside Projects: During the badging process, but prior to receiving ORD/MDW ID badge, all employees shall complete Part 303 (2 hours) training, the cost for which is incidental to the Contract.
 - a. Annual 303 Training. This training is required for all construction personnel that will be issued a ORD or MDW identification badge, except when issued a red badge. If an employee is issued a green badge, with or without driving privileges (yellow stripe), this training must be completed prior to application for the initial badge and repeated annually prior to badge renewal. This requirement applies to all Contractors and Sub-Contractors.
 - iv. Vehicle driver testing (completed at ORD and/or MDW)
 - c. All individuals operating a vehicle on the AOA must be familiar and comply with motor driving regulations and procedures of the State of Illinois, the City of Chicago, and the CDA. The operator must be in possession of a valid, state-issued Motor Vehicle Operator's Driver Licenses. All individuals operating a vehicle on the AOA without an escort must also be in possession of a valid Airport Security Badge that includes authorization to drive on the Airside. In order to receive a badge authorizing operation of a vehicle on the AOA, the individual must attend mandatory training and pass a written examination.
 - d. All vehicles and mobile construction equipment which are to be in use on the AOA for more than seven (7) days over the duration of the project, must have an Airfield Access Vehicle Permit affixed to the vehicle at all times while operating on the Airport. All vehicles and construction equipment are subject to search as they enter the AOA or any time thereafter. In addition, all required City stickers and State Vehicle Inspection stickers must be valid.
 - e. Escorted vehicles or equipment that will be in use on the AOA for less than seven (7) days over the duration of the Project, that do not have an Airfield Access Vehicle Permit are required by the TSA to be inspected as they enter the AOA.
6. Access to the Work sites will be as shown or designated on the Contract Document drawings. The Contractor will use only designated access gates, service roads or haul roads while on Airport property.
7. Whenever the Contractor receives permission to enter airport property in areas, which are exit/entering points, not secured by Airport Security police, the Contractor will be required

to provide gates that comply with Airport design and construction standards. Two (2) bonded security guards will be required at the gates when the gates are in use. The locks will be provided by Airport Security. Failure to provide the necessary security will result in an immediate closure by Airport personnel of the point of access. No extension of time will be allowed for the execution of Work if the Contractor is required to gain access through Airport Security exit/entry points.

8. The Commissioner will determine areas in which the Contractor may stockpile materials, and park equipment, or vehicles, and any conditions related thereto.
9. Damage to any security fencing, gates, or alarms caused by the Contractor must be manned by a bonded security guard of the Contractor until restored and must be restored to its original condition within an eight (8) hour period from the time of notice given by the Commissioner.
10. Temporary removal of any security fencing, gate or alarm to permit construction must be approved by the Commissioner and must be manned by a bonded security guard of the Contractor on a twenty-four (24) hour basis during the period of temporary removal and must be restored to its original condition when construction is completed.
11. Weapons, alcohol, illegal drugs, or other contraband are not allowed on the Airport.
12. All Contractor's personnel and vehicles working within the airport security limits will be properly identified. All Airfield Access Vehicle Permits and Airport Security Badges will be issued to the Contractor by the Commissioner, as required. Return of all Permits and Badges to the Commissioner after completion of the Project is the responsibility of the Contractor. Final Contract Payment will not be made until all Permits and Badges issued have been returned to Aviation Airport Security at the Airport.
13. The Contractor must place signage that identifies the Project, on all vehicles and equipment used at the Airport. The size of the signage and information to be provided will be determined by the Commissioner.
14. Certified Flagger Training: Under the requirements of Advisory Circular (AC) 150-5370-2F, all personnel flagging on an airport must be familiar with the specific requirements and limitations of the construction project and taxiway crossing areas. All Contractor flaggers are required to attend the Airport flagger training program.

B. Airport Operations.

1. The Airport will be in operation while construction under this Contract is taking place. Time and coordination of the Work is an essential feature of this Contract, and the Commissioner will require the completion of all Work herein specified so as to offer the least obstruction and/or impediment to Airport traffic and the general operation of the Airport. All existing utilities serving the Airport will remain in continuous operation during the prosecution of the Work. The Commissioner reserves the right to place sections of the Work required under this Contract in use upon written direction to the Contractor.
2. The Contractor's attention is called to the fact that existing runways, taxiways, vehicular roadways, loadways, loading aprons, and passenger right-of-ways at the Airport are being used for scheduled and unscheduled aircraft. Arrivals and departures are under the control of the FAA Air Traffic Control Tower. Use of the Airport by all aircraft and Airport Operations will have precedence over all Contractor's operations.
3. The Contractor must cooperate fully with the CDA Airport Operations and the Commissioner in all matters pertaining to public safety and airport operations. No compensation will be allowed for any delays as a result of Airport Operations, which require that Work must be interrupted or moved from one part of the site to another.

4. Prior to start of the Project, the Construction Manager will provide specific requirements and/or instructions, which are applicable to the particular building site areas.
 - a. Federal Aviation Regulations (FAR) 139 Training (303 Training) is available through the CDA. No employee of Contractor, or Subcontractors, or Vendors shall be permitted to enter Airfield Operations Area (AOA) lacking successful completion of training for any reason.
5. The Contractor must not permit or allow its employees, subcontractors, material suppliers, invitees or any other persons over whom the Contractor has control to enter or remain upon, or to bring or permit any equipment or materials to remain upon, any part of the runways, taxi-ways, vehicular roadways, aprons, and passenger right-of-ways if any hazard to aircraft or to airport maintenance and operation, on or off the ground, would be created in the opinion of either the Commissioner or the CDA Airport Operations.
6. The Contractor must plan its construction operations so that material, equipment, supplies, and working personnel necessary to do the Work will enter and leave the Contract site via the gates and routes designated on the Contract Documents. No personal vehicles will be permitted within the AOA. The Contractor will be responsible for the construction, repair, and/or maintenance of all haul roads to and from the designated entrance to various Work sites.
7. All equipment and materials on the AOA must be marked with red obstruction lights, of a type acceptable to the Commissioner and Airport Operations. All obstruction lights will be kept on continuously, twenty-four hours a day, seven days a week.
8. Each vehicle and piece of equipment on the AOA must have a yellow rotating beacon or strobe light, in operation at all times, mounted on the roof.
9. The Contractor, through the Commissioner and City Aviation and FAA Airport Operations Personnel, must be in constant communications to insure safe operations on the airfield. The Contractor will notify the Commissioner forty-eight (48) hours prior to requesting the closing of any area so that the Airport Operations Personnel can properly coordinate the activities of the Airport and the Contractor.
10. All Vehicles and equipment must be kept within the work areas established for that work shift unless traveling to or from the project site. Under no circumstances shall vehicles or equipment be parked outside these areas. At no time shall any vehicles be parked, staged, or operated within the object free area (OFA) of an open taxiway. Work is permitted in the object free area of a runway while the runway is open, however, all equipment and material must be moved or relocated outside the OFA at the completion of the work day. Excavations are permitted within the OFA but all stockpiles must be removed. At no time shall any vehicles or equipment be parked within one hundred sixty (160) feet of the centerline of an operational taxiway segment or within four hundred (400) feet of the centerline of an operational runway (object free area) during periods other than the work shifts.
11. Extreme care must be taken when locating existing underground utilities. Contractor shall properly complete FAA Locate Request forms, submit them to the FAA Technical Operations office and simultaneously transmit a copy to the Construction Manager. Contractor shall designate an on-site person to monitor utility locating activities. Hand excavation and appropriate equipment shall be utilized wherever and whenever appropriate. DIGGER, JULIE, FAA and AGI shall be consulted to insure that utility locations are correctly marked.
12. The Contractor must maintain existing utilities in operation at all times except when specific permission is given by the Commissioner to shut down such utilities for the purpose of making connections thereto. When such utility service must be taken out of operation, the Contractor will notify the Commissioner at least seventy-two (72) hours in

advance of such time, and will obtain the Commissioner's approval for such shut down prior to interrupting the service. Interruption of service on all utilities will be kept to an absolute minimum, and the Commissioner will have the right to require the Contractor to perform Work which occasions such interruptions in stages in order to reduce time of each interruption. Interruptions in electrical services and the length of services outage will be kept to a minimum and in any case service must be placed in operation prior to sunset of the same day.

13. The Contractor must take the utmost care in construction operations such as trenching, jacking of pipe and casing, excavations of all types, grading and movement of vehicles over and around FAA facilities, equipment and structures. All such facilities are critical to the operation of the air traffic control function of the Airport. Failure of these facilities due to construction activity would be dangerous. The FAA regards the prospect of this event with the utmost gravity. IT MUST NOT HAPPEN.
14. Any cable or other existing utility lines that is damaged during the performance of this Contract must be repaired immediately by the Contractor, under the Commissioner's direction and at the Contractor's expense. During the period of time that the above types of cables or utilities are out of service due to the Contractor's operations, all Work must be suspended unless otherwise directed by the Commissioner. The Commissioner may order, in writing, the Contractor to halt all operations until service is restored. The Contractor will not be allowed to make claims for extra costs or time extensions due to stoppages of the Work based on the Commissioner's order.
15. Open trenches and excavations at the construction site must be prominently marked with barricades and lighted with flashing or steady burning red obstruction lighting as directed by the Commissioner and of a type acceptable to the Commissioner. The lighting must remain on twenty-four hours a day, seven days a week. Under no circumstances are flare pots to be used.
16. The Contractor must provide and maintain lighted barricades and all signs required to control construction traffic. The exact location and spacing of all barricades will be determined by the Commissioner. Lights on barricades must be double faced or 360 degree visibility with flashing red lights.
17. All the Work under this Contract is in restricted areas. The Contractor cannot cross any active runways or taxiways to deliver materials or workers without escorts and expressed permission of the Commissioner. The Contractor's attention is called to the fact that access to certain contract areas may be limited and/or refused for limited periods of time. The Contractor must cooperate with Airport authorities to keep the Airport in operation.
18. No requirements of this Contract with respect to precautions required or omitted will be deemed to limit or impair any obligations assumed by the Contractor under or in connection with this Contract. The Contractor must at all times maintain adequate protection to safeguard aircraft, the public, and all persons engaged in the Work without interference with aircraft, the public, and maintenance or operations of the Airport.
19. Notwithstanding anything to the contrary contained in the Contract Documents, the Contractor and all subcontractors, material suppliers, laborers, invitees and all other persons under the control of the Contractor must immediately comply, strictly, with any and all rules, regulations and directions which the Commissioner from time to time, issues during the life of the Contract with regard to safety, security, maintenance, and operations of the Airport.
20. Contractor must use "Airport Barricades" as shown on the Contract Drawings to prevent Aircraft from entering construction areas.

21. All cranes or booms used for construction Work must be lowered to ground level during all hours of darkness and during all daylight hours when the aircraft ceiling is below the minimums specified in the FAA 7460 airspace study response letter and moved outside the object free area for all open runways and taxiways. The Contractor must lower any cranes or booms when notified by Airport Operations personnel.
22. Attention must be given to reduce the noise of heavy construction equipment and to the control of dust, smoke and fumes from construction equipment and other operations on the Work site and the dirt and noise created by heavy truck operations over City streets in accordance with ordinances of the City and orders of the Commissioner. The discharge of oily, greasy and/or chemical materials or Hazardous Materials into waterways or City sewers will not be permitted.
23. The Contractor must establish a proactive Foreign Object Debris (FOD) Program including monitoring the Work Site on a continuous basis to prevent FOD from entering the AOA.
24. It is important that all contractors and sub-contractors are familiar with and knowledgeable of the rules, regulations, and procedures of the Chicago Department of Aviation (CDA) Spill Prevention and Control Program (SPCP). These procedures apply to all personnel working on the project. All spills, including but not limited to: fuel, oil, deicing chemicals, and solvents, regardless of volume, must be reported to the O'Hare Communication Center (OCC) and O'Hare Airport Operations. The OCC will dispatch the Chicago Fire Department (CFD) to determine the severity of the spill, assist with spill containment, cleanup, and/or oversight if necessary. The CFD will issue the official volume of product released for the responsible party's use in notifying the appropriate agencies, if required.

The Contractor will take all necessary precautions to prevent spilled fluids from reaching any surrounding sewers or waterways if it can be done without harm to any personnel. Any spill must be surrounded immediately with approved containment materials, the site secured, and the OCC contacted.

All personnel shall handle hazardous materials according to the guidelines as defined by the product Safety Data Sheets (SDS), formerly referred to as MSD sheets. Extra attention must be paid during all fueling operations.

Any person that causes or witnesses a spill anywhere on the airfield must first report it to the OCC. All contractors are required to have clean up and spill kits on site at all times when equipment is in use. Kits are to be of adequate size to handle fuel or oil spills for the size and amount of equipment in use on the project at any specific time. The Contractor must develop and submit a spill prevention and control plan and incorporate the procedures into the project-specific Safety Plan Compliance Document (SPCD).

25. All runway safety areas are to remain clear of all personnel and equipment while the runway is open and available for use. **NO WORK SHALL TAKE PLACE IN THE RSA AND TSA UNLESS THE RUNWAY IS CLOSED TO AIR TRAFFIC OPERATIONS.**
26. Work is permitted in the runway and taxiway object free area. However, at the completion of each work day, no stockpiles, material, or equipment are permitted within the Runway Object Free Area (ROFA). Excavations are allowed provided they are barricaded and protected to a level approved by the Commissioner.
27. All excavation will be protected with snow fence or equivalent and barricades with red 360 degree visible lights.
28. Vehicles, equipment, material and stockpiles allowed to remain outside the ROFA will not penetrate Federal Aviation Regulations (FAR) Part 77 imaginary surfaces (particular, but not limited to the Primary Surface and Transition Slope).

C. Construction Notices to Federal Aviation Administration.

1. The CDA will submit a preliminary Federal Aviation Administration Form 7460-1.
2. The Contractor must cooperate with the CDA in the preparation and filing of the final Federal Aviation Administration FAA Form 7460-1 including the heights and locations of equipment to be used for the construction.
3. The Contractor will submit the final Federal Aviation Administration, FAA Form 7460-1, required for notice of proposed construction, including heights and locations of equipment to be used for the construction on or near an airport under Part 77, of the "Regulations of the Federal Aviation Administration" on or before the date of the Notice To Proceed.
4. The CDA will also file with the Federal Aviation Administration on or before the date of the Notice To Proceed, a notice advising the exact date of commencement of Work.
5. Upon receipt of the Notice of Proceed, it is the Contractor's responsibility to obtain from the Commissioner a copy of the Federal Aviation Administration's acknowledgment of the filing of FAA Form 7460-1 and a copy of the Work commencement date advisory notice aforesaid. No Work will be performed by the Contractor until it is in receipt of the foregoing documents unless otherwise allowed by the Commissioner.
6. In addition to the 7460 application, the CDA will submit a Construction Safety Phasing Plan (CSPP) for the project. The Contractor is required to review the CSPP and submit a Safety Plan Compliance Document (SPCD). Work within the AOA is not permitted to begin until the SPCD has been reviewed and approved by CDA.

D. Confidentiality of Project Data.

Unless agreed otherwise by the Commissioner in writing, all Deliverables, data, findings or information in any form prepared, assembled or encountered by or provided to or by Contractor in connection with this Contract (collectively, "Project Data") are property of the City and are confidential. Contractor agrees that, except as specifically authorized by the Commissioner in writing or as may be required by law, Project Data will be made available only to the Commissioner, his designees, and, on a need-to-know basis, Contractor's employees, Subcontractors, material suppliers and consultants. Contractor acknowledges that Project Data may contain information vital to the security of the airport ("Airport Security Data"). If Contractor fails to safeguard the confidentiality of Airport Security Data, Contractor is liable for the reasonable costs of actions taken by the City, the airlines, the Federal Aviation Administration ("FAA"), or the Transportation Security Administration ("TSA") that the applicable entity, in its sole discretion, determines to be necessary as a result, including without limitation the design and construction of improvements, procurement and installation of security devices, and posting of guards. All Subcontracts or purchase orders entered into by the Contractor, with parties providing material, labor or services to complete the Work, must contain the language of this section. If the Contractor fails to incorporate the required language in all Subcontracts or purchase orders, the provisions of this section are deemed incorporated in all Subcontracts or purchase orders.

E. Confidentiality of Airport Security Data

Contractor acknowledges that information vital to the security of the airport ("Airport Security Data"), including but not limited to Sensitive Security Information as defined by 49 CFR Part 1520, may be prepared, assembled, encountered by, or provided to Contractor in connection with this Contract. Contractor has an ongoing duty to protect confidential information, including but not limited to any Airport Security Data. If Contractor fails to safeguard the confidentiality of Airport Security Data, Contractor is liable for the reasonable costs of actions taken by the City, the airlines, the Federal Aviation Administration ("FAA"), or the Transportation Security Administration ("TSA") that the applicable entity, in its sole discretion, determines to be necessary as a result, including without limitation the design and construction of improvements,

procurement and installation of security devices, and posting of guards. All Subcontracts or purchase orders entered into by the Contractor, with parties providing material, labor or services in relationship to this Contract, must contain the language of this section. If the Contractor fails to incorporate the required language in all Subcontracts or purchase orders, the provisions of this section are deemed incorporated in all Subcontracts or purchase orders.

END OF XV

XVI. INSURANCE, INDEMNITY AND BONDS

A. Indemnity.

1. The Contractor agrees to protect, defend, indemnify, and hold the City, the Construction Manager, and their respective officers, officials, representatives, and employees (hereafter "the Indemnified Parties"), free and harmless from and against any and all claims, damages, demands, injury or death, in consequence of the granting of this Contract or arising out of or being in any way connected with the Contractor's performance under this Contract except as otherwise provided in 740 ILCS 35. The indemnification provided herein will be effective to the maximum extent permitted by applicable law. This indemnity extends to all legal costs including without limitation: attorney fees, costs, liens, judgments, settlements, penalties, professional fees, or other expenses incurred by the City, including but not limited to, fines and penalties imposed by public bodies and the reasonable settlement of such claims. This indemnification is not limited by any amount of insurance required under this Contract. Further, the indemnity contained in this section will survive the expiration or termination of this Contract.

To the extent permissible by law, Contractor waives any limits to the amount of its obligations to indemnify, defend or contribute to any sums due under any losses, including any claim by an employee of Contractor that may be subject to the Workers Compensation Act, 820 ILCS 305/1 et seq or any other law or judicial decision (such as, *Kotecki v. Cyclops Welding Corporation*, 146 Ill. 2d 155 (1991)). The City, however, does not waive any limitations it may have on its liability under the Illinois Pension Code.

2. The Contractor shall be solely responsible for the defense of any and all claims, demands, or suits against the Indemnified Parties, including without limitation, claims by an employee, subcontractors, agents, or servants of Contractor even though the claimant may allege that the Indemnified Parties were in charge of the Work or allege negligence on the part of the Indemnified Parties. The City will have the right, at its sole option, to participate in the defense of any such suit, without relieving the Contractor of its obligations hereunder.
3. "Injury" or "damage" as these words are used in this section will be construed to include, but shall not be limited to, injury or damage consequent upon the failure of or use or misuse by Contractor, its subcontractors, agents, servants, or employees, of any scaffolding, hoist cranes, stays, ladders, supports, rigging, blocking or any and all other kinds of items of equipment, whether or not the same be owned, furnished, or loaned by the indemnified Parties.
4. The Contractor will promptly provide, or cause to be provided, to the Commissioner and City Corporation Counsel copies of such notices as Contractor may receive of any claims, actions, or suits as may be given or filed in connection with the Contractor's performance or the performance of any Subcontractor and for which the Indemnified Parties are entitled to indemnification hereunder and to give the Indemnified Parties authority, information, and assistance for the defense of any claim or action.

B. Performance and Labor & Material Payment Bonds.

1. The Contractor will, within five (5) calendar days of receipt of written notice from the City, deliver to the Chief Procurement Officer a Performance and Payment Bond in the amount of 100% of the Contract value. Such bond shall comply with the provisions of 30 ILCS 550/1 et seq., as amended, and of Chapter 2, Section 2-92-030 of the Municipal Code of Chicago, as amended. The surety or sureties issuing the bond must be acceptable to the City Comptroller and the bond must be in the form attached to Part One. The surety for the bond must appear on the listing of sureties approved by the U.S. Department of Treasury in its Circular 570 and shall be a Best's Key Rating Guide of "B+", Class XI, or greater. The surety must have bonding capacity per Circular 570 equal to or in excess of the Contract Price without need for reinsurance. The bond shall remain in effect for the

warranty period required by the Contract. Contractor may not change its surety without prior written consent of the Chief Procurement Officer

2. If at any time the surety or sureties, or any one of them, upon such bond become insolvent, or shall be in the opinion of the Chief Procurement Officer be unsatisfactory or unable to respond in damages in case of liability on such bond, the Chief Procurement Officer will notify the Contractor and direct that a satisfactory surety or sureties be provided forthwith.
3. No payment shall be made on account of Work done by the Contractor until satisfactory sureties have been provided as directed. In case of neglect, failure, or refusal of the Contractor to provide satisfactory sureties when so directed within ten (10) days after such notification, the Chief Procurement Officer may declare this Contract forfeited, but such forfeiture shall not release the Contractor or its surety or sureties from any liability which may have accrued prior to, on or after the date of forfeiture.

C. Insurance.

The Contractor must procure and maintain at all times, at Contractor's own expense, until Final Acceptance of the Work, during the warranty period, and during the time period following final acceptance, if Contractor is required to return and perform additional work for any reason, the types of insurance specified in Part One of the Contract Documents, with insurance companies authorized to do business in the State of Illinois covering all operations under this Contract, whether performed by the Contractor or by Subcontractors. If the Contractor returns to do any Work on the Project after final acceptance, including Warranty or any other repair work, the Contractor and any Subcontractors must procure the insurance coverages required by Part One of the Contract, and provide certificates of insurance for the coverages to the Commissioner, prior to beginning the work. Upon written request by the Commissioner, the Contractor will allow the Commissioner to review and copy any original insurance policies that the Contractor is obligated to maintain under this Contract.

1. The Contractor hereby waives any and every claim for recovery from the City for any and all injuries and losses arising under this Contract or in any way related to the Work, including but not limited to any claim for personal injury loss of or damage to the Work or to the contents thereof, which injury, loss, or damage is covered or should be covered pursuant to the insurance requirement of this Contract. As this waiver will preclude the assignment of any claim by subrogation (or otherwise) to an insurance company (or any other person), the Contractor agrees to give each insurance company which has issued, or in the future may issue, its policies of insurance, written notice of the terms of this waiver, and to have said insurance policies properly endorsed, if necessary, to prevent the invalidation of insurance coverage by reason of said waiver. The Contractor must require each Subcontractor to include similar waivers of subrogation in favor of the City.
2. The City Risk Management Department reserves the right to change, modify, or delete these requirements, including without limitation the right to request that the Contractor provide additional types of insurance.

END OF XVI

XVII. CLAIMS AND DISPUTES

A) Claims.

- a) This provision of the Contract applies to Change Claims under Article X and all other claims made under the Contract (collectively, "Claims").
- b) Any claim made by the Contractor regarding the Project must be made in accordance with the requirements stated below.
 1. The Contractor expressly consents to both the time requirements and notice content requirements for making a Claim or Dispute under this Section XVII. The Contractor acknowledges that the notice requirements set forth in this Section XVII will be strictly enforced and agrees that any failure on the part of the Contractor to provide notice strictly in accordance with the requirements of this Section XVII will constitute a waiver of the Contractor's right to make a Claim or submit a Dispute to the Chief Procurement Officer. The Contractor further understands and agrees that, notwithstanding any case law decision to the contrary, the notice requirements of this Section XVII will not be subject to or diminished by any claim on the part of the Contractor that the Commissioner or Chief Procurement Officer or any person acting on behalf of either of them had actual or constructive knowledge of any Claim or Dispute or any facts or circumstances supporting any such Claim or Dispute.
 2. The Contractor must notify in writing the Construction Manager of any Claim of site conditions differing materially from those indicated in the Contract documents as required by Article III.
 3. The Contractor must provide a Notice of Claim, in writing, to the Construction Manager of any Change Claim as required by Section X.
 4. The Contractor must provide Notice of Claim in writing to the Construction Manager of any claim related to time as required by Article VIII.
 5. The Contractor must provide a "Notice of Claim" to the Construction Manager within ten (10) days of being notified by the Construction Manager that a payment deduction will be made for placement of asphalt or concrete, based on the percent within limits calculation in the Technical Specifications if the Contractor does not agree to the payment deduction.
 6. The Contractor must provide notice in writing to the Construction Manager of any other Claim that may be made, within five (5) days after starting the work that is affected by the Claim. The Notice of Claim shall be referenced as a Notice of Claim Related Work and must state the nature of the Claim, the Work that is affected by the claim, and the anticipated duration of the Work.
 7. If the Contractor and Construction Manager are unable to agree on the adjustment of Contract price and/or Contract Completion Date in connection with a Notice of Claim, the Contractor must, within fifteen (15) days of completing the related work, provide written notice to the Construction Manager of the amount of adjustment in Contract Price and/or Substantial Completion Date sought by the Contractor and the contractual and factual basis for each. The Contractor will also designate this document "Notice of Claim."
 8. The Construction Manager will, within thirty (30) days from the date of receipt of the Notice of Claim, respond by: requesting a meeting with the Contractor; making a written request for additional information from the Contractor including but not limited to a general statement of the basis for the Notice of Claim, the facts underlying the Notice of Claim, the notice to the Construction Manager of the event that gave rise to

the Notice of Claim, reference to the applicable Contract provisions, and all documentation that describes, relates to and supports the Notice of Claim; taking other action to attempt to resolve the Notice of Claim; and/or advising the Contractor in writing that it should file a Claim with the Commissioner. Any steps taken by the Construction Manager to resolve the Notice of Claim will not exceed sixty (60) days from receipt of the Notice of Claim unless the Contractor agrees to an additional amount of time in writing. The Contractor and Construction Manager may agree on a proposed adjustment of Contract Price and/or Contract time in resolution of a Notice of Claim, which proposal is subject to approval by the City in a Contract Modification under the requirements of Section X.D.

9. If the Notice of Claim cannot be resolved between the Contractor and the Construction Manager within the time frame stated in Section X.G.3 for a Notice of Claim for a Change Claim or Section XVII.A.2.g for all other Notices of Claim, the Contractor must file a Claim with the Commissioner within ten (10) days of being advised to do so by the Construction Manager.
10. The Claim will include: a general statement of the basis for the Claim, all the facts underlying the Claim, of copy of the Notice of Claim to the Construction Manager of the event that gave rise to the Claim, reference to the applicable Contract provisions, and all documentation that describes, relates to and supports the Claim. The claim must be certified by the Contractor. A "certified claim" shall be made under oath by a person duly authorized by the claimant, and shall contain a statement that:
 - (1) The claim is made in good faith;
 - (2) The claim's supporting data are accurate and complete to the best of the person's knowledge and belief;
 - (3) The amount of the claim accurately reflects the amount that the claimant believes is due from the City, and
 - (4) The certifying person is duly authorized by the claimant to certify the claim.
11. The Claim must be sent by the Contractor to the Commissioner and copied to the Construction Manager.
12. The Commissioner has fifteen (15) days from receipt of the Claim to render a written "final decision of the Commissioner" stating the Commissioner's factual and contractual basis for the decision. However, the Commissioner may take an additional period, not to exceed ten (10) days, to render the "final decision". If the Commissioner does not render a "Final Decision of the Commissioner" within the prescribed time frame, then the claim shall be deemed denied by the Commissioner.
13. After receiving the Commissioner's final decision, the Contractor must accept the final decision of the Commissioner or file a Dispute with the Chief Procurement Officer within thirty (30) days in accordance with Section XVII.B, "Disputes".
14. If the Contractor accepts a final decision of the Commissioner which includes an adjustment in Contract Price and/or Contract Completion Date, it is subject to execution of a Contract Modification in accordance with Section X.D.
15. If the Contractor does not accept a final decision of the Commissioner and fails to file a Dispute with the Chief Procurement Officer within thirty (30) days, this will constitute a waiver of the claim and dispute. In the event of such waiver, the Commissioner may file a Dispute, pursuant to Section XVII.B, with the Chief Procurement Officer seeking a final decision as to the Claim.

B) Disputes.

- a) **Contractor's Request:** In the event of any dispute between the Contractor and the Commissioner which the Contractor and the Commissioner have attempted, but been unable, to resolve including without limitation changes, time extensions, claims, allowable costs or any other issues of fact or Contract interpretation based upon, relating to, or arising under the Contract, a request for resolution must be submitted to the City Chief Procurement Officer by the Contractor for final determination; however, the default or termination of the Contractor are not matters that may be disputed under this provision of the Contract. The Contractor's failure to submit the dispute within thirty (30) days of final decision of the Commissioner is a waiver of the dispute. The Chief Procurement Officer may consider issues of Contract interpretation in connection with decisions to be made in resolving disputes.
- b) **Request Requirements:** Requests for resolution of disputes must be made by the Contractor in writing, specifically referencing this section, and include: 1) the issue(s) presented for resolution; 2) a statement of the respective positions of the Contractor and Commissioner; 3) the facts underlying the dispute; 4) reference to the applicable provision of the Contract by page and section; 5) the identity of any other parties believed to be necessary to the resolution of the dispute; 6) all documentation which describes and relates to the dispute and 7) if applicable, a statement explaining why the Contractor believes that prior to rendering a final decision, the Chief Procurement Officer should meet with the Contractor, Commissioner's representative or any other parties believed to be necessary to the resolution of the dispute. Copies of the request for resolution of the dispute must promptly be provided to the Commissioner and Construction Manager on the same day it is given to the Chief Procurement Officer. In addition, any correspondence that relates to the Dispute, which the Contractor provides to the Chief Procurement Officer, must be copied to the Commissioner and Construction Manager. The Commissioner shall have thirty (30) days to respond in writing to the Contractor's submission by supplementing the Contractor's submission or to provide its own submission to the Chief Procurement Officer and Contractor. However, the Commissioner may request and the Chief Procurement Officer may allow an additional period of time to respond. Failure by the Commissioner to respond shall not be deemed to be an admission of any allegations made in the request for dispute resolution, but may be deemed to constitute a waiver of the opportunity to respond to such allegation(s), if any, at this stage of the dispute. The Chief Procurement Officer's decision may thereafter be reached in accordance with such other information or assistance as may be deemed reasonable, necessary or desirable by the Chief Procurement Officer.
- c) **Chief Procurement Officer's Decision:** The Chief Procurement Officer's final decision shall be rendered in writing no more than thirty-five (35) days after receipt of the response of the Commissioner was filed or was due unless the Chief Procurement Officer notifies the Contractor and Commissioner before the end of the thirty-five (35) day period that an additional period, not to exceed thirty (30) days, is needed for the Chief Procurement Officer to respond. The Chief Procurement Officer's decision shall be conclusive, final, and binding on all parties unless a judicial determination is sought in accordance with the provisions set forth below.
- d) **Implementation of Decision:** The Chief Procurement Officer's final decision shall be implemented through a Contract Modification which shall be made a part of the Contract with or without the signature of the Contractor if the Contractor refuses to sign the Contract Modification.
- e) **Contractor's Remedy:** If either the Contractor or Commissioner does not agree with the decision of the Chief Procurement Officer, the sole and exclusive remedy is judicial review by a common law writ of certiorari. Unless such review is sought within thirty-five (35) days of receipt of the Chief Procurement Officer's decision, all right to seek judicial review is waived.

- f) Contractor's Performance of Work: The Contractor may not withhold performance of and must prosecute any Work required by the Commissioner during the dispute resolution period, including judicial resolution. The Contractor must prosecute all of its Work including any disputed Work with the same diligence and effort as if no dispute existed. The Chief Procurement Officer's written determination must be complied with pending final resolution, including judicial resolution of the dispute. Neither the Chief Procurement Officer's determination, nor the actions of the Contractor or the Commissioner in connection therewith, nor the continued performance by either party, shall constitute an admission as to any factual and/or legal position in connection with the dispute or a waiver of any rights under the Contract.
- g) Administrative Appeal of Dispute: The Contractor must follow the procedures set out in this Article XVII, "Disputes and Claims", and receive the Chief Procurement Officer's final decision as a condition precedent to filing a judicial review of the decision.

END OF XVII

XVIII. EVENTS OF DEFAULT AND TERMINATION

A. Chief Procurement Officer's Right.

The Commissioner may notify and recommend to the Chief Procurement Officer that in the Commissioner's opinion the Contractor has committed an event of default. The Chief Procurement Officer may, at his or her sole discretion, exercise the right to send the Contractor notice under paragraph C.1 or C.2 of this section.

B. Events of Default.

The Contractor's failure to perform any of its obligations under the Contract, including but not limited to the following, are events of default:

1. Failure to begin the Work at the time specified.
2. Failure to perform the Work with sufficient workers and equipment or with sufficient materials to ensure the completion of Work or any part of the Work within the time specified by the Contract.
3. Failure to perform in accordance with the Contract Documents.
4. Failure to remove materials, repair, or promptly replace Work that was rejected as defective or unsuitable.
5. Unauthorized discontinuance of the Work.
6. Interruption or delay of Work for reasons within Contractor's control, including, but not limited to, labor unrest or disputes.
7. Insolvency, bankruptcy, or assignment for the benefit of creditors that negatively impacts Contractor's ability to pay Subcontractors or perform the Work.
8. Failure to pay Subcontractors or material suppliers.
9. Failure to carry on the Work in a manner acceptable to the Commissioner or in a manner that complies with any laws applicable to the performance of the Work.
10. Failure to comply with federal, state, local, or Airport safety and security requirements, including but not limited to an approved Project safety program.
11. Failure to update its Economic Disclosure Statement to reflect any changes in information, including but not limited to changes in ownership, and to provide it to the City.
12. Use of a Subcontractor without the Chief Procurement Officer's approval.
13. Failure to comply with any other term of this Contract in any material respect.
14. A default by Contractor or Affiliate under any other City contract.
15. The Contractor's failure to be licensed as a "General Contractor" as required by Chapter 4-36 of the Chicago Municipal Code, at all times throughout the term of the Contract or Contractor's loss of its general license.
16. Disqualification as a MBE or WBE of the Contractor or any joint venture partner, Subcontractor or supplier if its status as an MBE or WBE was a factor in the award of the Contract and such status was misrepresented by the Contractor.

17. Any violation of the Municipal Code of the City of Chicago, whether or not in connection with the Contract,
18. Failure to comply with any other term of this Contract that states an event of default.

C. Notices.

If there is an event of default the Chief Procurement Officer, in his or her sole discretion, may send the Contractor notice under either subparagraph C.1 or C.2.

1. Contractor's Notification of Termination for Default: If there is an event of default as defined in Paragraph B., the Chief Procurement Officer, at his or her sole discretion, may notify the Contractor in writing that the Contractor is terminated. The Chief Procurement Officer's decision and declaration of default shall be final and effective. Written notification of the default and termination of the Contract shall be provided to the Contractor and its surety by the Chief Procurement Officer.
2. Notice and Cure: In the event the Chief Procurement Officer gives the Contractor notice in writing of actions constituting default, under this Section XVIII.C, the Contractor must cure the default within ten (10) days of receipt of the notice from the Chief Procurement Officer. If the Chief Procurement Officer receives written notification from the Commissioner that the Contractor has not cured the default set out in the notice within the ten day cure period, the Chief Procurement Officer may declare that the Contract is terminated for default. The Chief Procurement Officer's declaration of termination shall be final and effective. Written notification of notice to cure and termination for default shall be provided to the Contractor and surety by the Chief Procurement Officer. The failure of the Chief Procurement Officer to default the Contractor within ten (10) days does not waive the City's right to terminate the Contract pursuant to the cure notice.

D. Remedies.

Upon an event of default as defined in Section XVIII.B, the City may invoke any or all of the following remedies:

1. The right of set off against any payments due or to become due to the Contractor on this Contract or any other contract with the City.
2. The right to take over and complete the Work, or any part thereof, either directly or through others and to hold the Contractor liable for any amounts paid for such Work above those amounts that the City would have paid Contractor for that same Work.
3. The City may use the Contractor's Subcontractors, material and equipment to complete the Work. Upon the City's notification to the Contractor that it intends to invoke this remedy, any and all rights that the Contractor may have in or under its subcontracts must be assigned to the City based upon the collateral assignment required by General Conditions section V.C. The sole obligation accepted by the City under such Subcontracts shall be to pay for Work satisfactorily performed after the date of the assignment. In the event that a conditional assignment has not been executed, the Contractor must execute or cause to be executed any assignment, agreement, or other document which may be necessary, in the sole opinion of City's legal counsel, to evidence or effect compliance with this provision. The Contractor must promptly deliver such documents upon the City's request. In the case of any Subcontract so assigned and accepted by the City, the Contractor shall remain liable to the Subcontractors for any payment already invoiced to and paid by the City, and for any claim, suit, or cause of action based on or the result of any error, omission, negligence, fraud, willful or intentionally tortuous conduct, or any other act or omission, or breach of Contract by the Contractor, its officers, employees, agents, and other Subcontractors, arising prior to the date of assignment to the City, when such claim, suit, or cause of action has not been discharged, disposed of, or otherwise

resolved as of that date. The Contractor must notify its Subcontractors of these requirements.

4. The right to terminate the Contract as to any or all of the Work yet to be performed. In the event of termination, all costs and changes incurred by the City, together with the cost of completing the Work, will be deducted from any moneys due or which may become due to the Contractor. In case the expense so incurred by the City will be less than the sum which would have been payable under the Contract, if it had been completed by the Contractor and had not been forfeited by the Contractor, then the Contractor shall be entitled to receive the difference, subject to any claims or liens thereon, which may have been filed or any prior assignment filed with the City. In case the expense incurred by the City will exceed the sum which would have been payable under the Contract, the Contractor and the surety will be liable and will pay to the City the amount of such excess.
5. The right of specific performance, an injunction, or any other appropriate equitable remedy, as may be applicable.
6. The right of money damages, including but not limited to all expert witness or other consultant fees, court costs, and reasonable attorney's fees which the City may incur in connection with any claim, suit, or action based upon, related to, or arising from, directly or indirectly, an Event of Default hereunder.
7. The right to withhold all or any part of the Contractor's compensation.
8. The right to declare the Contractor or its Affiliate in default under any other City contract and to deem the Contractor non-responsible in future contracts to be awarded by the City.

E. Nonexclusivity.

The remedies under the terms of this Contract are not intended to be exclusive of any other remedies provided, but each and every such remedy shall be cumulative and shall be in addition to any other remedies, existing now or hereafter, at law, or in equity. No delay or omission to exercise any right or power accruing upon any Event of Default shall impair any such right or power, nor shall it be construed as a waiver of any Event of Default or acquiescence therein, and every such right and power may be exercised from time to time and as often as may be deemed expedient.

F. Court Determination.

In the event the Contractor is terminated by the City pursuant to paragraph C.1 or C.2 and it is subsequently determined by a Court of competent jurisdiction that such termination was not justified, such termination shall thereupon be deemed an Early Termination and the provisions of paragraph "H" shall apply.

G. Discretion of Chief Procurement Officer.

1. Whether to declare the Contractor in default is within the sole discretion of the Chief Procurement Officer and neither that decision nor the factual basis for it is subject to review or challenge under Article XVII, "Disputes and Claims" of the Contract's General Conditions.
2. In the event of termination of the Contract by the Chief Procurement Officer under Section XIII.C.1 or C.2, the Commissioner may use the material and equipment, whether owned or leased, which is within the scope of the Work or necessary for the completion thereof which has been paid for by the City (whether located on or off the site), to complete the Work and the Contractor shall receive no further payment until the Work is completed. Upon completion, if the unpaid balance of the price exceeds City's cost of completion, such excess shall be paid to the Contractor. However, if the cost of completion exceeds

the unpaid balance of the price, the Contractor must pay the difference to the City immediately upon demand.

H. Early Termination.

1. The City, through the Chief Procurement Officer, reserves the absolute right to terminate the Work of the Contractor, or any part thereof, by written notice stating the effective date of such termination. Immediately upon receipt of such notice, the Contractor must then provide similar written notice to the affected Subcontractor(s); whereupon such Contractor and Subcontractor(s) must, except for services necessary for the orderly termination of the Work: (i) stop all Work and place no further order or Subcontracts for materials, services, equipment or supplies; (ii) assign to the City, in the manner and to the extent directed, all of the rights of the Contractor(s) under Work orders, purchase orders and Subcontracts or sub-subcontracts relating to the portion of the Work that has been completed; (iii) terminate work orders, purchase orders, and Subcontracts outstanding to the extent that they relate to the Work and are not assigned to the City; (iv) take any action necessary to protect property in the Contractor's possession in which the City has or may acquire an interest; and (v) take any other action toward termination of the Work which the City may direct.
2. Contractor's compensation for all Work provided prior to the effective date of termination shall be on the same basis as provided in this Contract, but Contractor shall not be entitled to any lost profits on work that was terminated. The City shall also pay Contractor for any materials or equipment that were ordered in accordance with the approved Project CPM Schedule prior to Contractor's receipt of the notice of termination and that could not be cancelled, provided that the materials and equipment are delivered to the City and are found acceptable.

END OF XVIII

XIX. COMPLIANCE WITH ALL LAWS

A. Contractor Must Comply with All Laws.

The Contractor will at all times observe and comply, and will cause its Subcontractors to observe and comply, with all applicable Federal, State and local laws, ordinances, rules, regulations, and executive orders, now existing or hereinafter in effect, which may in any manner affect the performance of the Contract. Provision(s) required by law, ordinance, rules, regulations, or executive orders to be inserted in this Contract will be deemed inserted, whether or not they appear in this Contract, or, upon application by either party, this Contract will forthwith be physically amended to physically make such insertion; however, in no event will the failure to insert such provision(s) prevent the enforcement of such provision(s) or this Contract.

B. Certification of Compliance with Laws.

By entering into this Contract with the City, Contractor certifies to the best of its knowledge and belief that it, its principals and any subcontractors used in the performance of this contract, meet City requirements and have not violated any City or sister agency policy, codes, state, federal, or local laws, rules or regulations and have not been subject to any debarment, suspension or other disciplinary action by any government agency. Additionally, if at any time the contractor becomes aware of such information, it must immediately disclose it to the City.

C. Airport Rules and Regulations.

The Contractor will comply, and will use all reasonable efforts to cause its workers, Subcontractors, guests, and invitees to comply, with all rules and regulations governing the conduct and operation of the Airport which may be promulgated from time to time by the Commissioner.

D. Title VI List of Pertinent Nondiscrimination Authorities.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the non-discrimination statutes and authorities ("Title VI Pertinent Nondiscrimination Statutes and Authorities"), as amended, that are listed in Department of Transportation Order 1000.12 and Appendix B of Appendix 4 of FAA Order 1400.11, "Nondiscrimination in Federally-Assisted Programs at the Federal Aviation Administration"; these include but are not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, contractor must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discrimination because of sex in education programs or activities (20 U.S.C. 1681 et seq).

E. Non-Discrimination.

1. Non-discrimination in Employment; Affirmative Action:

- a. It will be an unlawful employment practice for the Contractor to fail to hire, to refuse to hire, to discharge, or to discriminate against any individual with respect to compensation, or the terms, conditions, or privileges of employment, because of such individual's race, color, religion, sex, age, handicap, or national origin; or to limit, segregate, or classify employees or applicants for employment in any way which would deprive or tend to deprive any individual of employment opportunities or otherwise, adversely affect such individual's status as an employee, because of such individual's race, color, religion, sex, age, handicap, or national origin.
- b. Contractor assures that it will undertake an affirmative action program as required by 14 CFR Part 152, Subpart E, to insure that no person will on the grounds of race, creed, color, national origin, or sex be excluded from participation in any employment activities covered in 14 CFR Part 152, Subpart E. Contractor assures that no person will be excluded on these grounds from participation in or receiving the services or benefits of any program or activity covered by this subpart. Contractor assures that it will require that its covered suborganizations provide assurance to Contractor that they similarly will undertake affirmative action programs and they will require assurances from their sub-organizations, as required by 14 CFR Part 152, Subpart E, to the same effect.
- c. The Contractor will comply with The Civil Rights Act of 1964, 42 U.S.C. Sec. 2000 et seq. (1981), as amended. The Contractor will further comply with Executive Order No. 11,246, 30 Fed. Reg. 12,319 (1965), reprinted in 42 U.S.C. 2000(e) note, as amended by Executive Order No. 11,375 32 Fed. Reg. 14,303 (1967) and by Executive Order No. 12,086, 43 Fed. Reg. 46,501 (1978); the Age Discrimination Act, 43 U.S.C. Sec. 6101-6106 (1981); the Rehabilitation Act of 1973, 29 U.S.C. Sec. 793-794 (1981); the Americans with Disabilities Act, P.L. 101-336; 41 CFR part 60 et seq. (1990); Air Carriers Access Act, 49 U.S.C.A. 1374; and, FAA Circular No. 150/5100 15A.
- d. General Civil Rights Provisions

The Contractor agrees that it will comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the Contractors from the bid solicitation period through the completion of the Contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

This provision also obligates the tenant/concessionaire/lessee or its transferee for the period during which Federal assistance is extended to the airport through the Airport Improvement Program, except where Federal assistance is to provide, or is in the form of personal property; real property or interest therein; structures or improvements thereon.

In these cases, the provision obligates the party or any transferee for the longer of the of the following periods: (a) the period during which the property is used by the airport sponsor or any transferee for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits; or (b) the period during which the airport sponsor or any transferee retains ownership or possession of the property.

2. Civil Rights Act of 1964, Title VI, Compliance With Nondiscrimination Requirements.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

a. Compliance with Nondiscrimination Requirements

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

- b. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Statutes and Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
- c. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
- d. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
- e. Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
- f. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be

appropriate, including, but not limited to:

- i. Withholding payments to the contractor under the contract until the contractor complies; and/or
 - ii. Cancelling, terminating, or suspending a contract, in whole or in part.
 - g. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.
3. State Requirements: The Contractor will comply with the Illinois Human Rights Act, 775 ILCS 5/1-101 et seq. (1990), as amended; the Discrimination in Public Contracts Act, 775 ILCS 10/0.01 et seq. (1990), as amended; and the Environmental Barriers Act., 410 ILCS 25/1 et seq.
 4. City Requirements:
 - a. The Contractor will comply with the Chicago Human Rights Ordinance, Chapter 2-160, Section 2-160-010 et seq. of the Municipal Code (1990), as amended.
 - b. Further, the Contractor will furnish such reports and information as requested by the Chicago Commission of Human Relations.

Subcontractors: The Contractor agrees that all of the above provisions will be incorporated in all agreements entered into with any suppliers of materials, providers of services, subcontractors of any tier, and labor organizations which furnish skilled, unskilled and craft union skilled labor, or which may provide any such materials, labor or services in connection with this Contract.

F. General Civil Rights (Airport and Airway Improvement Act of 1982, Section 520).

The contractor agrees that it will comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

G. Illinois Humans Rights Act.

The Contractor will comply with the provisions of the Equal Employment Opportunity Clause, the Illinois Human Rights Act, 775 ILCS 5/101 et seq., as amended, and the rules and regulations of the Illinois Department of Human Rights.

H. Prevailing Wage.

The Contractor will comply with 820 ILCS 130/0.01 et seq., as it may be amended (the "Act"), so long as the Act is in effect, in order to ensure that such persons covered by the Act are paid the prevailing wage rate as ascertained by the Illinois Department of Labor. The specified rates to

be paid to all laborers, workers, and mechanics for such craft or type of worker or mechanic as of the date of advertisement of this Contract are included in Part One of the Contract Documents. If the Illinois Department of Labor revises such prevailing wage rates, the revised rates will apply to this Contract, and Contractor will not be entitled to additional compensation therefore.

1. The term "general prevailing hourly rate", means the hourly cash wages plus fringe benefits for health and welfare, insurance, vacations and pensions paid generally, in the locality in which the Work is being performed, to employees engaged in Work of a similar character on public Work.

I. Minimum Wage, Mayoral Executive Order 2014-1

Mayoral Executive Order 2014-1 provides for a fair and adequate Minimum Wage to be paid to employees of City contractors and subcontractors performing work on City contracts.

If this contract was advertised on or after October 1, 2014, Contractor must comply with Mayoral Executive Order 2014-1 and any applicable regulations issued by the CPO. As of July 1, 2017, the Minimum Wage to be paid pursuant to the Order is \$13.45 per hour. Every July 1, the hourly wage specified by the Executive Order shall increase in proportion to the increase, if any, in the Consumer Price Index for All Urban Consumers most recently published by the Bureau of Labor Statistics of the United States Department of Labor. Any hourly wage increase shall be rounded up to the nearest multiple of \$0.05. Such increase shall remain in effect until any subsequent adjustment is made.

The Minimum wage must be paid to:

- All employees regularly performing work on City property or at a City jobsite.
- All employees whose regular work entails performing a service for the City under a City contract.

The Minimum Wage is not required to be paid to employees whose work is performed in general support of contractors operations, does not directly relate to the services provided to the City under the contract, and is included in the contract price as overhead, unless that employee's regularly assigned work location is on City property or at a City jobsite. It is also not required to be paid by employers that are 501(c)(3) not-for-profits.

Except as further described, the Minimum Wage is also not required to be paid to categories of employees subject to subsection 4(a)(2), subsection 4(a)(3), subsection 4(d), subsection 4(e), or Section 6 of the Illinois Minimum Wage Law, 820 ILCS 105/1 et seq., in force as of the date of this Contract or as amended. Nevertheless, the Minimum Wage is required to be paid to those workers described in subsections 4(a)(2)(A) and 4(a)(2)(B) of the Illinois Minimum Wage Law.

Additionally, the Minimum Wage is not required to be paid to employees subject to a collective bargaining agreement that provides for different wages than those required by Mayoral Executive Order 2014-1, if that collective bargaining agreement was in force prior to October 1, 2014 or if that collective bargaining agreement clearly and specifically waives the requirements of the order.

If the payment of a Base Wage pursuant to MCC Sect. 2-92-610 is required for work or services done under this Contract, and the Minimum Wage is higher than the Base Wage, then the Contractor must pay the Minimum Wage. Likewise, if the payment of a prevailing wage is required and the prevailing wage is higher than the Minimum Wage, then the Contractor must pay the prevailing wage.

J. Living Wage Ordinance

MCC Sect. 2-92-610 provides for a living wage for certain categories of workers employed in the performance of City contracts, specifically non-City employed security guards, parking attendants, day laborers, home and health care workers, cashiers, elevator operators, custodial workers, and clerical workers ("Covered Employees"). Accordingly, pursuant to MCC Sect. 2-92- 610 and regulations promulgated thereunder:

if the Contractor has 25 or more full-time employees, and if at any time during the performance of the contract the Contractor and/or any subcontractor or any other entity that provides any portion of the Services (collectively "Performing Parties") uses 25 or more full-time security guards, or any number of other full-time Covered Employees, then The Contractor's obligation to pay, and to assure payment of, the Base Wage will begin at any time during the Contract term when the conditions set forth in (1) and (2) above are met, and will continue thereafter until the end of the Contract term.

As of July 1, 2017 the Base Wage is \$12.30. The current rate can be found on the Department of Procurement Services' website.

Note: As of July 1, 2016, the wage specified by Mayoral Executive Order 2014-1 is higher than the Base Wage rate. Therefore, the higher wage specified by the Executive Order (or other applicable rule or law) must be paid.

Each July 1st the Base Wage will be adjusted, using the most recent federal poverty guidelines for a family of four (4) as published annually by the U.S. Department of Health and Human Services, to constitute the following: the poverty guidelines for a family of four (4) divided by 2000 hours or the current base wage, whichever is higher. At all times during the term of this Contract, Contractor and all other Performing Parties must pay the Base Wage (as adjusted in accordance with the above). If the payment of prevailing wages is required for work or services done under this Contract, and the prevailing wages for Covered Employees are higher than the Base Wage, then the Contractor must pay the prevailing wage rates.

The Contractor must include provisions in all subcontracts requiring its Subcontractors to pay the Base Wage to Covered Employees. The Contractor agrees to provide the City with documentation acceptable to the CPO demonstrating that all Covered Employees, whether employed by the Contractor or by a subcontractor, have been paid the Base Wage, upon the City's request for such documentation. The City may independently audit the Contractor and/or subcontractors to verify compliance herewith.

Failure to comply with the requirements of this Section will be an event of default under this Contract, and further, failure to comply may result in ineligibility for any award of a City contract or subcontract for up to three (3) years.

Not-for-Profit Corporations: If the Contractor is a corporation having Federal tax-exempt status under Section 501(c)(3) of the Internal Revenue Code and is recognized under Illinois not-for-profit law, then the provisions above do not apply.

K. Chicago Minimum Wage Ordinance

On December 2, 2014, the City Council of the City of Chicago passed a new chapter of the Municipal Code, chapter 1-24, specifying a minimum wage of \$10.00 per hour to be paid to all workers within the City of Chicago, not just employees of City contractors, effective July 1, 2015.

As of July 1, 2016, the minimum wage under chapter 1-24 of the Municipal Code is \$10.50 per hour. Every July 1 until 2019, these wages will increase. In 2017, the minimum rate for non-tipped employees will be \$11.00/hour, in 2018, it will be \$11.50/hour, and in 2019, it will be \$12.00/hour. If the Contractor is required by Executive Order 2014-1, the Base Wage Ordinance, or any other law (e.g., the Prevailing Wage Act) to pay a higher rate, above the generally applicable Chicago minimum wage, the higher rate will apply.

L. Chicago Paid Sick Leave Ordinance

On June 22, 2016, the City Council passed a new section of the Minimum Wage Ordinance, which required paid sick leave and became effective on July 1, 2017, codified at Section 1-24-045 of the Municipal Code of Chicago. Contractor understands that, to the extent the Ordinance applies to its activities, it must comply with the Ordinance.

M. Non-Collusion, Bribery of a Public Officer or Employee.

The Contractor, in performing under this Contract, will comply with the Municipal Code of

Chicago, Section 2-92-320, as follows:

1. No person or business entity will be awarded a Contract or Subcontract if that person or business entity:
 - a. Has been convicted of bribery or attempting to bribe a public officer or employee of the City of Chicago, the State of Illinois, or any agency of the federal government or any state or local government in the United States, in that office's or employee's official capacity; or
 - b. Has been convicted of agreement or collusion among bidders or prospective bidders in restraint of freedom of competition by agreement to bid a fixed price, or otherwise; or
 - c. Has made an admission of guilt of such conduct described in "a" or "b" above which is a matter of record but has not been prosecuted for such conduct.
2. For purposes of this section, where an official, agent or employee of a business entity has committed any offense under this section on behalf of such an entity and pursuant to the direction or authorization of a responsible official thereof, the business entity will be chargeable with the conduct. One business entity will be chargeable with the conduct of an Affiliated agency.
3. Ineligibility under this section will continue for three years following such conviction or admission. The period of ineligibility may be reduced, suspended, or waived by the Chief Procurement Officer under certain specific circumstances. Reference is made to Section 2-92-320 for a detailed description of the conditions which would permit the Chief Procurement Officer to reduce, suspend, or waive the period of ineligibility.

N. Conflict of Interest.

1. No member of the governing body of the City or other units of government and no other officer, employee, or agent of the City or other unit of government who exercises any functions or responsibilities in connection with the Services to which this Contract pertains, will have any personal interest, direct, or indirect, in this Contract. No member of or delegate to the Congress of the United States or the Illinois General Assembly and no alderman of the City or City employee will be permitted to any share or part of this Contract or to any financial benefit to arise from it.
2. The Contractor covenants that it, its officers, directors and employees, and the officers, directors and employees of each of its members if a joint venture, and subcontractors, presently have no interest and will acquire no interest, direct or indirect, in the Project which would conflict in any manner or degree with the performance of the Work hereunder. The Contractor further covenants that in the performance of this Contract, no person having any such interest will be employed. The Contractor agrees that if the City, by the Commissioner in his or her reasonable judgment, determines that any of Contractor's work for others conflicts with the Work, the Contractor will terminate such other services immediately upon request of the City.

O. Office of Inspector General (Chapter 2-56 of the Municipal Code):

1. It will be the duty of any bidder, proposer, contractor, all subcontractors and every applicant for certification of eligibility for a City contract or program, and all officers, directors, agents, partners and employees of any bidder, proposer, contractor or such applicant to cooperate with the Inspector General in any investigation or hearing undertaken pursuant to Chapter 2-56 of the Chicago Municipal Code. The Contractor understands and will abide by all provisions of Chapters 2-56 of the Municipal Code of Chicago.
2. All Subcontracts or purchase orders entered into by the Contractor with parties providing materials, labor or services to complete the Work, must contain the following statement regarding Chapters 2-56 of the Chicago Municipal Code, Office of the Inspector General. If the Contractor fails to incorporate the required language in all Subcontracts or purchase orders, the provisions of these Sections are deemed to be incorporated in all Subcontracts or Purchase Orders.

“The Subcontractor, (material supplier or other entity) its officers, directors, agents, partners and employees must cooperate with the Inspector General in any investigation or hearing undertaken pursuant to Chapter 2-56 of the Chicago Municipal Code and the Subcontractor (material supplier or other entity) understands and will abide by all provisions of these sections of the Municipal Code.”

P. Governmental Ethics Ordinance (Chapter 2-156 of the Municipal Code).

1. The Contractor must comply with Chapter 2-156 of the Municipal Code of Chicago, "Governmental Ethics", including but not limited to Section 2-156-120 of this chapter pursuant to which no payment, gratuity or offer of employment will be made in connection with any City contract, by or on behalf of a subcontractor to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order.
2. Any contract negotiated, entered into, or performed in violation of any of the provisions of this chapter will be voidable as to the City.

Q. Business Relationships with Elected Officials.

1. Pursuant to Section 2-156-030(b) of the Municipal Code it is illegal for any elected official, or any person acting at the direction of such official, to contact either orally or in writing any other City official or employee with respect to any matter involving any person with whom the elected official has any business relationship that creates a financial interest on the part of the official, or the domestic partner or spouse of the official, or from whom or which he has derived any income or compensation during the preceding twelve months or from whom or which he reasonably expects to derive any income or compensation in the following twelve months. In addition, no elected official may participate in any discussion in any City Council committee hearing or in any City Council meeting or vote on any matter involving the person with whom the elected official has any business relationship that creates a financial interest on the part of the official, or the domestic partner or spouse of the official, or from whom or which he has derived any income or compensation during the preceding twelve months or from whom or which he reasonably expects to derive any income or compensation in the following twelve months.
2. Violation of Section 2-156-030 of the Municipal Code by any elected official with respect to this contract will be grounds for termination of this contract. The term financial interest is defined as set forth in Chapter 2-156 of the Municipal Code.

R. Anti-Scofflaw (Section 2-92-380 of the Chicago Municipal Code).

1. In accordance with Section 2-92-380 of the Municipal Code of Chicago and in addition to any other rights and remedies (including any of set-off) available to the City of Chicago

(City) under the Contract or permitted at law or in equity, the City will be entitled to set off a portion of the Contract Price or compensation due under the Contract, in an amount equal to the amount of the fines and penalties for each outstanding parking violation complaint and/ or the amount of any debt owed by the contracting party to the City.

2. For purposes of this section, "outstanding parking violation complaint" means a parking ticket, notice of parking violation, or parking violation complaint on which no payment has been made or appearance filed in the Circuit Court of Cook County within the time specified on the complaint. "Debt" means a specified sum of money owed to the City for which the period granted for payment has expired.
3. Notwithstanding 1 above, no such debt(s) or outstanding violation complaint (s) will be off set from the Contract Price or compensation due under the Contract if one or more of the following conditions are met:
 - a. The Contractor has entered into an agreement with the Department of Revenue, or other appropriate City department, for the payment of all outstanding parking complaints and/or debts owed to the City and the Contracting party is in compliance with the agreement; or
 - b. The Contractor is contesting liability for the amount of the debt in a pending administrative or judicial proceeding; or
 - c. The Contractor has filed a petition in bankruptcy and the debts owed in the City are dischargeable in bankruptcy.

S. Americans with Disabilities Act.

1. Any and all Work performed must comply with all Federal, State, and local laws and regulations regarding accessibility standards for disabled or environmentally limited persons including, but not limited to, the following: American with Disabilities Act, P.L. 101-336 (1990) and the Uniform Federal Accessibility Guidelines for Buildings and Facilities ("ADAAG") and, the Illinois Environmental Barriers Act, 410 ILCS 25/1 et seq. (1991), and the regulations promulgated thereto at 71 Ill. Adm. Code Ch. 1, Sec. 400.110. In the event that the above cited standards are inconsistent, the Contractor will comply with the standard providing greater Accessibility.

T. Economic Disclosure Statement and Contractor's Affidavit (EDS).

1. Prior to Contract award: Pursuant to Chapter 2-154-010, 2-154-020 and 2-154-030 of the Municipal Code of the City of Chicago, any person, or business entity of agency submitting a bid proposal to or contracting with the City of Chicago will be required to complete Section I, Disclosure of Ownership Interests, in the EDS. The Contractor must complete EDS(s) in which the Contractor (and its parent entities, if applicable) identifies all persons with 7.5% or more ownership interest and in which Contractor certifies (among other things) that the Contractor, its agents, employees, officers and any subcontractors: a) have not been engaged in or been convicted of bribery or attempted bribery of a public officer or employee of the City of Chicago, the State of Illinois, any agency of the federal government or any state or local government in the United States or engaged in or been convicted of bid-rigging or bid-rotation activities as defined in this section as required by the Illinois Criminal Code; b) do not owe any debts to the State of Illinois, in accordance with Section 65 ILCS 5/11-42.1-1 of the Illinois Municipal Code and c) are not presently debarred or suspended from public contracts.
2. Updates: Until Final Completion of the Project, the Contractor must provide, without need for request by the City, an updated EDS(s) if there is any change in ownership or change in any other circumstance that would render the EDS(s) then currently on file inaccurate or obsolete. Failure to provide an updated EDS(s) when required is an event of default. Any change in ownership that is within the Contractor's reasonable control (such as the sale of an ownership interest in a non-publicly traded entity) is subject to the prior written consent by the Commissioner and Chief Procurement Officer, and Contractor's failure to obtain

such prior written consent is an event of default. In the event of a change in ownership outside of the Contractor's reasonable control (such as acquisition of controlling interest in Contractor through purchase of shares on a public exchange), the City shall have the right to invoke the "Early Termination" provision if the Chief Procurement Officer determines such termination to be in the City's best interest.

U. MacBride Principles Ordinance.

1. The City of Chicago through the passage of the MacBride Principles Ordinance seeks to promote fair and equal employment opportunities and labor practices for religious minorities in Northern Ireland and provide a better working environment for all citizens in Northern Ireland.
2. In accordance with Section 2-92-580 of the Municipal Code of the City of Chicago, if the Contractor conducts any business operations, it will make all reasonable and good faith efforts to conduct any business operations in Northern Ireland in accordance with the MacBride Principles for Northern Ireland as defined in Illinois Public Act 85-1390 (1988 Ill. Laws 3220).
3. For those contractors who will take exception in competitive bid contracts to the provisions set forth above, the City will assess an eight percent (8%) penalty. This penalty will increase their bid price for the purpose of canvassing the bids in order to determine whose is to be the lowest responsible bidder and will not apply for purposes of any contract payment.
4. The provisions of this Section will not apply to contracts for which the City receives funds administered by the United States Department of Transportation, except to the extent Congress has directed that the Department of Transportation not withhold funds from states and localities that choose to implement selective purchasing policies based on agreement to comply with the MacBride Principles for Northern Ireland, or to the extent that such funds are not otherwise withheld by the Department of Transportation.

V. Employment of City and Project Area Residents. (Chicago Residency Ordinance, Section 2-92-330 of the Chicago Municipal Code).

1. Chicago and Project Area Residency Ordinance, Section 2-92-330 of the Chicago Municipal Code:
2. If the funding for this contract is \$100,000 or more and except as otherwise prohibited by law, the Contractor and all Subcontractors that perform work on the site on the construction project undertaken pursuant to this Contract will comply with the minimum percentage of total worker hours performed by eligible residents of the City of Chicago specified in Section 2-92-330 of the Municipal Code of Chicago and any rules or regulations adopted thereunder (7.5% of the total work hours must be performed by project area residents and 50% of the total work hours must be performed by city residents unless the Chief Procurement Officer determines otherwise). Work hours performed by project area residents are counted as work hours performed by city residents for purposes of calculating the minimum work hour percentage required to be performed by city residents. Provided, however, that in addition to complying with this percentage, the Contractor and all Subcontractors will make good faith efforts to utilize eligible residents of the City of Chicago in both unskilled and skilled labor positions.
3. A contractor or bidder may request a reduction or waiver of this minimum percentage level of Chicagoans as provided for in Section 2-92-330 in accordance with standards and procedures developed by the Chief Procurement Officer.
4. "City residents" means persons domiciled within the city.
5. "Project area residents" means persons domiciled within that part of the city designated as the project area in the information for bidders issued by the Department of Procurement Services.

6. "Domicile" means an individual's one and only true, fixed and permanent home and principal establishment.
7. "Eligible residents" means city residents and project area residents.
8. The Contractor will provide for the maintenance of adequate employee residency records to ensure that eligible residents are employed on the project. The Contractor and Subcontractors will maintain copies of personal documents supportive of every Chicago employee's actual record of residence.
9. Weekly certified payroll reports (U.S. Department of Labor Form WH-347 or equivalent) submitted to the Commissioner of the supervising department in triplicate, will identify clearly the actual residence of every employee on each submitted certified payroll. The first time that an employee's name appears on a payroll, the date the company hired the employee should be written in after the employee's name.
10. Full access to the Contractor's and Subcontractor's employment records will be granted to the Chief Procurement Officer, the Commissioner of the supervising department, the Superintendent of the Chicago Police Department, the Inspector General, or any duly authorized representative thereof. The Contractor and Subcontractors will maintain all relevant personnel data and records for a period of at least three years after final acceptance of the Work.
11. At the direction of the supervising department, affidavits and other supporting documentation will be required of the contractor to verify or clarify an employee's actual address when doubt or lack of clarity has arisen. Good faith efforts on the part of the Contractor to provide utilization of eligible residents (but not sufficient for the granting of a waiver request as provided for in the standards and procedures developed by the Chief Procurement Officer) will not suffice to replace the actual, verified achievement of the requirements of this section concerning the worker hours performed by eligible residents.
12. When work is completed, in the event that the City has determined that the Contractor failed to ensure the fulfillment of the requirement of this section concerning the worker hours performed by eligible residents or failed to report in the manner as indicated above, the City will thereby be damaged in the failure to provide the benefit of demonstrable employment to Chicagoans to the degree stipulated in this section. Therefore, in such a case of non-compliance it is agreed that 1/20 of 1 percent (1%), 0.0005, of the approved contract value for this contract will be surrendered by the Contractor to the City in payment for each percentage of shortfall toward the stipulated residency requirement. Failure to report the residency of employees entirely and correctly will result in the surrender of the entire liquidated damages as if no Chicago residents were employed. The willful falsification of statements in the certification of payroll data may subject the Contractor or Subcontractors or employee to prosecution.
13. Nothing herein provided will be construed to be a limitation upon the "Notice of Requirements For Affirmative Action To Ensure Equal Employment Opportunity, Executive Order 11246" and "Standard Federal Equal Employment Opportunity, Executive Order 11246" or other affirmative action required for equal opportunity under the provisions of this contract. The Contractor will include this provision in all subcontracts.

W. Compliance with Child Support Orders.

The Contractor in performing under this contract will comply with the Chicago Municipal Code Section 2-92-415 Compliance With Child Support Orders. The term Contractor, for the purpose of compliance with this Section, includes any "Substantial Owner". A "Substantial Owner" means any person who, directly or indirectly, owns or holds a 10% or more interest in the Contracting entity. This may include individuals disclosed in the Part One (Disclosure of Ownership Interests), and individuals disclosed in an Economic Disclosure Statement filed by an "Entity holding an interest in the Applicant".

X. Veterans Preference.

1. The Contractor will insure that the following provision is inserted in all contracts entered into with any Contractors and labor organizations which furnish skilled, unskilled and craft union skilled labor, or which may provide any material, labor, or services in connection with this Contract.
2. The contractor will comply with the provisions of 330 ILCS 55/0.01 et. seq. provisions of Ill. Rev. Stat., Ch. 126 2, Par. 23 which requires that a preference be given to veterans in the employment and appointment to fill positions in the construction, addition, or alteration of all public works. In the employment of labor (except executive, administrative and supervisory positions) preference will be given to veterans of the Vietnam era and disabled veterans; however, this preference may be given only where the individuals are available and qualified to perform the Work to which the employment relates.
3. "In the employment of labor (except in executive, administrative, and supervisory positions), preference must be given to Vietnam era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns owned and controlled by disabled veterans as defined in Title 49 United States Code, Section 47112. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates."

Y. Employment of Illinois Laborers on Airport Projects.

Contractor will use only Illinois Laborers in the performance of this Contract, to the extent (i) required by the Employment of Illinois Laborers on Public Works Projects Act 30 ILCS 570/0.01 et. seq., as amended from time to time and; (ii) otherwise permitted by law.

Z. Steel Products.

1. This Contract will be subject to all provisions of the "Steel Products Procurement Act", 30 ILCS 565/1 et seq., as it may be amended from time to time. Steel Products issued or supplied in the performance of this Contract or any subcontract thereto will be manufactured or produced in the United States.
2. For purposes of this Section "United States" means the United States and any place subject to the jurisdiction thereof and "Steel Products" means products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated, or otherwise similarly processed or processed by a combination of two or more such operations, from Steel made in the United States by the open hearth, basic oxygen, electric furnace, Bessemer or other steel making processes. Knowing violation of this Section may result in the filing and prosecution of a complaint by the Attorney General of the State of Illinois and will subject violators to a fine of the greater of \$5,000 or the payment price received as a result of such violation.

AA. Licensing of General Contractor's Ordinance.

1. The Contractor must comply with all requirements of Chapter 4-36, Licensing of General Contractors, of the Chicago Municipal Code.

BB. Federal Ineligible Contractors.

1. Contractor warrants and represents that neither Contractor nor any Affiliate of Contractor, as defined below, appears on the Specially Designated Nationals List, the Denied Persons List, the Unverified List, the Entity List, or the Debarred List as maintained by the Office of Foreign Assets Control of the U.S. Department of Treasury or by the Bureau of Industry and Security of the U.S. Department of Commerce, or their successors, or on any other list of persons or entities with which the City may not do business under any applicable law, rule, regulation, order of judgment.

CC. Prohibition on Certain Contributions (Mayoral Executive Order No. 2011-4).

1. No Contractor or any person or entity who directly or indirectly has an ownership or beneficial interest in Contractor of more than 7.5 percent ("Owners"), spouses and domestic partners of such Owners, Contractor's Subcontractors, any person or entity who directly or indirectly has an ownership or beneficial interest in any Subcontractor of more than 7.5 percent ("Sub-owners") and spouses and domestic partners of such Sub-owners (Contractor and all the other preceding classes of persons and entities are together, the Identified Parties"), shall make a contribution of any amount to the Mayor of the City of Chicago (the "Mayor") or to his political fund-raising committee during (i) the bid or other solicitation process for this Contract or Other Contract, including while this Contract or Other Contract is executory, (ii) the term or this Contract or any Other Contract between City and Contractor, and/or (iii) any period in which an extension of this Contract or Other Contract with the City is being sought or negotiated.
2. Contractor represents and warrants that since the date of public advertisement of the specification, request for qualifications, request for proposals or request for information (or any combination of those requests) or, if not competitively procured, from the date the City approached the Contractor or the date the Contractor approached the City, as applicable, regarding the formulation of this Contract, no Identified Parties have made a contribution of any amount to the Mayor or to his political fund-raising committee.
3. Contractor shall not: (a) coerce, compel or intimidate its employees to make a contribution of any amount to the Mayor or to the Mayor's political fund-raising committee; (b) reimburse its employees for a contribution of any amount made to the Mayor or to the Mayor's political fund-raising committee; or (c) bundle or solicit others to bundle contributions to the Mayor or to his political fund-raising committee.
4. The Identified Parties must not engage in any conduct whatsoever designed to intentionally violate this provision or Mayoral Executive Order No. 2011-4 or to entice, direct or solicit others to intentionally violate this provision or Mayoral Executive Order No. 2011-4.
5. Violation of, non-compliance with, misrepresentation with respect to, or breach of any covenant or warranty under this provision or violation of Mayoral Executive Order No. 2011-4 constitutes a breach and default under this Contract, and under any Other Contract for which no opportunity to cure will be granted. Such breach and default entitles the City to all remedies (including without limitation termination for default) under this Contract, under Other Contract, at law and in equity. This provision amends any Other Contract and supersedes any inconsistent provision contained therein.
6. If Contractor violates this provision or Mayoral Executive Order No. 2011-4 prior to award of the Contract resulting from this specification, the Chief Procurement Officer may reject Contractor's bid.
7. For purposes of this provision:

"Other Contract" means any agreement entered into between the Contractor and the City that is (i) formed under the authority of MCC Ch. 2-92; (ii) for the purchase, sale or lease of real or personal property; or (iii) for materials, supplies, equipment or services which are approved and/or authorized by the City Council.

"Contribution" means a "political contribution" as defined in MCC Ch. 2-156, as amended.

"Political fundraising committee" means a "political fundraising committee" as defined in MCC Ch. 2-156, as amended.

DD. Business Enterprises Owned or Operated by People with Disabilities.

The City encourages Contractors to use Subcontractors that are firms owned or operated by individuals with disabilities, as defined by Section 2-92-586 of the Municipal Code of the City of

Chicago, where not otherwise prohibited by federal or state law.

EE. False Statements

False statements made in connection with this Contract, including statements in, omissions from and failures to timely update the EDS, as well as in any other affidavits, statements or contract documents constitute a material breach of the Contract. Any such misrepresentation renders the Agreement voidable at the option of the City, notwithstanding any prior review or acceptance by the City of any materials containing such misrepresentation. In addition, the City may debar Contractor, assert any contract claims or seek other civil or criminal remedies as a result of a misrepresentation (including costs of replacing a terminated Contractor pursuant to Chicago Municipal Ordinance 1-21-010).

FF. Ineligibility to do Business with the City

Failure by the Contractor any controlling person (as defined in Section 1-23-010 of the Municipal Code of Chicago) thereof to maintain eligibility to do business with the City of Chicago as required by Section 1-23-30 of the Municipal Code of Chicago shall be grounds for termination of this Contract.

GG. Disclosure of Ownership Interest in Entities

The Contractor will keep disclosure of ownership interests and other information current as required by Section 2-154-020 of the Municipal Code of Chicago.

HH. City Hiring Plan Provisions

1. The City is subject to the June 16, 2014 "City of Chicago Hiring Plan" (the "2014 City Hiring Plan") entered in *Shakman v. Democratic Organization of Cook County*, Case No 69 C 2145 (United States District Court for the Northern District of Illinois). Among other things, the 2014 City Hiring Plan prohibits the City from hiring persons as governmental employees in non-exempt positions on the basis of political reasons or factors.
2. Contractor is aware that City policy prohibits City employees from directing any individual to apply for a position with Contractor, either as an employee or as a subcontractor, and from directing Contractor to hire an individual as an employee or as a subcontractor. Accordingly, Contractor must follow its own hiring and contracting procedures, without being influenced by City employees. Any and all personnel provided by Contractor under this Contract are employees or subcontractors of Contractor, not employees of the City of Chicago. This Contract is not intended to and does not constitute, create, give rise to, or otherwise recognize an employer-employee relationship of any kind between the City and any personnel provided by Contractor.
3. Contractor will not condition, base, or knowingly prejudice or affect any term or aspect of the employment of any personnel provided under this Contract, or offer employment to any individual to provide services under this Contract, based upon or because of any political reason or factor, including, without limitation, any individual's political affiliation, membership in a political organization or party, political support or activity, political financial contributions, promises of such political support, activity or financial contributions, or such individual's political sponsorship or recommendation. For purposes of this Contract, a political organization or party is an identifiable group or entity that has as its primary purpose the support of or opposition to candidates for elected public office. Individual political activities are the activities of individual persons in support of or in opposition to political organizations or parties or candidates for elected public office.
4. In the event of any communication to Contractor by a City employee or City official in violation of paragraph 2 above, or advocating a violation of paragraph 3 above, Contractor will, as soon as is reasonably practicable, report such communication to the Hiring Oversight Section of the City's Office of the Inspector General, and also to the head of the relevant City Department utilizing services provided under this Contract.

Contractor will also cooperate with any inquiries by IGO Hiring Oversight or the Shakman Monitor's Office related to the Contract.

II. Project Labor Agreement

Pursuant to an Ordinance passed by City Council, effective as of February 22, 2011, the City has entered into the Multi-Project Labor Agreement ("PLA"), which is hereby referenced and included in the Contract Documents, with various trades regarding projects as described in the PLA, together with a list of signatory unions. Contractor acknowledges familiarity with the requirements of the PLA and its applicability to any Work under this Agreement, and shall comply in all respects with the PLA.

JJ. Clean Diesel Fleet (Section 2-92-595 of the Chicago Municipal Code)

If this Contract is for construction, demolition, restoration, repair, renovation, environmental remediation, or environmental abatement of any building, structure, tunnel, excavation, roadway, bridge, transit station, or parcel of land and the estimated value of this Contract is \$2,000,000 or more:

1. The Contractor must comply with the Clean Diesel Contracting Ordinance, Section 2-92-595 of the Municipal Code of Chicago.
2. The Contractor and any Subcontractor(s) must utilize Ultra Low Sulfur Diesel Fuel (ULSD) for any heavy-duty diesel-powered vehicle, non-road vehicle or non-road equipment used in the performance of the Contract.
3. The Contractor and any Subcontractor(s) must minimize idling of motor vehicles and non-road vehicles used in the performance of the Contract during periods of inactivity, and must comply with the anti-idling requirements imposed by any applicable federal, state, or local law.
4. The Contractor and any Subcontractor(s) may not use any of the following vehicles and equipment in the performance of the contract:
 - a. any heavy-duty diesel vehicle not meeting or exceeding the US EPA's emission standards for heavy-duty diesel vehicles for the 1998 engine model year, unless such vehicle is fitted with a verified diesel emission control retrofit device; or
 - b. any non-road vehicle or non-road equipment not meeting or exceeding the US EPA's Tier 1 Non-Road Diesel Standards, unless such vehicle or equipment is fitted with a verified diesel emission retrofit device.
5. Any heavy-duty diesel vehicles, non-road vehicles, and non-road equipment used in the performance of this Contract must incorporate such engine or retrofit technology so that the Contractor, through such engine or retrofit technology used directly by the Contractor and all subcontractors, shall have a minimum of 3.0 clean fleet score per a reporting period, as calculated by using the methodology described in MCC subsection 2-92-595(c)(5). Contractor may exclude from the calculation of the clean fleet score up to fifty percent of all of the heavy-duty diesel vehicles, non-road vehicles and non-road equipment used in the performance of the Contract during a reporting period that are owned or leased by any firm that the CPO has granted a clean fleet score annual waiver certificate pursuant to MCC subsection 2-92-595 (f). However, pursuant to MCC subsection 2-92-595(b)(6), if this Contract is advertised after January 1, 2020, the minimum clean fleet score is increased to 4.0, and Contractor may exclude from the calculation up to only twenty five percent of vehicles owned or leased by a firm that has received a clean fleet score waiver certificate instead of fifty percent.
6. The City may conduct an audit of the Contractor or inspect any vehicle or equipment used in the performance of the Contract to ensure compliance with the requirements specified above. In the event that Contractor or any Subcontractor fails to utilize ULSD or fails to minimize idling or comply with anti-idling requirements, Contractor will be subject to

liquidated damages of \$5,000 per day for each violation and each day of noncompliance will be a separate violation; provided, however, the damages will not exceed \$50,000 for any one vehicle or piece of equipment, as specified in Section 2-92-595(e) of the Municipal Code of Chicago. Such liquidated damages are imposed not as a penalty but as an estimate of the damages that the City will sustain from delay in completion of the project and inspection and other enforcement costs, as well as the resultant damages to the public health of its citizens, which damages by their nature are not capable of precise proof. The City is authorized to withhold and deduct from monies otherwise payable to the contractor the amount of liquidated damages due to the City.

Contractor understands that pursuant to Section 2-92-595(e)(6) of the Municipal Code of Chicago, any person knowingly making a false statement of material fact to any City department with respect to compliance with the contract provisions specified in Section 2-92-595(e) of the Municipal Code of Chicago may be fined not less than \$1,000 or more than \$5,000 for each statement.

KK. Duty to Report Corrupt or Unlawful Activity

Pursuant to MCC 2-156-018, it is the duty of the Contractor to report to the Inspector General, directly and without undue delay, any and all information concerning conduct which it knows to involve corrupt activity. "Corrupt activity" means any conduct set forth in Subparagraph (a)(1), (2), or (3) of Section 1-23-020 of the MCC. Knowing failure to make such a report will be an event of default under this Contract. Reports may be made to the Inspector General's toll free hotline, 866-IG-TIPLINE (866-448-4754).

LL. Equal Pay Act

The Contractor will comply with all applicable provisions of the Equal Pay Act of 1963, 29 U.S.C. 206(d) and the Illinois Equal Pay Act of 2003, 820 ILCS 112/1, et. seq., as amended, and all applicable related rules and regulations including but not limited to those set forth in 29 CFR Part 1620 and 56 Ill. Adm. Code Part 320.

MM. Electronic Mail Communication

Electronic mail communication between Contractor and City employees must relate only to business matters between Contractor and the City.

NN. EDS Update Obligation

Contractor is required to notify the City and update the EDS whenever there is a change in circumstances that makes any certification or information provided in an EDS inaccurate, obsolete or misleading. Failure to notify the City and update the EDS is grounds for declaring the Contractor in default, termination of the Contract for default, and declaring that the Contractor is ineligible for future contracts.

OO. Wheel Tax (City Sticker)

Contractor must pay all Wheel Tax required by Chapter 3-56 of the MCC, as amended from time to time. Contractor should take particular notice of MCC 3-56-020 and MCC 3-56-125 which relate to payment of the tax for vehicles that are used on City streets or on City property by City residents. For the purposes of Chapter 3-56, any business that owns, leases or otherwise controls a place of business within the City wherein motor vehicles or semi-trailers are stored, repaired, serviced, or loaded or unloaded in connection with the business is also considered to be a City resident.

PP. Safety Enhancing Vehicle Equipment Contracting (Section 2-92-597 of the Chicago Municipal Code)

1. Definitions

For purposes of this section, the following definitions shall apply:

"Commissioner of 2FM" means the City's Commissioner of Fleet and Facility Management.

"Conventional cab" means a large vehicle configuration in which the driver is behind the front axle and the engine is in front of the axle under a discrete hood.

"Convex mirrors" means wide-angle mirrors that enable the operator of a large vehicle to see along the left and right sides of the vehicle by allowing a view of all points on an imaginary horizontal line which is: (i) three feet above the road; and (ii) one foot outside the plane defined by the outer face of the wheels.

"Crossover mirror" means a fender-mounted or hood-mounted mirror that enables the operator of a large vehicle with a conventional cab to see: (i) any person or object at least three feet tall passing one foot in front of the vehicle; and (ii) the area from the front bumper to where direct vision is possible.

"Large vehicle" means any motor vehicle with a gross vehicle weight rating exceeding 10,000 pounds, except an ambulance, fire apparatus, low-speed vehicle with maximum speed under 15 mph, or agricultural tractor.

"Lateral protective device" or "vehicle side guard" means an apparatus installed between the front and rear wheels of a large vehicle that is designed to prevent road users from falling underneath the vehicle.

"Subcontractor" means any person that enters into any tier subcontract to perform work on this Contract.

"Volpe side guard standard" means the United States Department of Transportation's Volpe side guard standard published and referred to as US DOT Standard DOT-VNTSC-OSTR-16-05, as amended; or a functionally equivalent national vehicle side guard standard, as determined by the Commissioner of 2FM.

2. Safety Enhancing Requirements

Contractor and any Subcontractor must comply with MCC 2-92-597. Contractor and any Subcontractor must retrofit large vehicles used in the performance of the contract, in accordance with the Phase-In Period provided below, with:

- a. Lateral protective devices. This requirement shall be considered satisfied if: (i) the vehicle is equipped with vehicle side guards in accordance with the requirements of the Volpe side guard standard; or (ii) the vehicle is so designed or equipped at the side that, by virtue of its shape and characteristics, its component parts can be regarded as replacing or functioning as vehicle side guards in accordance with the Volpe side guard standard; or (iii) the vehicle cannot be retrofitted with lateral protective devices as attested by the contractor or the subcontractor in a statement accompanied by certification from two manufacturers of such devices.
- b. Left and right side convex mirrors; and
- c. At least one crossover mirror on the passenger side.

3. Phase-In Period

Except when a Contractor or a Subcontractor is granted a waiver pursuant to MCC 2-92-597(g), the Safety Enhancing Requirements set forth above shall apply to:

- a. one-fourth of a Contractor's or a Subcontractor's large vehicles used in the performance of the Contract on or after July 1, 2018 but before July 1, 2019;
- b. one-half of a Contractor's or a Subcontractor's large vehicles used in the performance of the Contract on or after July 1, 2019 but before July 1, 2020;
- c. three-fourths of a Contractor's or a Subcontractor's large vehicles used in the performance of the Contract on or after July 1, 2020 but before July 1, 2021;
- d. all of a Contractor's or a Subcontractor's large vehicles used in the performance of the Contract on or after July 1, 2021.

4. Compliance

Contractor shall submit a written compliance plan to the Commissioner of 2FM with respect to compliance with MCC 2-92-597 within 14 days following the notice to proceed or the placing of the first order under the contract, as applicable.

Every twelve-month period following the notice to proceed or the placing of the first order under the contract, as applicable, or when requested by the Commissioner of 2FM, the contractor must submit to the Commissioner of 2FM, in a form and manner provided by the CPO, a report that includes the following:

- a. the number of large vehicles used in the performance of the Contract by the Contractor and any Subcontractor;
- b. the number of large vehicles used in the performance of the Contract by the Contractor and any Subcontractor that are retrofitted with safety enhancing equipment as required as specified above and MCC 2-92-597(b);
- c. one or more photographs of each large vehicle used in the performance of the Contract by the Contractor and any Subcontractor that is retrofitted with required safety enhancing equipment as specified above and set forth in MCC 2-92-597(b). The photographs must show the large vehicle's license plate number with the safety enhancing equipment fitted on the vehicle; and
- d. a certification that the Contractor and any Subcontractor in the contract have met the requirements MCC 2-92-597 and the terms of the contract specified pursuant to that section.

5. Time Extension and Annual Waiver Requests

Upon a written request, accompanied by a compliance plan, of a Contractor or Subcontractor of a Contract entered on or before December 31, 2018, the CPO, in consultation with the Department, may grant a time extension of not more than six months for compliance with the requirements of MCC 2-92-597 with regard to the Contract.

Contractor and any Subcontractors may apply to the CPO for an annual waiver from the requirements of MCC 2-92-597. See MCC 2-92-597(g).

6. Costs

All costs that the contractor or any subcontractor may incur to comply with contract requirements imposed pursuant to this section are incidental to the overall contract. No additional time or monies shall be granted to the contractor for compliance with these requirements.

7. Enforcement

The CPO or Commissioner is authorized to inspect or to have inspected any large vehicle used in the performance of this Contract in order to ensure compliance with Safety Enhancing Equipment requirements and MCC 2-92-597.

In addition to other remedies provided by law or specified in the Contract, any person who knowingly makes a false statement of material fact to any city agency with respect to compliance with any contract requirements specified pursuant to MCC 2-92-597 or rules promulgated thereunder shall be fined not less than \$1,000.00 nor more than \$5,000.00 for each such false statement. For purposes of MCC 2-92-597, a person knowingly makes a false statement of material fact when such person makes a false statement of material fact as provided in subsection (d) of Section 1-21-010.

END OF XIX

XX. MISCELLANEOUS

A. General Provisions.

1. **Counterparts:** This Contract is comprised of several identical counterparts, each to be fully executed by the parties and each to be deemed an original having identical legal effect.
2. **Amendments:** No changes, amendments, modifications, cancellation, or discharge of this Contract, or any part thereof, will be valid unless in writing and signed by the parties hereto, or their respective successors and assigns, in accordance with all applicable laws.
3. **Governing Law and Jurisdiction:** This Contract will be governed in accordance with the laws of the State of Illinois, without regard to choice of law principles. The Contractor hereby irrevocably submits, and will cause its Subcontractors to submit, to the original jurisdiction of those State or Federal courts located within the County of Cook, State of Illinois, with regard to any controversy arising out of, relating to, or in any way concerning the execution or performance of this Contract. The Contractor agrees that service of process on the Contractor may be made, at the option of the City, either by registered or certified mail addressed to the applicable office as provided for in this Contract, by registered or certified mail addressed to the office actually maintained by the Contractor, or by personal delivery on any officer, director, or managing or general agent of the Contractor.
4. **Consent to Service of Process:** The Contractor agrees that service of process on the Contractor may be made, at the option of the City, either by registered or certified mail addressed to the applicable office as provided for in this Contract, by registered or certified mail addressed to the office actually maintained by the Contractor, or by personal delivery on any officer, director, or managing or general agent of the Contractor. The Contractor designates and appoints the representative identified on the signature page hereto under the heading "Designation of Agent for Service Process", as its agent in Chicago, Illinois, to receive on its behalf service of all process (which representative will be available to receive such service at all times), such service being hereby acknowledged by such representative to be effective and binding service in every respect. Said agent may be changed only upon the giving of written notice by the Contractor to the City of the name and address of a new Agent for Service of Process who works within the geographical boundaries of the City of Chicago. Nothing herein will affect the right to serve process in any other manner permitted by law or will limit the right of the City to bring proceedings against the Contractor in the courts of any other jurisdiction.
5. **Assigns:** All of the terms and conditions of this Contract are binding upon and inure to the benefit of the parties hereto and their respective legal representatives, successors, transferees, and assigns.
6. **Co-operation by Parties:** The parties hereby agree to act in good faith in the performance of this Contract and to co-operate with each other in the completion of the Work hereunder. The Contractor further agrees to implement such measures as may be necessary to ensure that its staff and its subcontractors will be bound by the provisions of this Contract. The City will be expressly identified as a third party beneficiary in the subcontracts and granted a direct right of enforcement thereunder.
7. **Joint and Several Liability:** In the event that Contractor, or its successors or assigns, if any, is comprised of more than one individual or other legal entity (or a combination thereof), then and in that event, each and every obligation or undertaking herein stated to be fulfilled or performed by Contractor will be the joint and several obligation or undertaking of each such individual or other legal entity.
8. **No Third Party Beneficiaries:** The parties agree that this Contract is solely for the benefit of the parties and nothing herein is intended to create any third party beneficiary rights for subcontractors or other third parties.

B. Notices of Events of Default and Termination Under Article XVIII.

1. Notices of events of default and termination pursuant to Article XVIII will be in writing and may be delivered personally or by placing in the United States mail, first class and certified, return receipt requested, with postage prepaid and addressed as follows:
 - a. If to the City: Commissioner of Aviation, AMF O'Hare, P.O. Box 66142, 10510 W. Zemke Road, Chicago, IL 60666
 - b. With Copies to: The Chief Procurement Officer, 121 North LaSalle Street, City Hall Room 806, Chicago, IL 60602
 - c. If to the Contractor: The address identified on its Bid
 - d. With Copies to: The Surety
2. Notices delivered by mail will be deemed effective three (3) days after mailing in accordance with this section. Notices delivered personally will be deemed effective upon receipt. The addresses stated herein may be revised without need for modification or amendment of this Contract, provided written notification is given in accordance with this section.

C. Authority.

1. Contractor: Execution of this Contract by the Contractor is authorized and signature(s) of each person signing on behalf of the Contractor have been made with complete and full authority to commit the Contractor to all terms and conditions of this Contract, including each and every representation, certification, and warranty contained herein, attached hereto and collectively incorporated by reference herein, or as may be required by the terms and conditions hereof. If other than a sole proprietorship, Contractor must provide satisfactory evidence that the execution of the Contract is authorized in accordance with the business entities rules and procedures.

D. No Waiver of Legal Rights.

1. Neither the acceptance of the City, or any representative of the City, nor any payment for or acceptance of the whole or any part of the Work, nor any extension of time, nor any possession taken by the City, shall operate as a waiver by the City of any portion of the Contract, or of any power herein reserved or any right of the City to damages herein provided. A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.
2. Miscellaneous Provisions: Whenever under this Contract the City by a proper authority waives the Contractor's performance in any respect or waives a requirement or condition to either the City's or the Contractor's performance, the waiver so granted, whether express or implied, shall only apply to the particular instance and will not be deemed a waiver forever or for subsequent instance of the performance, requirement, or condition. No such waiver shall be construed as a modification of this Contract regardless of the number of times the City may have waived the performance, requirement, or condition.
3. False statements made in connection with this Contract, including statements in, omissions from and failures to timely update the Economic Disclosure Statement (EDS), as well as in any other affidavits, statements or contract documents constitute a material breach of the Contract. Any such misrepresentation renders the Contract voidable at the option of the City, notwithstanding any prior review or acceptance by the City of any materials containing such misrepresentation. In addition, the City may debar Contractor, assert any contract claims or seek other civil or criminal remedies as a result of a misrepresentation (including costs of replacing a terminated Contractor pursuant to Chicago Municipal Code 1-21-010).

END OF XX

**CITY OF CHICAGO
DEPARTMENT OF AVIATION
O'HARE INTERNATIONAL AIRPORT**

RECIRCULATION BRIDGE REPLACEMENT

**PART THREE OF THREE
TECHNICAL SPECIFICATIONS**

**SPECIFICATION NO.: 800480
PROJECT NO.: H3073.18-00**



**CITY OF CHICAGO
Rahm Emanuel
Mayor**



**DEPARTMENT OF AVIATION
Jamie L. Rhee
Commissioner**

Issued by:

**DEPARTMENT OF PROCUREMENT SERVICES
Shannon E. Andrews
Chief Procurement Officer**

**FEBRUARY 21, 2019
ISSUED FOR BID**

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MOBILIZATION AND CLOSEOUT DOCUMENTATION

SECTION M-101

PART 1 GENERAL

1.01 MOBILIZATION INCLUDES:

- A. The Work must consist of preparatory work and operations necessary for permits, the movement of personnel, equipment, supplies, and incidentals to the Project site; for the establishment of offices, buildings, and other facilities necessary for work on the Project; for coordination with ComEd and provisions for ComEd secondary service to Contractor Staging/Trailer Area; and for all other administrative work or operations which must be performed, or costs incurred when beginning work on the Project.
- B. The Contractor must submit all documents as described in Part Two, General Conditions of the Specifications prior to the first request for partial payment for Mobilization:
 - 1. Construction Operations Plan - Part 2, Article IV.D.1
 - 2. Sustainability Requirements - Part 2, Article IV.D.2:
 - a. Contractor/Subcontractor Equipment Verification Report
 - b. Local/Regional Materials Estimate
 - c. Recycled Content Estimate
 - d. Sustainable Temporary Construction Materials Pre-Construction Estimate
 - e. Construction Waste Management Plan and C&D Recycling Worksheet
 - 3. Anticipated Workforce Projection Form - Part 2, Article IV.D.3
 - 4. Procedures, Methods, Structures and Equipment - Part 2, Article IV.D.4
 - 5. Subcontractor Agreements - Part 2, Article V.C.1
 - 6. Source of Materials - Part 2, Article VI.E.2.a
 - 7. Key Personnel - Part 2, Article VII.B.1
 - 8. Baseline Schedule - Part 2, Articles VIII.E.2.b and E.4.a
 - 9. Shop Drawings, Product Data and Samples, "Index and Schedule" - Part 2, Article XI.B.4

1.02 CLOSEOUT DOCUMENTATION INCLUDES:

- A. The Work must consist of preparing the closeout documentation per Part 2, Article IX.G. Contractor must submit all documents as described in Part Two, General Conditions of the Specifications prior to the request for payment for Closeout Documentation and includes the items below:
1. All permits – Part 2, Article III.E
 2. Final Punch List Completed – Part 2, Article VIII.D
 3. Record Shop Drawings Received – Part 2, Article XII.C
 4. As-Built Contract Drawings Received – Part 2, Article XII.A
 5. O&M Manuals Received – Part 2, Article XII.B
 6. Contract Warranty Received – Part 2, Article VI.F.1
 7. Manufacturers' Warranty Received – Part 2, Article VI.F.2
 8. Contractor Demobilization Completed – Part 2, Article IX.G.3.a
 9. Final Waivers Received – Part 2, Article IX,G.2.d
 10. Final Sworn Statement and Affidavit – Part 2, Article IX.G.2.b

PART 2 PRODUCTS

2.01 (Not Used)

PART 3 EXECUTION

3.01 (Not Used)

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT:

- A. Measurement will be made for mobilization as a lump sum.
- B. Measurement will be made for closeout documentation for a lump sum amount of \$150,000.

PART 5 BASIS OF PAYMENT

5.01 MOBILIZATION PAYMENT:

- A. The Contractor is to include a cost for this item not to exceed six percent (6%) of the total Contract bid amount.

- B. Partial payment of the lump sum for Mobilization will be made in accordance with the following schedule:
1. The Contractor may draw 75% of the pay item as part of the first request for partial payment.
 2. When 10% or more of the original Contract amount is earned, an additional 15% of the pay item will be paid.
 3. When 90% or more of the revised Contract amount is earned, the remaining balance of the pay item will be paid
- C. Nothing herein must be construed to limit or preclude partial payments for other items as provided for by the Contract.
- D. No separate payment for any and all required utilities will be made, including for coordination with ComEd and providing ComEd secondary service to the Contractor Staging/Trailer Areas. All costs for coordination with required utility companies and associated utility costs will be included in the Mobilization pay item.
- E. All costs associated with preparing the storage and staging areas, including but not limited to clearing and grading of the site, access roads, security fencing, erosion and sediment control, demobilization, cleanup, and restoration of the site to its original condition will be included in the Mobilization pay item.
- F. Payment will be made under the item M101-01 Mobilization (Total price for mobilization must not exceed 6% of the Total Base Bid), per lump sum.

5.02 CLOSEOUT PAYMENT:

- A. Payment will be made under the item M101-02 Closeout Documentation per the lump sum of \$150,000 after all documentation has been accepted by the Commissioner.

| ITEM NO. | DESCRIPTION | UOM |
|------------|--|-------|
| M-101-5.01 | MOBILIZATION (MUST NOT EXCEED 6.00% OF THE TOTAL BASE BID) | L SUM |
| M-101-5.02 | CLOSEOUT DOCUMENTATION | L SUM |

END OF SECTION M-101

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NIGHT CONSTRUCTION

SECTION N-100

PART 1 DESCRIPTION

1.01 GENERAL

- A. This Section will cover all construction work for the bridge reconstruction that is scheduled for Night Time Work as required by the Commissioner and will require a turn-over of the work site to Airport Operations during the day. All work must be begin at 10:30 p.m. and end at 6:00 AM and the work area turned over for the morning traffic entering and exiting the parking garage and traveling thru the circulation upper and lower roadways.

1.02 SUBMITTALS

- A. Lighting Layout Plan for construction lighting.
- B. Work Plan for Night Construction including start and finish times, standby equipment and staging area, and scarilay work limits.

1.03 QUALITY ASSURANCE

- A. Lighting Competent Person: Contractor shall assign one full-time person to verify and document lighting compliance with this specification.
- B. Preinstallation Conference: Conduct a preinstallation conference at the project site.

1.04 ADVANCE NOTICE

- A. The Contractor is required to give a minimum of 48 hours advance notice to Airport Operations prior to performing any night work. Under no circumstance will any work be performed at night without written approval by the Commissioner and/or the Airport Operations Manager.

1.05 CONSTRUCTION LIGHTING

- A. The Contractor is required to install, maintain, and relocate temporary lights to illuminate each work area during the hours of darkness when overlay operations are in progress.
- B. The lighting equipment must be trailer-mounted units, each with 4-1,000 watt metal halide or high pressure sodium lights on a winch-lift telescopic mast. The Contractor will provide sufficient units to have the capacity of producing an average maintained illumination level of 5 horizontal foot candles throughout the working area. The Contractor is required to submit isolux curves or charts showing the pattern of lights. Levels should be calculated and measured in

accordance with the standards of Illumination Engineering Society (IES) current practice. In addition, quality control personnel will be required to verify and document nightly compliance with this requirement.

- C. All excavating machinery, backhoes, paving machines, rollers, distributors, trucks, and other equipment (except haul trucks) must be equipped with sufficient illumination to safely complete the work.
- D. Location of lights shall be changed as directed by the Commissioner to correct problems to the Control Tower caused by the lights.
- E. Contractor will be allowed access to work areas each night subject to the operational requirements of the Airport as determined by the Commissioner. It is the intent that the Contractor will be allowed access to work areas between the hours of 10:30 p.m. and 6:00 a.m. each working night. If permission for such access is delayed due to such operational requirements of the Airport as determined by the Commissioner, the Contractor will be allowed compensation for labor, time, and equipment costs for delay in starting work in excess of one hour past the nominal time for starting night time work. This claim will be in accordance with the General Conditions. Any such claim for delay will not exceed amounts for labor and equipment costs in excess of 4 hours per working night.

PART 2 PRODUCTS – Not Applicable

PART 3 EXECUTION – Not Applicable

PART 4 METHOD OF MEASUREMENT

4.01 Night construction procedures as described herein will not be measured for separate payment. The costs of meeting the requirements of this specification will be included in the Contract price as a whole, and no additional compensation will be allowed.

PART 5 BASIS OF PAYMENT

5.01 Night construction will be considered included in the overall Contract price. No additional payment will be made for this item.

END OF SECTION N-100

QUALITY CONTROL PROGRAM

SECTION Q-100

PART 1 GENERAL

1.01 DESCRIPTION

- A. The Contractor must establish, provide, and maintain an effective Quality Control Program that details the methods and procedures that will be taken to assure that all materials and completed construction for all work items included under this project, as described in the Contract Documents, conform to the contract requirements, whether manufactured by the Contractor or procured from subcontractors or vendors. Although guidelines are established and certain minimum requirements are specified herein and elsewhere in the contract technical specifications, the Contractor must assume full responsibility for accomplishing the stated purpose. This purpose will be included in a mission statement for the program.
- B. The intent of this section is to enable the Contractor to establish a necessary level of control prior to performing work that will:
 - 1. Adequately provide for the production of acceptable quality materials.
 - 2. Provide sufficient information to assure both the Contractor and the Commissioner that the specification requirements must be met.
 - 3. Allow the Contractor as much latitude as possible to develop its own standard of quality control, to coordinate and schedule pre-activity meetings, and to demonstrate competence in each specification section.
- C. The Contractor is to discuss and present, in an oral presentation at the preconstruction conference, its understanding of the quality control requirements. The Quality Control Program will be submitted to the Commissioner at the preconstruction conference. The Contractor must not begin any construction or production of materials to be incorporated into the completed work until the Quality Control Program has been reviewed and accepted by the Commissioner. No partial payment will be made for materials subject to specific quality control requirements until the Quality Control Program has been accepted by the Commissioner.
- D. The requirements for the Contractor's Quality Control Program contained in this section are in addition to and separate from the acceptance testing requirements stated in the technical specifications. Acceptance testing requirements will be as specified in the individual technical specifications.
- E. Paving projects over \$250,000 will have a Quality Control (QC)/Quality Assurance (QA) workshop with the Designer, Contractor, subcontractors, testing laboratories, and Commissioner's representative and the FAA prior to

or at start of construction. The workshop must address QC and QA requirements of the project specifications. The Contractor will coordinate with the Commissioner and the Designer on time and location of the QC/QA workshop.

1.02 DESCRIPTION OF PROGRAM

- A. General Description. This Quality Control Program will ensure conformance to applicable specifications and plans with respect to materials, workmanship, construction, finish, and functional performance. The Quality Control Program will be effective for control of all construction work performed under this Contract and will specifically include full-time surveillance and tests required by the technical specifications, in addition to other requirements of this section and any other activities deemed necessary by the Contractor to establish an effective level of quality control.
- B. Quality Control Program. The Contractor must describe the Quality Control Program in a written document which will be reviewed by the Commissioner prior to the start of any production, construction, or off-site fabrication. The written Quality Control Program will be submitted to the Commissioner for review at the preconstruction conference.

The Quality Control Program will be organized to address, as a minimum, the following items:

- 1. Quality control organization.
 - 2. Project progress schedule.
 - 3. Submittals schedule.
 - 4. Pre-activity meetings schedule.
 - 5. Inspection requirements.
 - 6. Quality control testing plan.
 - 7. Documentation of quality control activities.
 - 8. Requirements for corrective action when quality control and/or acceptance criteria are not met.
- C. The Contractor is encouraged to add any additional elements to the Quality Control Program that it deems necessary to adequately control all production and/or construction processes required by this contract.

1.03 QUALITY CONTROL ORGANIZATION

- A. The Contractor's Quality Control Program must be implemented by the establishment of a separate quality control organization. An organizational chart must be developed to show all quality control personnel and how these

personnel integrate with other management, production, and construction functions and personnel.

- B. The organizational chart must identify all quality control staff by name and function, and must indicate the total staff required to implement all elements of the Quality Control Program, including full-time inspection, testing and full time surveillance for each item of work. Different technicians must be utilized for specific inspection and testing functions for different items of work. If an outside organization or independent testing laboratory is used for implementation of all or part of the Quality Control Program, the personnel assigned must be subject to the qualification requirements of Paragraphs 1.03.D.1 and 1.03.D.2. The organizational chart must indicate which personnel are Contractor employees and which are provided by an outside organization. The Program Administrator will be required to conduct a documented training session, detailing the aspects of the Quality Control Program. All project foremen, superintendents, project managers and QC technicians, whether employed by the Contractor, subcontractor or outside testing organization must attend. The Commissioner will have the opportunity to have his designees attend this training. In addition, the Program Administrator will conduct a pre-activity meeting at least 2 workdays in advance of any activity of work. This meeting must be attended by the Superintendent and Foreman responsible for the work, with notification to the CM Quality Assurance Manager and Resident Engineer. QC and QA Technicians are encouraged to attend.
- C. Payment will not be made for any materials installed without Quality Control inspection by the Contractor. In addition, the Commissioner may withhold, or deny payment for an inspected item, if in the Commissioner's opinion; the Contractor's Quality Control Program is not functioning as required by the project specifications.
- D. Inspection of all materials, construction, plant, and equipment for conformance to the technical specifications, and as required by Paragraph 1.06.
- E. Performance of all quality control tests as required by the technical specifications and Paragraph 1.07.
- F. Performance of density tests for the Commissioner where required by the technical specifications.
 - 1. Certification of technicians at an equivalent level, by a state or nationally recognized organization will be acceptable in lieu of NICET certification.
 - 2. Staffing Levels. The Contractor must provide qualified quality control staff to monitor each work activity. The Commissioner will make the final determination as to the adequacy of quality control staffing levels and personnel. Where material is being produced in a plant for incorporation into the work, separate plant and field technicians will be

provided at each plant and field placement location. The scheduling and coordinating of all inspection and testing must match the type and pace of work activity. The Quality Control Program will state where different technicians will be required for different work elements.

1.04 PROJECT PROGRESS SCHEDULE

- A. The Contractor must submit a coordinated construction schedule for all work activities. The schedule must be prepared as a network diagram in Critical Path Method (CPM), Program Evaluation and Review Technique (PERT), or other format, or as otherwise specified in Part Two of the Specifications, Article VIII, Paragraph D.
- B. The Contractor must maintain a work schedule and provide an update and analysis of the progress schedule on a twice monthly basis, or as otherwise specified in the contract. Submission of the work schedule will not relieve the Contractor of overall responsibility for scheduling, sequencing, and coordinating all work to comply with the requirements of the contract.

1.05 SUBMITTALS SCHEDULE

- A. The Contractor must submit a detailed listing of all submittals (e.g., mix designs, material certifications) and Shop Drawings prior to the start of work required by the technical specifications. The listing can be developed in a spreadsheet format and must include:
 - 1. Specification item number.
 - 2. Item description.
 - 3. Description of submittal.
 - 4. Specification paragraph requiring submittal.
 - 5. Scheduled date of submittal.
 - 6. Submittal approval level.
 - 7. Contractor/subcontractor responsible.
- B. This spreadsheet must be produced and maintained by the Contractor's Project Manager on a bi-weekly basis and will be reviewed by the Program Administrator prior to submission to the Commissioner.

1.06 INSPECTION REQUIREMENTS

- A. Quality control inspection functions included in the Contractor's Quality Control Program will be organized to provide full-time inspections by the Contractor's personnel or by an outside organization provided by the Contractor, as detailed below. All such inspections must be documented by the Contractor as specified in Paragraph 1.08.

- B. Inspections will be performed daily to ensure continuing compliance with contract requirements until completion of the particular feature of work. These will include the following minimum requirements:
1. During plant operation for material production, quality control test results and full time inspections will be utilized to ensure the quality of aggregates and other mix components, and to adjust and control mix proportioning to meet the approved mix design and other requirements of the technical specifications. All equipment utilized in proportioning and mixing will be inspected to ensure its proper operating condition. The Quality Control Program will detail how these and other quality control functions will be accomplished and utilized.
 2. During field operations, quality control test results and full time inspections will be utilized to ensure the quality of all materials and workmanship. All equipment utilized in placing, finishing, and compacting will be inspected and calibrated as necessary to ensure its proper operating condition and to ensure that all such operations are in conformance to the technical specifications and are within the plan dimensions, lines, grades, and tolerances specified. The Program will document how these and other quality control functions will be accomplished and utilized.

1.07 QUALITY CONTROL TESTING PLAN

- A. As a part of the overall Quality Control Program, the Contractor must implement a quality control testing plan, as required by the technical specifications. The testing plan will include the minimum tests and test frequencies required by each technical specification item, as well as any additional quality control tests that the Contractor deems necessary to adequately control production and/or construction processes.
- B. The testing plan can be developed in a spreadsheet fashion and will, as a minimum, include the following:
1. Specification item number (e.g., P-401).
 2. Item description (e.g., Plant Mix Bituminous Pavements).
 3. Test type (e.g., gradation, grade, asphalt content).
 4. Test standard (e.g., ASTM or AASHTO test number, as applicable).
 5. Test frequency (e.g., as required by technical specifications or minimum frequency when requirements are not stated; where no minimum test frequency is specified for aggregate gradations, one gradation test must be run per 5000 tons per aggregate type delivered or a minimum of one test per week, and one modified proctor ASTM D 1557 test must be run at a minimum of double the frequency above, or

when materials substantially change as determined by the Commissioner).

6. Responsibility (e.g., plant technician).
 7. Control requirements (e.g., target, permissible deviations).
- C. The testing plan will contain a statistically-based procedure of random sampling for acquiring test samples in accordance with ASTM D 3665. The Commissioner will be given access to witness all quality control sampling and testing.
- D. All quality control test results must be documented by the Contractor as specified in Paragraph 1.08.

1.08 DOCUMENTATION

- A. The Contractor must maintain current quality control records of all inspections and tests performed under the Quality Control Program. These records must include factual evidence that the required inspections or tests have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, causes for rejection, etc.; proposed remedial action; and corrective actions taken.
- B. These records must cover both conforming and defective or deficient features, and must include a statement that all supplies and materials incorporated in the work are in full compliance with the Contract Documents. Legible copies of these records must be furnished to the Commissioner daily, at a time established by the Commissioner at the pre-construction conference. The records must cover all work placed subsequent to the previously furnished records and must be verified and signed by the Contractor's Program Administrator and the inspector.
- C. Specific Contractor quality control records required for the contract must include, but are not necessarily limited to, the following records:
1. Daily Inspection Reports. Each Contractor quality control technician must maintain a daily log of all inspections performed for both Contractor and subcontractor operations on a form acceptable to the Commissioner. These technician's daily reports must provide factual evidence that continuous quality control inspections have been performed and will, as a minimum, include the following:
 - a. Technical specification item number and description.
 - b. Compliance with approved submittals.
 - c. Proper storage of materials and equipment.
 - d. Proper operation of all equipment.

- e. Adherence to plans and technical specifications.
 - f. Review of quality control tests.
 - g. Safety inspection.
- D. The daily inspection reports must identify inspections conducted, results of inspections, location and nature of defects found, causes for rejection, and remedial or corrective actions taken or proposed.
- E. The daily inspection reports will be signed by the responsible quality control technician and the Program Administrator. The Commissioner will be provided at least one legible original copy of each daily inspection reports, by 10:00 am on the work day following the day of record.
1. Daily Test Reports. The Contractor must be responsible for establishing a system which will record all quality control test results. Daily test reports must document the following information:
 - a. Technical specification item number and description.
 - b. Test designation.
 - c. Location.
 - d. Date and time of test.
 - e. Control requirements.
 - f. Test results.
 - g. Causes for rejection.
 - h. Recommended remedial actions.
 - i. Retests.
 2. Checklists. The Quality Control Program Administrator must develop Checklists for each specification section in the Contract Documents. The Checklist must summarize the major items contained in the technical specifications and include a check box signifying compliance designated "Yes", "No" or "N/A". Each Quality Control Technician must fill out a Checklist for each specification section worked on that day. The form must also include:
 - a. Date.
 - b. Shift.
 - c. Specification Section.

- d. QC Conformance – Yes/No.
 - e. Non-Conformance Report (NCR) Number.
 - f. Contractor.
 - g. Pay Item Number and Description.
 - h. Location.
 - i. Comments.
 - j. Signatures of Technicians and Program Administrator.
- F. Test results from each day's work period must be submitted to the Commissioner prior to the start of the next day's work period. When required by the technical specifications, the Contractor must maintain statistical quality control charts. The daily test reports will be signed by the responsible quality control technician and the Program Administrator.

1.09 CORRECTIVE ACTION REQUIREMENTS

- A. The Quality Control Program will indicate the appropriate action to be taken when a process is deemed, or believed, to be out of control (out of tolerance) and detail what action will be taken to bring the process into control. The requirements for corrective action will include both general requirements for operation of the Quality Control Program as a whole, and for individual items of work contained in the technical specifications.
- B. The Quality Control Program will detail how the results of quality control inspections and tests will be used for determining the need for corrective action and will contain clear sets of rules to gauge when a process is out of control and the type of correction to be taken to regain process control.
- C. When applicable or required by the technical specifications, the Contractor must establish and utilize statistical quality control charts for individual quality control tests. The requirements for corrective action will be linked to the control charts.

1.10 SURVEILLANCE BY THE COMMISSIONER

- A. All items of material and equipment will be subject to surveillance by the Commissioner at the point of production, manufacture or shipment to determine if the Contractor, producer, manufacturer or shipper maintains an adequate quality control system in conformance with the requirements detailed herein and the applicable technical specifications and plans. In addition, all items of materials, equipment and work in place will be subject to surveillance by the Commissioner at the site for the same purpose.

- B. Surveillance by the Commissioner does not relieve the Contractor of performing quality control inspections of either on-site or off-site Contractor's or subcontractor's work.
- C. Any testing performed by the Commissioner and deemed by the Contractor to be improperly performed will be noted on the Daily Inspection Report. In addition, a written document by the Program Administrator will be submitted indicating the deviation noted. Testing procedures will be considered accurate and correct unless this procedure is followed. The Contractor must not seek additional compensation for any testing irregularities not reported.
- D. Any testing performed by the Contractor and deemed by the Contractor to be improperly performed or not meeting the requirements of the project specifications must be noted by the Contractor on their daily inspection reports.
- E. No videotaping or recording of QA or QC personnel will be permitted unless written permission is given by both parties.

1.11 NONCOMPLIANCE

- A. The Commissioner will notify the Contractor of any noncompliance with any of the foregoing requirements. The Contractor must, after receipt of such notice, immediately take corrective action. Any notice, when delivered by the Commissioner or its authorized representative to the Contractor or its authorized representative at the site of the work, must be considered sufficient notice.
- B. In cases where quality control activities do not comply with either the Contractor's Quality Control Program or the contract provisions, or where the Contractor fails to properly operate and maintain an effective Quality Control Program, as determined by the Commissioner, the Commissioner may:
 1. Order the Contractor in writing to replace ineffective or unqualified quality control personnel or subcontractors within 24 hours after receipt of such order.
 2. Order the Contractor to stop operations until appropriate corrective actions are taken.
 3. Withhold progress payments in the event of Contractor failure to take corrective actions within the specified time.

PART 2 PRODUCTS

2.01 NOT APPLICABLE

PART 3 EXECUTION

3.01 NOT APPLICABLE

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Contractor quality control program will not be measured for payment and will be considered included in the total contract price.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. The preparation of a Quality Control Program and its implementation, including any corrective measures that may be required to be carried out by the Contractor to bring items of work into compliance with the requirements of the Quality Control Program and the technical specifications will not be paid for separately but will be included in the total Contract price.

END OF SECTION Q-100

PROJECT REQUIREMENTS

SECTION 01010

PART 1 DESCRIPTION

1.01 SCOPE OF WORK

Work under this Contract consists of furnishing all labor, materials, tools, equipment, transportation and service for the reconstruction improvements of the Recirculation Bridge (SN 016-6595) spanning over the I-190 roadway entrance to the elevated parking structure (EPS), Hilton parking and surface lots B and C. The bridge reconstruction includes a proposed superstructure consisting of a cast in place deck on continuous steel wide flange beams supported by original closed abutments and two proposed multi-column piers at the same location as the existing piers. Other associated work consist of grading, drainage, pavement markings, electrical, demolition, and landscaping improvements, as shown on the Plans and for the Work shown under all Sections of the Technical Specifications subject to the requirements of the Contract Documents, including all appurtenant Work and accessories, to the complete satisfaction, approval and acceptance by the Commissioner. The Work is to be performed under a unit price basis Contract.

1.02 COMMISSIONER'S REPRESENTATIVE

- A. The Commissioner's representative on this Project is a resident engineer assigned to the Project. All contacts, inquiries, correspondence, and all submittals of any type, including but not limited to schedules, shop drawings, project data sheets and samples, must be sent exclusively to the Resident Engineer unless otherwise directed by the Resident Engineer. The only exceptions are for notices that are required in the General Conditions - Part Two of the Contract, which are to be sent to the Purchasing Agent with copies of all such notices sent to the Resident Engineer.

1.03 ARCHITECT/ENGINEER

- A. The Engineer on this Project is A. Epstein and Sons, Inc. The Contractor must not have any direct contact with the Engineer, regarding this Project before or after Contract award. All inquiries regarding the Contract Documents must be made to the Resident Engineer only.

1.04 DIRECTOR/COMMISSIONER

- A. Where the Contract Documents refer to Commissioner or Director, it will be understood to be interchangeable and mean the Commissioner of the Chicago Department of Aviation (CDA) or their designated representative.

1.05 USE AND ADOPTION OF IDOT SSRBC

- A. Where the Illinois Department of Transportation “Standard Specifications for Road and Bridge Construction” (IDOT SSRBC) is adopted or referenced in the CDA technical specifications and standards, the following interpretations and translations will apply:
 - 1. Where the SSRBC refer to “Engineer”, it will be understood to mean “Commissioner”.
 - 2. Where the SSRBC refer to “Engineer” for required tests and inspections, it will be understood to mean “Contractor”.
 - 3. The Contractor will perform the Quality Control (QC) tests and inspections, the Commissioner will perform the Quality Assurance (QA) as specified in the SSRBC.
 - 4. Unless otherwise indicated in the CDA specification, the SSRBC method of measurement and basis of payment will not apply.
 - 5. The SSRBC must be the current (or latest revision).
- B. Reference use of the SSRBC will include the current IDOT *Supplemental Specifications* and *Recurring Special Provisions* and *Policy Memorandums*.
- C. The above interpretations and provisions will apply and govern all specifications and standards where IDOT SSRBC is adopted or referenced, regardless of whether the individual specification fully defined them or not.

1.06 TYPICAL SUBGRADE PREPARATION FOR MISCELLANEOUS STRUCTURES

- A. In addition to the requirements shown on the Drawings, the Contractor must verify the required minimum allowable bearing on the subgrade beneath miscellaneous structures including storm and sanitary sewer manholes, catch basins, junction chambers, valve basins, and electrical manholes and handholes and other structures as directed by the Commissioner.
- B. Contractor QC to verify bearing to 3 feet minimum or to depth as directed by the Commissioner.
- C. The cost of verifying the required bearing will be considered included and incidental to the price of the structure.

1.07 SCHEDULED WORK HOURS

- A. For other restrictions that may affect scheduling, refer to the “Standard Notes on General Requirements”.

1.08 PERMIT REQUIREMENTS

- A. In addition to the General Conditions (Part 2), Article III – Property, Item E – Permits and Licenses, the following permits are required to be obtained by the

Contractor:

- a. City of Chicago Department of Water Management (CDWM) sanitary and storm sewer installation permits;
- b. Compliance with the National Pollutant Discharge Elimination System (NPDES) ILR10 permitting program by providing Contractor/Subcontractor signature of the IEPA ILR10 Certification statement in each project's Storm Water Pollution Prevention Plan (SWPPP)
- c. FAA 7460-1 Notice of Proposed Construction or Alteration;
- d. Illinois Department of Transportation (IDOT) Highway permits;

1.09 MATERIAL STOCKPILE (FOR CONTRACTOR'S USE) AND EQUIPMENT STORAGE

- A. Material stockpiled for the Contractor's use must only be in locations designated as the construction staging areas shown on the Plans or directed by the Commissioner.
- B. The storage of equipment, when not in use, must be located in areas and in such a manner which must not interfere with normal operations of the Airport. Locations selected for collection of debris and/or storage of equipment and material must be approved by the Commissioner.

1.10 SOIL BORINGS

- A. Where applicable, subsurface soil investigations were performed as part of this Project and are included in the Plans. Data is for general information for the Contractor only. The Commissioner will not assume responsibility for variations of subsoil conditions. Additional site investigations may be made by a testing laboratory employed by the Contractor subject to approval of the Commissioner.

1.11 BENCH MARKS

- A. The Contractor must use established bench marks and other reference points. The Contractor must replace same if they are destroyed or disturbed in any manner, due to Contractor operations.

1.12 CLEANING

- A. Maintain all work areas free from all dirt, dust, and debris at all times

1.13 UNDERGROUND CONSTRUCTION NOTIFICATION

- A. The O'Hare International Airport Underground Construction Notification form must be completely executed a minimum of twenty-one (21) calendar days prior to the commencement of any excavation and/or utility work. The Contractor cannot perform any excavation or utility work without receiving a fully executed O'Hare International Airport Underground Construction Notification form.

Contractor must include in the Baseline, Monthly Update and Two-Week Look Ahead Schedules a predecessor milestone and task to represent the submittal and execution of the Underground Construction Notification form for each activity associated with excavation and utility work. The milestone denotes the submittal of the form to the weekly Short Term Operational Phasing Meeting (STOP) meeting which is held every Monday. The task denotes the twenty-one (21) calendar day form approval period.

1.14 UNDERGROUND CONCRETE, PIPING AND ELECTRICAL WORK

The work to be performed under this contract includes numerous installations with associated underground utilities that cannot be determined until the time of construction. It is possible that As-Built Documentation presently available may not indicate all utility installation or modifications made, work performed, deterioration, or damage.

PART 2 Not Used

PART 3 Not Used

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENTS

- A. Allowance for workforce development. An allowance amount has been established to compensate the Contractor for employee transportation as directed by the Commissioner.
- B. Allowance for Unforeseen Utility Investigation and Conflicts: An allowance amount has been established to compensate the Contractor for the relocation and restoration of existing utilities in completion of the project improvements, as directed by the Commissioner and not otherwise shown.

Depending on the unforeseen conditions within the areas of the project which were inaccessible for the purpose of verifying existing conditions during the design phase, the Contractor may be required to undertake construction work not presently reflected in the Contract Documents. This work may include, but is not limited to, removal, relocation, or replacement of existing concrete, piping, and electrical work as authorized by the Commissioner. This work shall be as specified in the contract specification sections or as directed by the Commissioner.

- C. Allowance for Operational Impacts (Including Landside Operations/Airline/Tenant): An allowance amount has been established for the contractor to provide additional measures that may be required for landside operations, operation of the parking garage entrance and exit, and tenants. The additional operational measures may include, but not limited to: additional guide

signs, additional radar speed trailers, additional arrow boards, and/or additional DMS signs, or other items as directed by the Commissioner.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Allowance for Workforce Development. The Contractor must receive written notice from the Commissioner to proceed with the Work. The Work will be paid for as shown in General conditions, Article X, Changes in Work, 3. Time and Material Basis.
- B. Allowance for Unforeseen Utility Investigation and Conflicts. The Contractor must receive written notice from the Commissioner to proceed with the Work. The Work will be paid for as shown in General conditions, Article X, Changes in Work, 3. Time and Material Basis.
- C. Allowance for Operational Impacts (Including Landside Operations/Airline/Tenant): The Contractor must receive written notice from the Commissioner to proceed with the Work. The Work will be paid for as shown in General conditions, Article X, Changes in Work, 3. Time and Material Basis.
- D. Payment will be made under:

| ITEM NO. | DESCRIPTION | UOM |
|------------|--|-----|
| 01010-5.01 | ALLOWANCE FOR WORKFORCE DEVELOPMENT | AL |
| 01010-5.02 | ALLOWANCE FOR UNFORSEEN UTILITY INVESTIGATION AND CONFLICTS | AL |
| 01010-5.03 | ALLOWANCE FOR OPERATION IMPACTS (INCLUDING LANDSIDE OPERATIONS/AIRLINE/TENANT) | AL |

END OF SECTION 01010

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AIR QUALITY – EQUIPMENT EMISSIONS

SECTION 01111

PART 1 GENERAL

1.01 SUMMARY

- A. The diesel emissions of vehicles and equipment used for work pertaining to this Contract shall be in accordance with Section 2-92-595 of the Chicago Municipal Code (“Code”) with exceptions as noted in this Specification Section.
- B. This Section includes use and tracking requirements and procedures for compliance with certain sustainable design guidelines based on the Chicago Department of Aviation Sustainable Airport Manual (SAM), current version. Reference can be found at www.airportsgoinggreen.org.
- C. This Section includes tracking requirements and forms necessary for compliance with this Specification and in accordance with the requirements of Credit 7.1 of the Design & Construction Chapter of the SAM.

1.02 RELATED DOCUMENTS

- A. Section 2-92-595 “Clean Diesel Contracting” of the Chicago Municipal Code (attached at the end of this specification section)
- B. Additional information can also be found on the City’s website at <http://www.cityofchicago.org/city/en/progs/env/clean-diesel.html> including federal and state grant and rebate programs to help defray costs to repower or retrofit diesel equipment.

1.03 PERFORMANCE REQUIREMENTS

- A. The Contractor will adhere to Section 2-92-595 of the City of Chicago Municipal Code with exceptions as noted in this Specification Section.

1.04 SUBMITTALS

- A. In addition to submittal requirement pursuant to the Section 2-92-595 of the City of Chicago Municipal Code, the Contractor must transmit the submittals described below to the Commissioner/Construction Manager and to the following email address: samdocs@cityofchicago.org.
- B. The Contractor shall submit documentation pursuant to 2-92-595 of the Code with the following additions:
 - 1. The Contractor shall submit a Diesel Emissions Compliance Plan (see 1.04C) prior to the Contractor’s initial Application for Payment for Mobilization.

2. The City of Chicago Diesel Emissions Compliance Form (attached at the end of this Specification and available electronically at www.airportgoinggreen.org) shall be submitted monthly with the Contractor's Application for Payment.
 3. The Contractor shall submit a final City of Chicago Diesel Emissions Compliance Form with the Contractor's Application for Reduction of Retainage from 5% to 3%.
- C. Diesel Emissions Compliance Plan: The Plan shall be developed by the Contractor and shall be submitted to the Commissioner for review with the Contractor's Application for Payment for Mobilization. The Plan shall include the following sections, at a minimum:
1. General: Provide an overall strategy for complying with the requirements of this specification with the Project.
 2. Contractor Identification: List names, addresses, and telephone numbers of the contractor and all subcontractors operating equipment listed in the report. Identify any contractors or subcontractors that have a clean fleet score annual waiver as defined in Section 2-92-595 (a)(4).
 3. Equipment Identification: Indicate anticipated types and quantities of equipment, applicable to this specification, using the Diesel Emission Compliance Form to calculate the pre-construction estimate of the clean fleet score for the Project.
- D. Diesel Emissions Compliance Submittal Transmittal: When submitting the documentation to the Commissioner as required in Paragraphs 1.04B and 1.04C, the Contractor must complete the Submittal Transmittal Cover Sheet attached at the end of this Specification section and attach this with the appropriate submittal.

1.05 QUALITY ASSURANCE

- A. Contractor Qualifications: Diesel emissions reporting as it pertains to this specification must be performed only by a qualified Contractor. The term qualified means experienced in performing the Work required by this Section. The qualified Contractor must have experience on Projects similar in size and scope to this Project. The Contractor will submit evidence of such qualifications (e.g. Project list, timeframe, diesel equipment emission compliance reports) upon request by the Commissioner.
- B. Regulatory Requirements: In addition to City Ordinances regarding diesel emission requirements described herein, Contractor will comply with emission requirements of authorities (e.g. state, local, or federal) having jurisdiction.

1.06 SPECIAL REQUIREMENTS

- A. (Not Used)

PART 2 PRODUCTS

2.01 FUEL USE REQUIREMENTS

- A. The fuel use requirements apply to all off-road vehicles and equipment utilized by Contractors, Subcontractors and Suppliers.
- B. The fuel use requirements apply to all on-road vehicles and equipment utilized by Contractors, Subcontractors and Suppliers.
- C. The Contractor must utilize Ultra Low Sulfur Diesel (ULSD) for all diesel-powered vehicles and equipment (both mobile and stationary) with engine horsepower ratings of 50 hp or more that are utilized on the Project site. The ULSD must conform to the American Society of Testing and Materials (ASTM) D975 with the following additional specifications:
 - 1. ASTM D5453 15 ppm Sulfur maximum
 - 2. ASTM D6078 Lubricity (SLBOCLE) 3100g minimum
 - 3. ASTM D613 Cetane 45 minimum

2.02 EQUIPMENT TECHNOLOGY REQUIREMENTS

- A. The equipment technology requirements apply to all off-road vehicles and equipment utilized by Contractors, Subcontractors and Suppliers.
- B. These requirements do not apply to on-road vehicles and equipment, however Contractors, Subcontractors and Suppliers that transport materials regularly to and from the Project site are encouraged to follow these requirements to the best of their ability.
- C. Requirements:
 - 1. All off-road diesel-powered vehicles and equipment (both mobile and stationary), as applicable, with engine horsepower ratings of 50 hp or more, must install and or retrofit with emissions control devices that will reduce emissions prior to utilization of said equipment on the Project. The retrofit emission control devices must consist of diesel oxidation catalysts, diesel particulate filters or similar retrofit equipment control technology that:
 - a. is included on the EPA Verified Retrofit Technology List (<http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm>) or verified by the California Air Resources Board (CARB) (<http://www.arb.ca.gov/diesel/verdev/verdev.htm>) or
 - b. meets one of the following diesel emission control devices as defined in Section 2-92-595 of the Chicago Municipal Code:
 - (1) "Level 1 Control" is defined as an emission control device that achieves a particulate matter (PM) emission reduction of 25% or more.

- (2) "Level 2 Control" is defined as an emission control device that achieves a PM emission reduction of 50% or more.
 - (3) "Level 3 Control" is defined as an emission control device that achieves a PM emission reduction of 85% or more.
 - 2. Per Section 2-92-595 of the Chicago Municipal Code, diesel equipment emissions for all applicable equipment used in the performance of the contract shall be calculated using the clean fleet score (CFS) calculation described in 2-92-595 (c)(3) and included on the Diesel Emissions Compliance Form.
 - 3. Per Section 2-92-595 of the Chicago Municipal Code, compliance with diesel equipment emissions shall be measured as described in 2-92-595 (b) using the average CFS for all diesel equipment used in the performance of the contract.
 - a. After January 1, 2014, the average CFS shall be a minimum of 2.1.
 - b. After January 1, 2017, the average CFS shall be a minimum of 3.0.
 - c. After January 1, 2020, the average CFS shall be a minimum of 4.0.
- D. Biodiesel must meet the requirements of ASTM D 6751. Any heavy-duty diesel vehicle, non-road diesel vehicle, or non-road equipment meeting the requirements of 2-92-595 (c)(3)(i) to (c)(3)(vii) that uses only a biodiesel blend of B20 (20% by volume of biodiesel in petroleum-based diesel) or greater during the reporting period can increase its clean fleet score by 0.5 points.

2.03 INTERPRETATION OF REQUIREMENTS

- A. The interpretation of these requirements and any determination of lack of compliance with these requirements may be made the subject of a claim to the Commissioner. However, the Commissioner's decision will be final. The Contractor may not file a dispute under Article XVII of Part 2 General Conditions.

PART 3 EXECUTION

3.01 PLAN IMPLEMENTATION

- A. General: Implement the Diesel Emission Compliance Plan as approved by Commissioner. All vehicles and equipment to which this requirement is applicable will be subject to random inspections to ensure full compliance with these requirements. If any equipment is found to be non-compliant, the Contractor, Subcontractor or Supplier must remove or retrofit this equipment or vehicle within 24 hours or be subject to possible impoundment by the Chicago Department of Aviation until that piece of equipment or vehicle is removed from the Project.
- B. Diesel Equipment Coordinator: Assign a Diesel Equipment Coordinator to be a single point of contact responsible for implementation, monitoring, and reporting

of the diesel emission compliance requirements. Coordinator must be present for the duration of the Contract.

- C. Training: Contractor is responsible for training workers, subcontractors, and suppliers on diesel emission compliance requirements as applicable to this Contract. Distribute the Diesel Emissions Compliance Plan to all subcontractors and suppliers when Contract work begins.
- D. Idling Restrictions
 - 1. Idling of diesel powered vehicles and equipment must not be permitted during periods of non-active vehicle use. Diesel powered engines shall not be allowed to idle for more than three consecutive minutes in a 60-minute period when the equipment is; not in use, occupied by an operator, or otherwise in motion, except only as follows:
 - a. When equipment is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control,
 - b. When it is necessary to operate auxiliary systems installed on the equipment, only when such system operation is necessary to accomplish the intended use of the equipment,
 - c. To bring the equipment to the manufacturers recommended operating temperature,
 - d. When the ambient temperature is below forty (40) degrees F or above eighty (80) degrees F, or
 - e. When equipment is being repaired.
 - 2. The use of idling reduction devices is encouraged. Idle reduction technology allows engine operators to refrain from long-duration idling of the main propulsion engine by using an alternative technology such as automatic engine shutoff, direct-fired/fueled heaters, auxiliary power units, or electrified heat/air conditioning units. An idle reduction technology is generally defined as the installation of a technology or device that:
 - a. reduces unnecessary main engine idling of the vehicle or equipment, and/or
 - b. is designed to provide services (e.g., heat, air conditioning, and/or electricity) to the vehicle or equipment that would otherwise require the operation of the main drive engine while the vehicle or equipment is temporarily parked or remains stationary.
- E. Clean Buses/Light Duty Vehicles
 - 1. Contractors are to incorporate, to the greatest extent possible, any other measures that may assist in reducing air quality emissions during the performance of the contract. For example, many cleaner vehicle options

now exist for employee shuttle buses and Light Duty Vehicles (LDVs) including compressed natural gas (CNG), hybrid (fuel/electric), flex fuel, biodiesel (B20 or greater), and demand on displacement. The availability of cleaner vehicle options is anticipated to expand over time and over the course of the Project. Contractors working on the Project are strongly encouraged to consider these options when making purchase decisions.

2. Each Shuttle Bus used in the performance of this contract must be outfitted with a functioning idle-shutdown timer to automatically shut down the vehicle's engine after three minutes of idling. Idle-reduction devices must allow for the elimination of unnecessary idling while providing for the comfort and safety of the driver and passengers. Such equipment may include, but is not limited to, additional battery storage, auxiliary fuel-fired heaters; auxiliary battery powered air conditioners and packaged auxiliary-power-unit solutions. The Contractor must strictly enforce a no-idling policy on all drivers involved in performance of this contract while ensuring that vehicle scheduling and on-board idle-reduction equipment function to reduce any need for idling.
3. See also SAM Credit 7.8 – Alternative Transportation During Construction.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Air Quality – Equipment Emission Compliance will not be measured separately for payment, but will be considered included in the overall Contract.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. All costs associated with meeting these requirements are included in the overall Contract. No additional time or monies will be granted to the Contractor for compliance with these requirements and any associated regulations.

END OF SECTION 01111

CHICAGO DEPARTMENT OF AVIATION

01111 AIR QUALITY - EQUIPMENT EMISSIONS

SUBMITTAL TRANSMITTAL COVER SHEET

Date: _____
Project: _____
WBS No. _____

Attention: Construction Manager

To: O'Hare Modernization Program and via email to:
10501 W. Zemke Blvd. samdocs@cityofchicago.org
Chicago, Illinois 60666

The following form(s) are submitted to comply with the requirements of the 01111 Air Quality – Equipment Emissions Specification Section (Check one):

- Diesel Emission Compliance Plan and Pre-Construction Diesel Emission Compliance Form
- Monthly Diesel Emission Compliance Form
- Final Diesel Emission Compliance Form

| | |
|---------------|--|
| From: | |
| Company: | |
| Printed Name: | |
| Title: | |
| Signature: | |
| Date: | |

| | |
|--------------|-------------------|
| Reviewed by: | |
| | Resident Engineer |

Note: These submittal requirements are in addition to the requirements put forth by the City of Chicago as outlined in Section 2-92-595 of the Chicago Municipal Code.

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Chicago Department of Aviation

DIESEL EMISSIONS COMPLIANCE FORM - Chicago Municipal Code 2-92-595 (c)(2)

Section 01000 - Construction Air Quality - Diesel Equipment Emission

Project: _____

WBS No.: _____

Submittal Reporting _____

Contractor Information
2-92-595 (c)(2)

Contractor _____

Contact _____

Address _____

Telephone _____

| Equipment Equip. No. | Equipment Information 2-92-595 (c)(2) | | | | | | EPA Tier Compliance Level | Emission Control Device Emission Control Device Use | Compliance 2-92-595 |
|-------------------------|--|------|-------|------|----|--------------|------------------------------|---|------------------------|
| | Type | Make | Model | Year | HP | Fuel Type | | | |
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Certification Statement
2-92-595 (c)(2)

I, in connection with the above captioned project (Location, (City), (State), (County) name), hereby certify that the information furnished above on this Diesel Emission Compliance Report conforms to Chicago Municipal Code 2-92-595 and I affirm and accurately account for all equipment that is utilized on the project for the above-referenced construction.

Company _____

Print Name _____

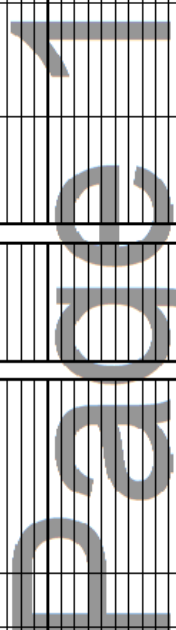
Title _____

Signature _____

Date _____

REVIEWED BY: _____

(Resident Engineer)



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Office of Chicago City Clerk



O2011-1418

Office of the City Clerk

Tracking Sheet

Meeting Date: 3/9/2011
Sponsor(s): Mayor Daley
Type: Ordinance
Title: Amendment of Chapter 2-92 of Municipal Code by adding new Section 595 regarding requirements associated with diesel equipment use
Committee(s) Assignment: Committee on Energy, Environmental Protection and Public Utilities

ENERGY



OFFICE OF THE MAYOR
CITY OF CHICAGO

RICHARD M. DALEY
MAYOR

March 9, 2011

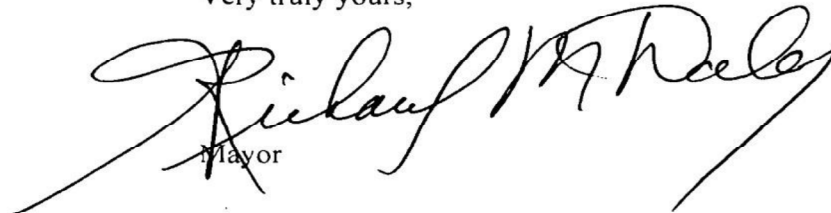
TO THE HONORABLE, THE CITY COUNCIL
OF THE CITY OF CHICAGO

Ladies and Gentlemen:

At the request of the Commissioner of the Environment, I transmit herewith an ordinance amending the Municipal Code regarding requirements associated with diesel equipment use.

Your favorable consideration of this ordinance will be appreciated.

Very truly yours,



Mayor

ORDINANCE

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHICAGO:

SECTION I. Chapter 2-92 of the Municipal Code of Chicago is hereby amended by inserting a new section 2-92-595, as follows:

2-92-595 Clean diesel contracting.

- (a) *Definitions.* For purposes of this section, the following definitions shall apply:
- (1) "Biodiesel" means a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, designated B100, and meeting the requirements of the American Society for Testing Materials ("ASTM") D 6751.
 - (2) "Biodiesel blend" means a blend of biodiesel meeting ASTM D 6751 with petroleum-based diesel fuel, designated BXX, where XX represents the volume percentage of biodiesel fuel in the blend.
 - (3) "CARS" means the California Air Resources Board.
 - (4) "Clean fleet score ("CPS") waiver grantee" means any construction firm to which the commissioner of environment has granted a clean fleet score annual waiver certificate pursuant to subsection (f) of this section.
 - (5) "Compression-ignition engine" means a reciprocating, internal-combustion engine that is not a spark-ignition engine.
 - (6) "Contract" means any contract, the amount of which is \$2,000,000 or more, awarded by the city and whose cost is to be paid from funds belonging to or administered by the city, for construction projects including, but not limited to, the construction, demolition, restoration, repair, renovation, environmental remediation or environmental abatement of any building, structure, tunnel, excavation, roadway, bridge, transit station or parcel of land. The term "contract" does not include a fixed-price, fixed term, and indefinite quantity contract, such as contracts commonly referred to as "job order contracts," unless the estimated value of an individual order under the contract is \$2,000,000 or more.
 - (7) "Contractor" means any person that enters into a contract with the city.
 - (8) "Department" means any city department or city agency that manages or supervises a contract awarded to a contractor.
 - (9) "Engine model year" means the year designating the annual new model production period during which the engine was produced, determined in accordance with 42 U.S.C. § 7521(b)(3), 40 C.F.R. § 86.082-2, 40 C.F.R. § 89.2, or 13 C.C.R. § 2421(a)(37) for purposes of compliance with US EPA or CARB emissions certification requirements and may differ from the model year of the vehicle or equipment powered by the engine.

- (10) "Heavy-duty diesel vehicle" means a motor vehicle with a gross vehicle weight rating of at least 8,500 pounds that is powered by a compression-ignition engine and which is not a "heavy-duty alternative-fuel vehicle."
- (11) "Heavy-duty alternative-fuel vehicle" means a motor vehicle with a gross vehicle weight rating of at least 8,500 pounds that is powered by an engine fueled at a minimum 80 percent, as measured by energy content, by natural gas, liquefied petroleum gas (commonly known as "propane"), hydrogen, or another fuel designated as an alternative fuel by the United States Department of Energy.
- (12) "Level 1 Control" means a verified diesel emission control retrofit device that achieves a particulate matter (PM) emission reduction of 25 percent or more from uncontrolled compression-ignition engine emission levels.
- (13) "Level 2 Control" means a verified diesel emission control retrofit device that achieves a particulate matter (PM) emission reduction of 50 percent or more from uncontrolled compression-ignition engine emission levels.
- (14) "Level 3 Control" means a verified diesel emission control retrofit device that achieves a particulate matter (PM) emission reduction of 85 percent or more from uncontrolled compression-ignition engine emission levels.
- (15) "Motor vehicle" means any self-propelled vehicle designed for transporting persons or property on a street or highway.
- (16) "Non-road engine" means a fifty horsepower or greater compression-ignition engine: (i) in or on a piece of equipment that is self-propelled (such as a cart or truck that is not a motor vehicle) or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers); or (ii) in or on a piece of equipment that is intended to be propelled while performing its function (such as pushed or towed equipment); or (iii) that, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. The term "non-road engine" does not include an engine that is used in a motor vehicle or vehicle used solely for competition, or in a stationary source, except that this term shall include compression-ignition engines used to power portable generators, portable compressors or similar equipment used in any construction program or project.
- (17) "Non-road equipment" means equipment that is powered by a non-road engine.
- (18) "Non-road vehicle" means a vehicle that is powered by a non-road engine and that is not a motor vehicle or a vehicle used solely for competition.
- (19) "Reporting day" means the fifth day on which city business is transacted following the last working day of every reporting period.
- (20) "Reporting period" means (i) every 60 working day period from the beginning of work on the contract; or (ii) the period between the first working day and the last working day, if the contract is completed in less than a 60 working

day period; or (iii) any period following the last day of the last 60 working day period up to and including the last working day, if such period consists of not more than 75 working days and, if such period consists of more than 60 working days, the contractor provides a written notice to the department before the 60th working day that such period will consist of more than 60 working days.

- (21) "Solicitation" means the process used to communicate procurement requirements and to request responses from interested vendors.
- (22) "Spark-ignition engine" means a gasoline-fueled engine or other engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle and uses a throttle to regulate intake air flow to control power during normal operation.
- (23) "Subcontractor" means any person that enters into a contract with a contractor to perform work on a contract.
- (24) "Tier 1 Non-road Diesel Standards," "Tier 2 Non-road Diesel Standards," "Tier 3 Non-road Diesel Standards," or "Tier 4 Non-road Diesel Standards" means US EPA's Tier 1, Tier 2, Tier 3, or Tier 4 Non-road engine emission standards, respectively, as specified in 40 C.F.R. § 89.112(a), 40 C.F.R. § 1039.101, and 40 C.F.R. § 1039.102.
- (25) "Ultra low sulfur diesel fuel" means diesel fuel that has a sulfur content of no more than fifteen parts per million.
- (26) "US EPA" means the United States Environmental Protection Agency.
- (27) "Verified diesel emission control retrofit device" means an emission control device or strategy that has been verified to achieve a specified diesel PM reduction by US EPA or CARB. "Verified diesel emission control retrofit device" does not mean the use of ultra low sulfur diesel fuel alone or a device installed by the engine manufacturer for purposes of compliance with US EPA or CARB emissions certification requirements.
- (28) "VIN" means vehicle identification number.
- (29) "Working day" means a day on which work is performed on a construction project site pursuant to a contract.

(b) *Emission reduction.* (1) Any solicitation for a contract advertised or otherwise communicated on or after June 1, 2011, and any contract entered into as a result of such solicitation shall include a specification that the contractor and any subcontractor, including a CFS waiver grantee, shall use ultra low sulfur diesel fuel for any heavy-duty diesel vehicle, non-road vehicle or non-road equipment used in the performance of the contract.

- (2) Any solicitation for a contract advertised or otherwise communicated on or after June 1, 2011, and any contract entered into as a result of such solicitation shall include a specification that the contractor or any subcontractor, including a CFS waiver grantee, shall minimize idling of motor vehicles and non-road vehicles used in the performance of the contract during periods of inactivity and shall comply with the anti-idling requirements imposed by any applicable federal, state or local law.

- (3) Any solicitation for a contract advertised or otherwise communicated on or after January 1, 2014, and any contract entered into as a result of such solicitation shall include a specification that any contractor or any subcontractor, including a CFS waiver grantee, shall not use any of the following vehicles and equipment in the performance of the contract:
 - (i) any heavy-duty diesel vehicle not meeting or exceeding the US EPA's emission standards for heavy-duty diesel vehicles for the 1998 engine model year, unless such vehicle is fitted with a verified diesel emission control retrofit device; or
 - (ii) any non-road vehicle or non-road equipment not meeting or exceeding the US EPA's Tier 1 Non-road Diesel Standards, unless such vehicle or equipment is fitted with a verified diesel emission control retrofit device.
- (4) Any solicitation for a contract advertised or otherwise communicated on or after January 1, 2014, and any contract entered into as a result of such solicitation shall include a specification that the heavy-duty diesel vehicles, non-road vehicles and non-road equipment used in the performance of such contract must incorporate such engine or retrofit technology so that the contractor, through such engine or retrofit technology used directly by the contractor and all subcontractors, shall have a minimum of 2.1 clean fleet score per a reporting period, as calculated by using the methodology described in subsection (c)(5) of this section. Such solicitation and contract shall also include a specification that the contractor may exclude from the calculation of the clean fleet score all of the heavy-duty diesel vehicles, non-road vehicles and non-road equipment used in the performance of the contract during a reporting period that are owned or leased by any CFS waiver grantee.
- (5) Any solicitation for a contract advertised or otherwise communicated on or after January 1, 2017, and any contract entered into as a result of such solicitation shall include a specification that the heavy-duty diesel vehicles, non-road vehicles and non-road equipment used in the performance of such contract must incorporate such engine or retrofit technology so that the contractor, through such engine or retrofit technology used directly by the contractor and all subcontractors, shall have a minimum of 3.0 clean fleet score per a reporting period, as calculated by using the methodology described in subsection (c)(5) of this section. Such solicitation and contract shall also include a specification that the contractor may exclude from the calculation of the clean fleet score up to fifty (50) percent of all the heavy-duty diesel vehicles, non-road vehicles and non-road equipment used in the performance of the contract during a reporting period that are owned or leased by any CFS waiver grantee.
- (6) Any solicitation for a contract advertised or otherwise communicated on or after January 1, 2020, and any contract entered into as a result of such solicitation shall include a specification that the heavy-duty diesel vehicles, non-road vehicles and non-road equipment used in the performance of such

contract must incorporate such engine or retrofit technology so that the contractor, through such engine or retrofit technology used directly by the contractor and all subcontractors, shall have a minimum of 4.0 clean fleet score per a reporting period, as calculated by using the methodology described in subsection (c)(5) of this section. Such solicitation and contract shall also include a specification that the contractor may exclude from the calculation of the clean fleet score up to twenty-five (25) percent of all the heavy-duty diesel vehicles, non-road vehicles and non-road equipment used in the performance of the contract during a reporting period that are owned or leased by any CFS waiver grantee.

(c) **Compliance.** (1) Any solicitation for a contract advertised or otherwise communicated on or after January 1, 2014, and any contract entered into as a result of such solicitation shall include a specification that the contractor shall submit a written compliance plan to the department with respect to compliance with the requirements of this section within 14 days following the notice to proceed. The plan shall detail the strategy to be used by the contractor to comply with the requirements of this section. The chief procurement officer and the commissioner of environment are authorized to determine the contents of a compliance plan by rules and regulations promulgated pursuant to subsection (h) of this section.

(2) On every reporting day, the contractor must submit to the department a detailed report of all heavy-duty diesel motor vehicles, non-road vehicles and non-road equipment used in the performance of such contract during the reporting period preceding the reporting day. The report shall, on a form provided by the city, include the following:

- (i) names, addresses, and telephone numbers of the contractor, any subcontractor, and the person responsible for the operation of the vehicles or equipment listed on the report;
- (ii) for each heavy-duty diesel vehicle, the manufacturer, engine manufacturer, engine model year, VIN, the specific type of fuel that was used, and estimated hours of operation during the period covered by the report;
- (iii) for each non-road vehicle and non-road equipment, the manufacturer, engine manufacturer, serial number or engine serial number, engine US EPA Tier rating, the specific type of fuel that was used, and estimated hours of operation during the period covered by the report;
- (iv) for any heavy-duty diesel vehicle, non-road vehicle or non-road equipment fitted with a verified diesel emission control retrofit device, the retrofit device type, US EPA or CARB verification level and year of installation, in addition to the information required by subsections (c)(2)(ii) and (c)(2)(iii) of this subsection;
- (v) a clean fleet score calculated in accordance with the provisions of this subsection; and

- (vi) a certification that the contractor has met the requirements of this section and the terms of the contract specified pursuant to the provisions of this section.
- (3) For the purpose of calculating a clean fleet score, each heavy-duty diesel vehicle, heavy-duty alternative-fuel vehicle, non-road vehicle and non-road equipment used in the performance of the contract shall be assigned a numerical value, as follows:
- (i) 0 points for any heavy-duty diesel vehicle with an engine model year of 2003 or earlier not fitted with any verified diesel emission control retrofit device;
 - (ii) 0 points for any non-road vehicle and non-road equipment meeting US EPA's Tier 1 Non-road Diesel Standards and not fitted with any verified diesel emission control retrofit device;
 - (iii) 1 point for any heavy-duty diesel vehicle with an engine model year of 2004, 2005 or 2006 and not fitted with any verified diesel emission control retrofit device;
 - (iv) 1 point for any heavy-duty diesel vehicle, non-road vehicle and non-road equipment fitted with a Level 1 Control;
 - (v) 2 points for any non-road vehicle and non-road equipment meeting US EPA's Tier 2 Non-road Diesel Standards and not fitted with any verified diesel emission control retrofit device;
 - (vi) 2.25 points for any non-road vehicle and non-road equipment meeting US EPA's Tier 3 Non-road Diesel Standards and not fitted with any verified diesel emission control retrofit device;
 - (vii) 3 points for any heavy-duty diesel vehicle, non-road vehicle and non-road equipment fitted with a Level 2 Control;
 - (viii) 3 points for any heavy-duty alternative-fuel vehicle with an engine model year of 2004, 2005 or 2006;
 - (ix) 4 points for any heavy-duty diesel vehicle with an engine model year of 2007, 2008 or 2009 and not fitted with any verified diesel emission control retrofit device;
 - (x) 4 points for any heavy-duty alternative-fuel vehicle with an engine model year of 2007, 2008 or 2009;
 - (xi) 4 points for any non-road vehicle and non-road equipment meeting US EPA's Tier 4 Non-road Diesel Standards and not fitted with any verified diesel emission control retrofit device;
 - (xii) 4 points for any heavy-duty diesel vehicle, non-road vehicle or non-road equipment fitted with a Level 3 Control;
 - (xiii) 5 points for any heavy-duty diesel vehicle with an engine model year of 2010 or later;
 - (xiv) 5 points for any heavy-duty alternative-fuel vehicle with an engine model year of 2010 or later; and
 - (xv) 5 points for any heavy-duty diesel vehicle, non-road vehicle and non-road equipment fitted with a verified diesel emission control retrofit device exceeding the efficiency levels of a Level 3 Control to the

extent that the verified diesel emission control retrofit device provides emissions reductions equivalent to the US EPA requirements for heavy-duty diesel vehicles engine model year 2010.

- (4) Each heavy-duty diesel vehicle, non-road vehicle and non-road equipment used in the performance of the contract shall be assigned only the maximum assigned point value for which it qualifies during one reporting period; provided, however, that the maximum assigned value for each heavy-duty diesel vehicle, non-road vehicle and non-road equipment listed in subsections (c)(3)(i) through (c)(3)(vii) of this section that consumed only a B20 or greater biodiesel blend during the reporting period shall be increased by one half point.
- (5) The clean fleet score for each reporting period shall be calculated by adding the numerical point values allocated, in accordance with subsections (c)(3) and (c)(4) of this section, to each heavy-duty diesel vehicle, non-road vehicle and non-road equipment used in the performance of the contract during the reporting period and dividing the total numerical point values by the total number of all heavy-duty diesel vehicles, non-road vehicles and non-road equipment used in the performance of the contract during the reporting period; provided, however, the contractor may, to the extent specified in the contract pursuant to subsections (b)(4), (b)(5) and (b)(6) of this section, exclude from the calculation of the clean fleet score heavy-duty diesel vehicles, non-road vehicles and non-road equipment used in the performance of the contract during the reporting period that are owned or leased by all CFS waiver grantees.

(d) **Costs.** All costs associated with meeting the requirements imposed pursuant to this section are incidental to the overall contract. No additional time or monies will be granted to the contractor for compliance with the requirements imposed pursuant to this section and any regulations promulgated pursuant thereto.

(e) **Enforcement.** Any solicitation for a contract subject to the provisions of this section and any contract entered into as a result of such solicitation shall include terms necessary to enforce the provisions of this section, including, but not limited to, terms

- (1) requiring the contractor and subcontractors to comply with the provisions of this section;
- (2) specifying that any city agency may conduct an audit to verify the contractor's compliance with the requirements of this section and the terms of the contract specified pursuant to the provisions of this section;
- (3) specifying that the commissioner or head of the department or the commissioner of environment or any other city agency designated by the commissioner or head of the department or the commissioner of environment is authorized to inspect or to have inspected any vehicle or equipment in order to ensure full compliance with contract requirements specified pursuant to subsections (b)(1), (b)(2), and (b)(3) of this section;

- (4) specifying that in the event of violation of any of the specifications required pursuant to subsections (b)(1), (b)(2), and (b)(3) of this section, liquidated damages shall be assessed against the contractor in the amount of \$5,000 for each violation and that each day of noncompliance shall be a separate violation; provided, however, the damages shall not exceed a total of \$50,000 for any one vehicle or piece of equipment; that such liquidated damages are not imposed as a penalty but as an estimate of the damages that the city will sustain from delay in completion of the project and inspection and other enforcement costs, as well as the resultant damages to the public health of its citizens, which damages by their nature are not capable of precise proof; and authorizing the city to withhold and deduct from monies otherwise payable to the contractor the amount of liquidated damages due to the city;
- (5) specifying that in the event the contractor has not met the minimum clean fleet score specified pursuant to subsections (b)(4), (b)(5) or (b)(6) of this section during any reporting period, liquidated damages shall be assessed against the contractor in the dollar amount that shall be calculated as follows:
- (RCFS - ACFS) x \$500.00 x the number of working days in the reporting period; where RCFS stands for the minimum required clean fleet score during the reporting period and ACFS stands for the actual clean fleet score obtained by the contractor in the reporting period.
- Such solicitation or contract shall also specify that noncompliance during each reporting period shall be a separate violation; that such liquidated damages are not imposed as a penalty but as an estimate of the damages that the city will sustain from delay in completion of the project and inspection and other enforcement costs, as well as the resultant damages to the public health of its citizens, which damages by their nature are not capable of precise proof; and authorizing the city to withhold and deduct from monies otherwise payable to the contractor the amount of liquidated damages due to the city; and
- (6) specifying that any person who knowingly makes a false statement of material fact to any city agency with respect to compliance with any of the contract requirements specified pursuant to any of the provisions of this section or rules and regulations promulgated thereunder shall be fined not less than \$1,000.00 nor more than \$5,000.00 for each such false statement. For purposes of this section, a person knowingly makes a false statement of material fact when such person makes a false statement of material fact as described in subsection (d) of section 1-21-010 of this Code.

(f) *Clean fleet score annual waiver.* (1) Any construction firm may apply to the commissioner of environment for a clean feet score annual waiver certificate. Applications for a clean feet score annual waiver certificate shall be on a form provided by the department of environment and shall be accompanied by a non-refundable application fee of \$100.00. The

application shall also include all of the following information and statements which shall be verified by affidavit:

- (i) list of all heavy-duty diesel vehicles, non-road vehicles and non-road equipment owned or leased by the applicant at the time of application, including the horsepower, and, to the extent applicable, the manufacturer, engine manufacturer, engine model year, VIN, serial number or engine serial number, and engine US EPA Tier rating of each of such vehicles and equipment (for purposes of this subsection, "listed vehicles and equipment");
 - (ii) a statement that the sum total horsepower of all of the listed vehicles and equipment is less than or equal to 2,500 horsepower (hp); and
 - (iii) a statement that repowering, replacing or retrofitting all or some of the listed vehicles and equipment in order to comply with contract requirements that shall be specified in accordance with the provisions of this section will cause the applicant to suffer an undue financial hardship.
- (2) If, upon review of the application, the commissioner of environment or the commissioner's designee determines that the applicant has met all of the requirements set forth in subsection (f)(1) of this section, the commissioner is authorized to grant a clean fleet score annual waiver certificate to the applicant.
 - (3) Any contractor may exclude from the calculation of the clean fleet score, to the extent allowed in subsection (b)(4), (b)(5), and (b)(6) of this section, the heavy-duty diesel vehicles, non-road vehicles and non-road equipment used in the performance of the contract during a reporting period that are owned or leased by any CFS waiver grantee.
 - (4) A clean fleet score annual waiver certificate granted pursuant to this subsection shall be valid as long as the grantee continues to qualify for such waiver; provided, however, no such waiver shall be valid for more than a one year period from the time it has been granted; and further provided that the commissioner may renew the clean fleet score annual waiver certificate for additional one year periods upon submission by the CFS waiver grantee of a statement verified by affidavit that any of the information and statements that the CFS waiver grantee submitted to the commissioner to qualify for the waiver are not changed.
 - (5) Any person who knowingly makes a false statement of material fact to the commissioner of environment with respect to a clean fleet score annual waiver certificate application specified in this subsection or rules and regulations promulgated thereunder shall be subject to the penalties provided in section 1-21-010 of this Code. For purposes of this section, a person knowingly makes a false statement of material fact when such person makes a false statement of material fact as described in subsection (d) of section 1-21-010 of this Code.
 - (6) No clean fleet score annual waiver certificate shall be granted as of January 1, 2023.
 - (g) *Recordkeeping.* The contractor shall maintain copies of plans, reports and clean fleet scores prepared or calculated and submitted in accordance with subsections (c)(1) and (c)(2)

of this section for a period of three years after the completion of the contract, and, if requested by any city agency, shall make them available for the purpose of auditing.

(h) *Regulations.* The chief procurement officer and the commissioner of environment are authorized to jointly adopt rules and regulations they may deem appropriate for the administration and enforcement of the provisions of this section.

(i) *Scope.* (1) This section shall not apply to any contract to the extent that the requirements imposed by this section are inconsistent with procedures or standards required by any law or regulation of the United States or the State of Illinois to the extent such inconsistency is not permitted under the home rule powers of the city.

(2) Any contractor, subcontractor or CFS waiver grantee, performing a contract that the commissioner of aviation is authorized to enter into in relation to the design, construction, operation and maintenance of all public airports owned or operated by the city, including, but not limited to, O'Hare Modernization Program contracts, as the term "O'Hare Modernization Program" is defined in section 2-20-025(a) of this Code, shall comply with (i) the construction air quality specifications set forth in any such contract, and (ii) all contract requirements that shall be specified in accordance with the provisions of this section; provided, however, for the purpose of this subsection (i)(2)(ii), any contractor may exclude from the calculation of the clean fleet score the vehicles and equipment used in the performance of the contract during a reporting period that are owned or leased by any CFS waiver grantee to the extent allowed in subsection (b)(4), (b)(5), and (b)(6) of this section.

(j) *Sunset.* Unless otherwise provided by ordinance, the provisions of subsections (c)(1) and (c)(2) of this section shall expire on December 31, 2030.

SECTION II. This ordinance shall take effect 10 days after its passage and approval.

LOCAL/REGIONAL MATERIALS

SECTION 01355

PART 1 GENERAL

1.01 SUMMARY

- A. This Specification includes use and tracking requirements and procedures for compliance with certain sustainable design guidelines based on the Chicago Department of Aviation Sustainable Airport Manual (SAM), latest edition. Reference can be found at www.airportsgoinggreen.com/sam.
- B. This Section includes tracking requirements and forms necessary for compliance with this Specification and in accordance with the requirements of Credit 5.8 of the SAM.

1.02 DEFINITIONS

- A. Regional Materials: Materials and products that are manufactured, extracted, harvested, or recovered within a radius of 500 miles from the Project location. Materials and products manufactured, extracted, harvested, or recovered beyond 500 miles from the Project location but purchased within 500 miles (e.g. through a product sales representative) must not be considered a Regional Material.
- B. Local Materials: Materials and products that are manufactured, extracted, harvested, or recovered within a radius of 250 miles from the Project location. Materials and products manufactured, extracted, harvested, or recovered beyond 250 miles from the Project location but purchased within 250 miles (e.g. through a product sales representative) must not be considered a Local Material.
- C. Manufacturing refers to the final assembly of components into the building product that is installed at the Project site.
- D. Extracted, harvested, or recovered materials include raw building materials that are not manufactured but used in their final form at the Project site. This includes but is not limited to soil, aggregate, wood, salvaged masonry, and reclaimed concrete.

1.03 SUBMITTALS

- A. Pre-Construction Estimate - Prior to the initial Application for Mobilization Payment, the Contractor must submit an estimate that identifies total Project material cost (less labor and equipment) and all Local/Regional Materials that are proposed for the Project. For each material, its source and cost must be identified.
- B. Final Construction Total - With the Application for Reduction of Retainage from 5% to 3%, the Contractor must submit the final actual total Project material cost (less labor and equipment) and all Local/Regional Materials that were used for the Project. For each material, its source and cost must be identified.
- C. The above submittal must be transmitted to the Commissioner and to the following email address: samdocs@cityofchicago.org.

1.04 CALCULATIONS

- A. Only include items in CSI Divisions 2-10 in the calculation of the percentage of materials obtained locally and/or regionally.
- B. Mechanical, electrical, plumbing components, and specialty items (CSI Divisions 11-16) must not be included in this calculation.

PART 2 PRODUCTS

(Not Used)

PART 3 EXECUTION

3.01 DOCUMENTATION TEMPLATE

- A. Local/Regional Materials Pre-Construction Estimate – Template Form 01355-1.03B attached at the end of this Specification should be used by the Contractor as guidance for completion of the Local/Regional Materials submittal requirements as outlined in Part 1 of this Specification Section.
- B. Local/Regional Materials Final Construction Total – Template Form 01355-1.03C attached at the end of this Specification should be used by the Contractor as guidance for completion of the Local/Regional Materials submittal requirements as outlined in Part 1 of this Specification Section.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Regional Materials will not be measured separately for payment, but will be considered included in the overall Contract.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. All costs associated with meeting these requirements are included in the overall Contract. No additional time or monies will be granted to the Contractor for compliance with these requirements and any associated regulations.

END OF SECTION 01355

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Local/Regional Materials Final Construction Estimate (01355-1.03C)

Contractor: _____
Project: _____
WBS No.: _____

Contractor Certification

I, _____ (Contractor), declare the building materials and products as indicated are manufactured, extracted, harvested, or recovered locally/regionally (within 250/500 mile radius of the Project site).

| Description of Material Spec Section Item | Source of Material/Location | Total Construction Cost [\$] | Labor (Subtract from Total) [\$] | Equipment (Subtract from Total) [\$] | = | Total Material Cost (Less Labor & Equipment) [\$] | Local Materials within 250 miles (per 01355-1.02A) [\$] | Regional Materials within 500 miles (per 01355-1.02A) [\$] |
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Company: _____
Printed Name: _____
Title: _____
Signature: _____
Date: _____
Reviewed by: _____
(Resident Engineer)

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RECYCLED CONTENT

SECTION 01356

PART 1 GENERAL

1.01 SUMMARY

- A. This Specification includes use and tracking requirements and procedures for compliance with certain sustainable design guidelines based on the Chicago Department of Aviation Sustainable Airport Manual (SAM), latest edition. Reference can be found at www.airportsgoinggreen.org.
- B. This Section includes tracking requirements and forms necessary for compliance with this Specification and in accordance with the requirements of Credit 5.7 of the SAM.

1.02 RELATED DOCUMENTS

- A. Recycled Content of materials will be defined in accordance with 16 CFR 260.7(e) of the Federal Trade Commission's "Guide for the Use of Environmental Marketing Claims".

1.03 DEFINITIONS

- A. Recycled Materials: Materials that are manufactured, extracted, harvested, or recovered and contain some amount of post-consumer and/or pre-consumer recycled content.
- B. Recycled Content: The percentage by cost of the constituents of a product or building material that have been recovered or otherwise diverted from a solid waste stream, either during the manufacturing process (pre-consumer), or after consumer use (post-consumer):
 - 1. Post-Consumer Recycled Content is consumer waste that has become a raw material (feedstock) for another product. The post-consumer recycled content of an item will be given as a percentage by weight for the purposes of calculating the overall recycled content of the item.
 - 2. Pre-Consumer Recycled Content contains waste from industrial processes that has been traded through the marketplace. The pre-consumer recycled content of an item will be given as a percentage by weight for the purposes of calculating the overall recycled content of the item.

1.04 CALCULATIONS

- A. Only include items in CSI Divisions 2-10 in the calculation of the percentage of materials that have recycled content. This includes but is not limited to concrete

and concrete products, masonry, aggregate, paving materials, steel and steel products, particle boards and other manufactured wood or fiber products, metal siding and roofing, tile paneling, carpet and pads, glazing.

- B. Mechanical, electrical, plumbing components, and specialty items (CSI Divisions 11-16) and items in FAA electrical specification sections (Sections L-100, L-107, L-108, L-110, and L-115) must not be included in this calculation. Items that are not to be considered include but are not limited to pumps, fans, heaters, HVAC equipment, wiring, ductwork, lighting fixtures and controls.
- C. The overall Recycled Content for a product or building material must be the percentage of total materials by cost of post-consumer recycled materials plus one half of the pre-consumer recycled materials.
- D. In the case where the recycled content of an item could not be obtained from a vendor or manufacturer, use the default recycled content percentages for the following materials in the table below (from SAM Credit 5.7). The default values are conservative and, in most cases, the actual recycled content percentages may be higher.

| Material | Recycled Content (%) | |
|-----------------------------------|----------------------|--------------|
| | Post-consumer | Pre-consumer |
| <u>Steel</u> | <u>25%</u> | – |
| <u>Copper</u> | <u>65%</u> | – |
| <u>Aluminum</u> | <u>80%</u> | – |
| <u>Reinforced Concrete Pipe</u> | <u>2 %</u> | – |
| <u>Asphaltic Paving Materials</u> | <u>45%</u> | <u>45%</u> |

1.05 SUBMITTALS

- A. Pre-Construction Estimate - Prior to the Contractor’s initial Applications for Mobilization Payment, the Contractor must submit an estimate (see Form 01356-1.05B, “Recycled Materials Pre-Construction Estimate”) that identifies total Project material cost (less labor and equipment) and the Recycled Content of the materials and products that are proposed for the Project. For each material, its post-consumer recycled content, pre-consumer recycled content, and cost must be identified.

- B. Final Construction Total - With the Application for Reduction of Retainage from 5% to 3%, the Contractor must submit the final actual total Project material cost, less labor and equipment (see Form 01356-1.05C, "Recycled Materials Design Estimate"), and the Recycled Content of the materials and products that were used for the Project. For each material, its post-consumer recycled content, pre-consumer recycled content, and cost must be identified.
- C. The above submittals must be transmitted to the Commissioner and to the following email address: samdocs@cityofchicago.org.

PART 2 PRODUCTS

(Not Used)

PART 3 EXECUTION

3.01 DOCUMENTATION TEMPLATE

- A. Recycled Content Pre-Construction Estimate – Template Form 01356-1.05B attached at the end of this Specification Section should be used by the Contractor as guidance for completion of the Recycled Content submittal requirements as outlined in Part 1 of this Specification Section .
- B. Recycled Content Final Construction Total – Template Form 01356-1.05C attached at the end of this Specification Section should be used by the Contractor as guidance for completion of the Recycled Content submittal requirements as outlined in Part 1 of this Specification Section.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Recycled Materials will not be measured separately for payment, but will be considered included in the overall Contract.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. All costs associated with meeting these requirements are included in the overall Contract. No additional time or monies will be granted to the Contractor for compliance with these requirements and any associated regulations.

END OF SECTION 01356

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SUSTAINABLE TEMPORARY CONSTRUCTION MATERIALS

SECTION 01360

PART 1 GENERAL

1.01 SUMMARY

- A. This Section includes use and tracking requirements and procedures for compliance with certain sustainable design guidelines based on Chicago Department of Aviation Sustainable Airport Manual (SAM), latest edition. Reference can be found at www.airportgoinggreen.org.
- B. This Section includes tracking requirements and forms necessary for compliance with this Specification and in accordance with the requirements of Credit 7.11 of the SAM.
- C. The requirements of this Section are applicable only for temporary construction materials defined as those materials that are used for construction that are not incorporated into the final development which may include, but are not limited to, items such as erosion control materials, temporary roadway pavements, shoring materials, formwork, temporary carpentry, and traffic control devices and signage.

1.02 RELATED DOCUMENTS

- A. Recycled Content of materials will be defined in accordance with 16 CFR 260.7(e) of the Federal Trade Commission's "Guide for the Use of Environmental Marketing Claims".

1.03 DEFINITIONS

- A. Recycled Materials: Materials that are manufactured, extracted, harvested, or recovered and contain some amount of post-consumer and /or pre-consumer recycled content.
- B. Recycled Content: The percentage by cost of the constituents of a product or building material that have been recovered or otherwise diverted from a solid waste stream, either during the manufacturing process (pre-consumer), or after consumer use (post-consumer):
 - 1. Post-Consumer Recycled Content is consumer waste that has become a raw material (feedstock) for another product. The post-consumer recycled content of an item will be given as a percentage by weight for the purposes of calculating the overall recycled content of the item.
 - 2. Pre-consumer Recycled Content contains waste from industrial processes that has been traded through the marketplace. The pre-consumer

recycled content of an item will be given as a percentage by weight for the purposes of calculating the overall recycled content of the item.

- C. Rapidly Renewable Materials: Materials and products that are made from plants that are typically harvested within a 10-year or shorter cycle.
- D. Certified Wood: Wood and wood products that are certified in accordance with the Forest Stewardship Council (FSC) criteria.

1.04 CALCULATIONS

A. Recycled Content of Temporary Construction Materials:

1. Only include items in CSI Divisions 2-10 in the calculation of the percentage of temporary construction materials that have recycled content. This includes but is not limited to temporary pavements, masonry, aggregate, erosion control items such as silt fence, steel products such as construction fences, temporary carpentry including manufactured wood or fiber products, metal formwork, and temporary construction signage.
2. Mechanical, electrical, plumbing components, and specialty items (CSI Divisions 11-16) and items in FAA electrical specification sections (Sections X-100, L-100, L-108, L-110, and L-125) must not be included in this calculation. Items that are not to be considered include but are not limited to pumps, fans, heaters, wiring, ductwork, lighting fixtures and controls.
3. Do not include rented or leased items.
4. The overall recycled content for the temporary construction materials must be the percentage of post-consumer recycled materials plus one half of the pre-consumer recycled materials with respect to the total temporary construction materials by cost.
5. In the case where the recycled content of an item could not be obtained from a vendor or manufacturer, use the default recycled content percentages for the following materials in the table below (from SAM Credit 5.7). The default values are conservative and, in most cases, the actual recycled content percentages may be higher.

| Material | Recycled Content (%) | |
|----------------------------|----------------------|-------------|
| | Postconsumer | Preconsumer |
| Steel | 25% | - |
| Copper | 65% | - |
| Aluminum | 80% | - |
| Reinforced Concrete Pipe | 2% | - |
| Asphaltic Paving Materials | 45% | 45% |

B. Rapidly Renewable Temporary Construction Materials:

1. Only include items in CSI Divisions 2-10 in the calculation of the percentage of temporary construction materials that have recycled content. This includes but is not limited to erosion control items such as silt fence, woven blankets, logs, and temporary carpentry including bamboo or fiber products.
2. Do not include rented or leased items.
3. The overall percentage of renewable materials used for the temporary construction materials must be the percentage of renewable materials and products by cost with respect to the quantity of the total temporary construction materials by cost.

C. Certified Wood Temporary Construction Materials:

1. Include only temporary carpentry or wood materials in the calculation. This includes but is not limited to scaffolding, stakes, shoring, temporary railings and walkways.
2. Do not include rented or leased items.
3. The overall percentage of certified wood used for the temporary construction materials must be the percentage of certified wood materials and products by cost with respect to the quantity of the total temporary construction materials by cost.

1.05 SUBMITTALS

- A. Pre-Construction Estimate – Prior to the initial Application for Mobilization Payment, the Contractor must submit an estimate (see Form 01360-1.05A, “Sustainable Temporary Construction Materials Pre-Construction Estimate”) that identifies total Project material cost (less labor and equipment) and the Recycled

Content, Rapidly Renewable and Certified wood portions of the materials and products that are proposed for the Project.

- B. Final Construction Total - Concurrent with the Application for Reduction of Retainage from 5% to 3%, the Contractor must submit the final actual total Project material cost, less labor and equipment (see Form 01360-1.05B, "Sustainable Temporary Construction Materials Final Construction Total"), and the Recycled , Rapidly Renewable, and Certified wood percentages of the materials and products that were used for the Project.

PART 2 PRODUCTS

(Not Used)

PART 3 EXECUTION

3.01 DOCUMENTATION TEMPLATE

- A. Sustainable Temporary Construction Materials Pre-Construction Estimate – Template Form 01360-1.05A attached at the end of this Specification Section should be used by the Contractor as guidance for completion of the Sustainable Temporary Construction Materials submittal requirements as outlined in Part 1 of this Specification Section.
- B. Sustainable Temporary Construction Materials Final Construction Total – Template Form 01360-1.05B attached at the end of this Specification Section should be used by the Contractor as guidance for completion of the Sustainable Temporary Construction Materials submittal requirements as outlined in Part 1 of this Specification Section .

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. The tracking of Sustainable Temporary Construction Materials will not be measured separately for payment, but will be considered included in the overall Contract.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. All costs associated with meeting these requirements are included in the overall Contract. No additional time or monies will be granted to the Contractor for compliance with these requirements and any associated regulations.

END OF SECTION 01360

**Sustainable Temporary Construction Materials
Pre-Construction Estimate (01360-1.05A)**

Contractor: _____
 Project: _____
 WBS No.: _____

| RECYCLED CONTENT | | Total Construction Cost [\$] | Labor (\$) (Subtract from Total) | Equipment (\$) (Subtract from Total) | Total Material Cost (\$) (Less Labor & Equipment) | Recycled Content (per 01360-1.03B) Overall = Post-Consumer + 1/2 Pre-Consumer | | |
|---|---------------------------------|---------------------------------|--|--|---|--|------------------|--------------|
| Spec Section | Description of Material Item | | | | | Post-Consumer [%] | Pre-Consumer [%] | Overall [\$] |
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| TOTAL RECYCLED CONTENT OF MATERIALS AS A PERCENT OF TOTAL TEMPORARY CONSTRUCTION MATERIALS COST | | | | | | | | #DIV/0! |
| RENEWABLE MATERIALS | | Total Construction Cost [\$] | Labor (\$) (Subtract from Total) | Equipment (\$) (Subtract from Total) | Total Material Cost (\$) (Less Labor & Equipment) | Rapidly Renewable Materials (per 01360-1.03C) | | |
| Spec Section | Description of Material Item | | | | | Overall [\$] | | |
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| RAPIDLY RENEWABLE MATERIALS AS A PERCENT OF TOTAL TEMPORARY CONSTRUCTION MATERIALS COST | | | | | | | | #DIV/0! |
| CERTIFIED WOOD | | Total Construction Cost [\$] | Labor (\$) (Subtract from Total) | Equipment (\$) (Subtract from Total) | Total Material Cost (\$) (Less Labor & Equipment) | Certified Wood (per 01360-1.03D) | | |
| Spec Section | Description of Material Item | | | | | Overall [\$] | | |
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| CERTIFIED WOOD MATERIALS AS A PERCENT OF TOTAL TEMPORARY CONSTRUCTION MATERIALS COST | | | | | | | | #DIV/0! |

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 Printed Name: _____
 Title: _____
 Signature: _____
 Date: _____

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**Sustainable Temporary Construction Materials
Final Construction Total (01360-1.05B)**

Contractor: _____
Project: _____
WBS No.: _____

Contractor Certification

I, insert Contractor's name declare that this list constitutes all of the temporary building materials and products and that, where applicable, the items as shown meet the definition of Recycled Content, Rapidly Renewable, and Certified Wood materials per the specification section(s).

| RECYCLED CONTENT Description of Material | | Total Construction Cost | - | Labor | - | Equipment | = | Total Material Cost | Recycled Content (per 01360-1.03B) Overall = Post-Consumer + 1/2 Pre-Consumer | | |
|---|------|-------------------------------|---|-------------------------------|---|-------------------------------|---|----------------------------------|--|---------------------|-----------------|
| Spec Section | Item | [\$] | | (Subtract from Total) [\$] | | (Subtract from Total) [\$] | | (Less Labor & Equipment) [\$] | Post-Consumer [%] | Pre-Consumer [%] | Overall [\$] |
| | | - | - | - | - | - | = | \$ - | | | \$ - |
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| TOTAL RECYCLED CONTENT OF MATERIALS AS A PERCENT OF TOTAL TEMPORARY CONSTRUCTION MATERIALS COST | | | | | | | | | | | #DIV/0! |
| RENEWABLE MATERIALS Description of Material | | Total Construction Cost | - | Labor | - | Equipment | = | Total Material Cost | Rapidly Renewable Materials (per 01360-1.03C) | | |
| Spec Section | Item | [\$] | | (Subtract from Total) [\$] | | (Subtract from Total) [\$] | | (Less Labor & Equipment) [\$] | Overall [\$] | | |
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| RAPIDLY RENEWABLE MATERIALS AS A PERCENT OF TOTAL TEMPORARY CONSTRUCTION MATERIALS COST | | | | | | | | | | | #DIV/0! |
| CERTIFIED WOOD Description of Material | | Total Construction Cost | - | Labor | - | Equipment | = | Total Material Cost | Certified Wood (per 01360-1.03D) | | |
| Spec Section | Item | [\$] | | (Subtract from Total) [\$] | | (Subtract from Total) [\$] | | (Less Labor & Equipment) [\$] | Overall [\$] | | |
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| CERTIFIED WOOD MATERIALS AS A PERCENT OF TOTAL TEMPORARY CONSTRUCTION MATERIALS COST | | | | | | | | | | | #DIV/0! |

Company: _____
Printed Name: _____
Title: _____
Signature: _____
Date: _____

Reviewed by: _____
(Resident Engineer)

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CONTRACTOR QUALITY CONTROL PROGRAM FOR BUILDING PROJECTS

SECTION 01400

PART 1 - GENERAL

1.01 Summary

A. This Section includes the following:

1. Administrative and procedural requirements for Contractor to establish, provide, and maintain an effective Quality Control Program that complies with this Section and with Part Two of Three – General Conditions, Article VI, “Quality of Workmanship, Equipment and Materials”.
2. The Contractor must establish, provide, and maintain an effective Quality Control Program that details the methods and procedures that will be taken to assure that all materials and completed construction for all work items included under this project and as described in the Contract Documents, conform to the contract requirements, whether manufactured by the Contractor or procured from subcontractors or vendors.
3. The intent of this section is to enable the Contractor to establish a necessary level of control prior to performing work that will:
 - a. Adequately provide for the production of acceptable quality materials.
 - b. Provide sufficient information to assure both the Contractor and the Commissioner that the specification requirements will be met.
4. The Contractor shall hire and engage a third-party inspection agency to perform all Chicago Building Code Special Inspections, if required, and prepare all inspection reports, certifications, and summary letters.
5. Special inspections are required for, but are not necessarily limited to, the following:
 - a. Foundation Excavation
 - b. Placement of Structural Concrete
 - c. Placing of Reinforcing Steel
 - d. Taking of Test Specimens and Placement of Concrete
 - e. Structural Steel and Field Welding
 - f. High Strength Bolted Connections
 - g. Embeds in Structural Concrete
 - h. Welding of Steel Deck
 - i. Fire Proofing
 - j. Grouting
 - k. Masonry
 - l. Coatings
 - m. Electrical Testing
 - n. Mechanical Testing

6. Specific quality control requirements for individual construction activities and/or materials are specified in the Sections pertaining to those activities and/or materials.
7. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
8. Specified tests, inspections, and related actions are to be considered the minimum requirement, and thus do not limit the Contractor's quality control procedures to affirm compliance with the Contract Document requirements.
9. Contractor is required to provide any and all quality control services required by the Contract Documents, permit requirements, and any authority having jurisdiction.
10. The requirements for the Contractor's Quality Control Program contained in this section are in addition to and separate from the acceptance testing requirements stated in Part Three of Three - Technical Specifications. Acceptance testing requirements will be as specified in the individual technical specifications.
11. The term-"Quality Control"-used throughout the Technical Specification Sections included in Part Three of Three – Technical Specifications shall refer to Contractor's obligation to ensure that all workmanship, equipment, and materials as required per the Section is provided/performed with strict adherence to the Contract Documents and the Contractor's Quality Control Program.
12. Approval of the Quality Control Program is required prior to the start of construction. The Commissioner reserves the right to require changes in the Quality Control Program and operations as necessary, including removal of personnel, to ensure the specified quality of work. All of the Contractor's Quality Control personnel shall be subject to approval of the Commissioner. The Commissioner may require the removal and replacement of any individual for non-compliance with quality requirements specified in the contract.
13. If a conflict is discovered in the specifications and drawings, the most stringent requirement will be applied, as determined by the Commissioner.
14. Mock-Up
 - a. Contribute to the Project Mock-Up. The Mock-Up is described in the Technical Specifications and or the Plans.
 - b. Construction of Mock-Up components will be ongoing and in sequence as trades arrive onsite.
 - c. Obtain written approval from the Architect of Record for each Mock-Up sequence.
 - d. The Mock-Up shall be protected by the Contractor and shall stay undisturbed for project duration.
 - e. Construct the Mock-Up under the supervision of the Contractor in sequence.
 - f. Utilize the supervisor and workmen approved for each component.
 - g. Notify the Commissioner one week in advance of the time each component and connection to abutting component will be available for review and testing.
 - h. Provide environmentally conditioned enclosure of the Project Mock-Up as required by the Technical Specifications
 - i. Removal: the Contractor shall completely remove and or de-construct the Mock-Up when directed by the Commissioner.

1.02 DEFINITIONS

- A. Quality Control (QC) Program: The Contractor's system to manage, control, and document their own, their supplier's, and their subcontractor's activities and materials to comply with the Contract Documents.

- B. Quality Assurance Program: The procedures by which the Commissioner ensures the QC Program is being executed in a manner compliant with the Contract Documents.
- C. Quality Assurance Manager: The Commissioner representative who is responsible for assuring the Contractor's work and Quality Control Program adhere to the contract's specifications.
- D. Resident Engineer: The Commissioner representative who is the Contractor's point of contact for this Contract.
- E. Quality Assurance Materials Testing (QAMT): The Independent Testing Laboratory hired by the Commissioner to verify the Contractor's testing procedures are in accordance with the Technical Specifications. The QAMT is managed and scheduled by the Quality Assurance Manager and Resident Engineer.
- F. Mock-ups: Full-size, physical example of assemblies to illustrate finishes and materials. Mock-ups are used to verify selections made under sample submittals, to demonstrate aesthetic effects or details and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not samples. Mock-ups establish the standard by which the Work will be judged. Mock-ups supersede samples in the approval and acceptance of the Work.
- G. Definable Feature of Work (DFOW): A task or set of tasks that are separate and distinct from other tasks and have separate control requirements. As a minimum, each section of the specification can be considered as a DFOW. However, there may be more than one definable feature under a section of the specifications.
- H. Qualified Person: means one who must have a recognized degree, certificate, etc., or extensive experience and ability to provide specific inspection and testing functions for different definable features of work.

1.03 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.
- B. American Society For Testing And Materials (ASTM)
 - 1. ASTM C 1077 (Latest Edition) Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation
 - 2. ASTM D 3666 (Latest Edition) Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials
 - 3. ASTM D 3740 (Latest Edition) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
 - 4. ASTM E 329 (Latest Edition) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction
 - 5. ASTM E 543 (Latest Edition) Agencies Performing Nondestructive Testing
- C. American Institute of Steel Construction (AISC)
 - 1. ANSI/AISC 360 Specification for Structural Steel Buildings
- D. American National Standards Institute (ANSI) / American Welding Society (AWS)

1. ANSI/AWS D1.1 (2008) Structural Welding Code - Steel

1.04 SUBMITTALS

- A. Submit the following in accordance with the General Conditions, Article XI, "Shop Drawings, Product Data and Samples".
 - 1. Action Submittals
 - a. Quality Control (QC) Program.
- B. Submit a Quality Control Program for review within (15) days after Notice to Proceed. The Quality Control Program shall include a preliminary list of definable features of work. This list will evolve as work progresses and will cover all work required during the project.
- C. Submit qualification data for Contractor's quality control personnel.
- D. Submit qualification data for Contractor's testing agency.

1.05 DESCRIPTION OF QUALITY CONTROL PROGRAM

- A. General Description. The Contractors Quality Control Program will ensure conformance to applicable specifications and plans with respect to materials, workmanship, construction, finish, and functional performance. The Quality Control Program will include daily inspections and testing required by the technical specifications.
- B. Approval of the Quality Control Program is required prior to the start of work.
- C. Quality Control Program. The Contractor must describe the Quality Control Program in a written document which will be reviewed and approved by the Commissioner prior to the start of any production, construction, or off-site fabrication.

The Quality Control Program will be organized to address, as a minimum, the following items:

- 1. Quality control personnel and qualifications
- 2. Submittals schedule
- 3. Pre-activity meetings schedule for each DFOV
- 4. Inspection requirements and quality control testing required for each specification section
- 5. Examples of Contractors' documentation for daily quality control and for non-conformance if specifications are not met.

1.06 QUALITY CONTROL ORGANIZATION

- A. An organizational chart must be submitted and will identify all quality control personnel by name and function, and must indicate the total staff required to implement all elements of the Quality Control Program. Each of the personnel identified to provide oversight of the project's quality control must be a qualified person and are subject to the approval of the Commissioner.
- B. Payment will not be made for any materials installed without Quality Control inspection by the Contractor. The Commissioner may withhold, or deny payment for an inspected item, if in the Commissioner's opinion, the Contractor's Quality Control Program is not functioning as required by the technical specification.

1.07 SUBMITTALS SCHEDULE

- A. The Contractor must submit a detailed listing of all submittals (e.g., mix designs, material certifications) and Shop Drawings prior to the start of work as required by the technical specifications. The listing can be developed in a spreadsheet format and must include:
 - 1. Specification item number;
 - 2. Item description;
 - 3. Description of submittal;
 - 4. Specification paragraph requiring submittal;
 - 5. Scheduled date of submittal;
 - 6. Submittal approval level; and
 - 7. Contractor/subcontractor responsible.
- B. This spreadsheet must be produced and maintained by the Contractor's Project Manager on a weekly basis and will be reviewed by the Contractor prior to submission to the Commissioner.

1.08 INSPECTION REQUIREMENTS

- A. Quality control inspection functions included in the Contractor's Quality Control Program will be organized to provide daily inspections by the Contractor's qualified personnel or by an outside organization provided by the Contractor, as detailed below. All such inspections must be documented by the Contractor as specified herein.
- B. Inspections will be performed daily to ensure continuing compliance with contract requirements until completion of the particular feature of work.

1.09 QUALITY CONTROL TESTING PLAN

- A. As a part of the overall Quality Control Program, the Contractor must implement a quality control testing plan, as required by the technical specifications. The testing plan will include the minimum tests and test frequencies required by each technical specification item, as well as any additional quality control tests that the Contractor deems necessary to adequately control production and/or construction processes.
- B. The testing plan can be developed in a spreadsheet fashion and will, as a minimum, include the following:
 - 1. Specification item number (e.g., Section 03310);
 - 2. Item description (e.g., Structural Concrete);
 - 3. Test type (e.g., air content, slump, compressive strength);
 - 4. Test standard (e.g., ASTM or AASHTO test number, as applicable);
 - 5. Test frequency (e.g., as required by technical specifications or minimum frequency when requirements are not stated);
 - 6. Responsibility (e.g., plant technician); and
 - 7. Control requirements (e.g., target, permissible deviations).
- C. The testing plan will contain a statistically-based procedure of random sampling for acquiring test samples in accordance with ASTM D 3665. The Commissioner will be given access to witness all quality control sampling and testing.
- D. All quality control test results must be documented by the Contractor as specified herein.

E. Testing:

1. Independent Testing Laboratory: When tests are required, the Contractor will employ and retain a nationally recognized, corporately and financially independent testing organization that can function as an unbiased testing authority. The testing organization must be professionally independent of manufacturers, suppliers, and installers of equipment, or systems evaluated by the testing organization. The testing organization will be contracted by the Contractor to perform the required tests.
2. The Commissioner retains the right to check laboratory equipment in the proposed laboratory and the laboratory technician's qualifications, testing procedures, techniques, and other items pertinent to testing, for compliance with the standards set forth in the Contract Documents.
3. Test Results: Cite applicable Contract requirements, tests or analytical procedures used. Provide actual results and include a statement that the item tested or analyzed conforms or fails to conform to specified requirements. If the item fails to conform, notify the CM Quality Assurance Manager immediately. Conspicuously stamp the cover sheet for each report in large red letters "CONFORMS" or "DOES NOT CONFORM" to the specification requirements, whichever is applicable. A testing laboratory representative authorized to sign certified test reports shall sign test results. Furnish the signed reports, certifications, and other documentation to the Construction Manager via the Contractor. Furnish a summary report of field tests at the end of each month.
4. All equipment used during testing must be calibrated and certified within one year of use.

F. Pre-Activity Meeting:

1. Notify the Quality Assurance Manager and Resident Engineer, at least two (2) work days in advance of each DFO. This meeting shall be conducted by the Contractor and attended by the Contractor's personnel responsible for the definable feature. Document the results of the meeting actions. As a minimum the following should be covered during the pre-activity meeting and prior to beginning work on each definable feature of work:
 - a. Review each paragraph of the applicable specification sections;
 - b. Review the Contract drawings;
 - c. Verify that appropriate shop drawings and submittals for materials and equipment have been submitted and approved. Verify receipt of approved factory test results, when required;
 - d. Establish control to be utilized to assure work complies with the contract plans and specifications.
 - e. Review the testing plan and ensure that provisions have been made to provide the required QC testing;
 - f. Examine the work area to ensure that the required preliminary work has been completed;
 - g. Examine the required materials, equipment and sample work to ensure that they are on hand and conform to the approved shop drawings and submitted data and submit the corresponding RFIMs to the Resident Engineer;
 - h. Discuss construction methods, construction tolerances, workmanship standards, and the approach that will be used to provide quality construction by planning ahead and identifying potential problems for each definable feature of work; and

- i. Review the safety plan and appropriate activity hazard analysis to ensure that applicable safety requirements are met, and that the required Material Safety Data Sheets (MSDS) are submitted.
2. Notification of Control for Off-Site Work
- a. On determination by Commissioner that an item will require surveillance at the point of production, manufacture, or shipment, the Contractor will be notified, in writing, of such determination. The Contractor shall furnish to the Commissioner three (3) copies of all purchase orders or subcontracts, for all tiers of subcontractors or suppliers for each item. In addition, copies of manufacturer or fabricator's documented quality control operations, tests, and inspections shall be made available to the Commissioner at the point of production, manufacture, or shipment. The Contractor shall notify the Commissioner at least two (2) weeks prior to the start of the preparatory and initial phases.

1.10 DOCUMENTATION

- A. The Contractor must maintain current quality control records of all inspections and tests performed under the Quality Control Program. These records must include factual evidence that the required inspections or tests have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, causes for rejection, etc.; proposed remedial action; and corrective actions taken.
- B. These records must cover both conforming and defective or deficient features, and must include a statement that all supplies and materials incorporated in the work are in full compliance with the Contract Documents. Legible copies of these records must be furnished to the Commissioner daily, at a time established by the Commissioner at the pre-construction conference. The records must cover all work placed subsequent to the previously furnished records and must be verified and signed by each inspector.
- C. Specific Contractor quality control records required for the contract must include, but are not necessarily limited to, the following records:
 - 1. Daily Inspection Reports. Each Contractor quality control technician must maintain a daily log of all inspections performed for both Contractor and subcontractor operations on a form acceptable to the Commissioner. These technician's daily reports must provide factual evidence that continuous quality control inspections have been performed and will, as a minimum, include the following:
 - a. Technical specification item number and description;
 - b. Compliance with approved submittals;
 - c. Proper storage of materials and equipment;
 - d. Proper operation of all equipment;
 - e. Adherence to plans and technical specifications – site specific drawings will be attached and hi-lighted for reference;
 - f. Review of quality control tests.
- D. The daily inspection reports must identify inspections conducted, results of inspections, location and nature of defects found, causes for rejection, and remedial or corrective actions taken or proposed.

- E. The daily inspection reports will be signed by the responsible quality control technician. The Commissioner will be provided at least one legible original copy of each daily inspection reports, by 10:00 a.m. CST on the work day following the day of record.
 - 1. Daily Test Reports. The Contractor must be responsible for establishing a system which will record all quality control test results. Daily test reports must document the following information:
 - a. Technical specification item number and description;
 - b. Test designation;
 - c. Location;
 - d. Date and time of test;
 - e. Control requirements;
 - f. Test results;
 - g. Causes for rejection;
 - h. Recommended remedial actions; and
 - i. Retests.
- F. Non-conformance reports (NCR's) will be generated and submitted for any work / materials that do not comply with the specifications and approved submittals or as directed by the Commissioner. These reports will be on forms acceptable to the Commissioner and will include a description of the non-conformance, what actions the contractor took to correct the non-conformance, and what steps were taken to insure that the non-conformance will not happen again.

1.11 CORRECTIVE ACTION REQUIREMENTS

- A. The Quality Control Program will indicate the appropriate action to be taken when a process does not confirm and detail what action will be taken to bring the process into control. The requirements for corrective action will include both general requirements for operation of the Quality Control Program as a whole, and for individual items of work contained in the technical specifications.

1.12 SURVEILLANCE BY THE COMMISSIONER

- A. All items of material and equipment will be subject to surveillance by the Commissioner at the point of production, manufacture or shipment to determine if the Contractor, producer, manufacturer or shipper maintains an adequate quality control system in conformance with the requirements detailed herein and the applicable technical specifications and plans. In addition, all items of materials, equipment and work in place will be subject to surveillance by the Commissioner at the site for the same purpose.
- B. Surveillance by the Commissioner does not relieve the Contractor of performing quality control inspections of either on-site or off-site Contractor's or subcontractor's work.
- C. No videotaping or recording of any personnel will be permitted unless written permission is given in advance by all parties to be recorded.

1.13 NONCOMPLIANCE

- A. The Commissioner will notify the Contractor of any noncompliance with any of the foregoing requirements. The Contractor must, after receipt of such notice, immediately take corrective action. Any notice, when delivered by the Commissioner or its

authorized representative to the Contractor or its authorized representative at the site of the work, must be considered sufficient notice.

- B. In cases where quality control activities do not comply with either the Contractor's Quality Control Program or the contract provisions, or where the Contractor fails to properly operate and maintain an effective Quality Control Program, as determined by the Commissioner, the Commissioner may:
 - 1. Order the Contractor in writing to replace ineffective or unqualified quality control personnel or subcontractors within 24 hours after receipt of such order.
 - 2. Order the Contractor to stop operations until appropriate corrective actions are taken.
 - 3. Withhold progress payments in the event of Contractor failure to take corrective actions within the specified time.

1.14 NOTIFICATION OF CHANGES

- A. The Contractor must notify the Commissioner, in writing, of any proposed change, including changes in the QC organization personnel, a minimum of seven (7) calendar days prior to a proposed change. Proposed changes shall be subject to acceptance by the Commissioner.

PART 2 - PRODUCTS

2.01 NOT APPLICABLE

PART 3 - EXECUTION

3.01 NOT APPLICABLE

PART 4 - METHOD OF MEASUREMENT

4.01 NOT APPLICABLE

PART 5 - BASIS OF PAYMENT

- 5.01 The preparation of a Quality Control Program and its implementation, including any corrective measures that may be required to be carried out by the Contractor to bring items of work into compliance with the requirements of the Quality Control Program and the technical specifications will not be paid for separately but will be included in the total Contract price.

END OF SECTION 01400

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TRAFFIC CONTROL

SECTION 01502

PART 1 DESCRIPTION

1.01 GENERAL

- A. The governing factor in the execution and staging of construction for this Project is to provide the motoring public with the safest possible travel conditions. The Contractor must furnish and install all Traffic Control as shown on the Drawings and as specified herein, including but not limited to the following:
1. The Work under this Section includes the furnishing, installation, maintenance and removal of all traffic control and protection, including but not limited to signs, message boards, arrow boards, removal of temporary pavement markings used for traffic control, energy attenuating systems, barricades, flagmen, warning lights, sandbags and all appurtenances used for the purpose of safely regulating, warning or guiding traffic and pedestrians through the construction zone and all contractor haul routes as required by the Drawings, Specifications and/or as directed by the Commissioner.
 2. The Work under this Section also includes placement and removal of temporary concrete barrier wall, and the relocation of temporary concrete barrier wall, as shown on the plans and as directed by the Commissioner.
 3. The Work under this Section also includes the design, installation and removal of temporary scaffolding protection system over the existing parking toll booths #40, #41, #42, #43, and #44 during the stage construction.

1.02 RELATED WORK

1.03 REFERENCES

- A. Illinois Department of Transportation - Standard Specifications for Road and Bridge Construction, latest edition:
- B. IDOT Standard Specifications for Road and Bridge Construction.
- C. IDOT Manual on Uniform Traffic Control Devices for Streets and Highways.
- D. City of Chicago, Department of Streets and Sanitation.
- E. IDOT Standard Specifications for Traffic Control Items.

1.04 SUBMITTALS

- A. Submit the following:
1. Traffic Control Plan:
 - a. The Contractor must submit a traffic control plan for each maintenance of traffic stage.
 - b. The Contractor must submit all requests and obtain all approvals for temporary lane closures from the Commissioner. All requests must be submitted a minimum of 72 hours in advance of the proposed road closures:
 - (1) No lane closures will be permitted during actual or predicted snow removal conditions.
 2. Construction schedule for Traffic Control Plan.
 3. Temporary Guide Signs to and from Parking Garage.
 4. Design drawings for proposed scaffolding protection system over the existing parking toll booths #40, #41, #42, #43, and #44 for review and approval by Commissioner and Standard Parking.

1.05 QUALITY CONTROL

- A. Installation must be performed only by a qualified installer. The term qualified means experienced in performing the Work required by this Section on Projects of comparable scope, size and complexity. The Contractor must be able to demonstrate to the satisfaction of the Commissioner and Chief Procurement Officer that it and/or any subcontractors performing such Work have the qualifications, experience and, if applicable, licenses and permits to perform the Work in accordance with the terms and conditions of this Contract. The Contractor must submit evidence of such qualifications, licenses and permits upon request by the Commissioner:
1. The Contractor must provide a manned telephone on a continuous 24-hour-a day basis to receive notification of any deficiencies regarding traffic control and protection to correct any such deficiencies.
- B. Perform Work in accordance with the latest edition, of the appropriate divisions, of the following:
1. IDOT Standard Specifications for Road and Bridge Construction.
 2. IDOT Manual on Uniform Traffic Control Devices for Streets and Highways.
 3. City of Chicago, Department of Streets and Sanitation.
 4. IDOT Standard Specifications for Traffic Control Items.

1.06 SPECIAL REQUIREMENTS

- A. Job Conditions – General:

1. The Contractor's vehicles must always move with and not across or against the flow of traffic, separated from traffic by temporary precast concrete barriers if required.
2. Vehicles must enter or leave work areas in a manner, which will not be hazardous to or interfere with normal traffic. Vehicles must not park or stop except within the designated work areas.
3. Personal vehicles will not be permitted to park within the right of way. The Contractor's personnel will be prohibited from crossing the roadway, and all pedestrian movements will be limited to within barricaded areas.

PART 2 MATERIALS AND EQUIPMENT

2.01 MATERIALS

A. Traffic Control Devices:

1. All temporary concrete barrier wall, signs, signals, markings, reflectorized safety posts, portable barricades, portable flashers, arrow boards, portable message sign boards, flagmen, or other devices that are used for the purpose of regulating, warning and guiding expressway and crossroad traffic must conform to the applicable portions of the State of Illinois "Manual on Uniform Traffic Control Devices for Streets and Highways," and "Standard Specifications for Traffic Control Items."
2. Striping obliterating tape to void pavement marking will be black, non-reflective and self adhering.
3. No waiving of these requirements will be allowed without the prior written approval of the Commissioner.
4. Before beginning construction if the Contractor intends to use any signs not shown in the manual or any modification of standards shown in the manual, the Contractor must submit the details of the change and the use of the modified signs.

PART 3 CONSTRUCTION METHODS AND INSTALLATION

3.01 GENERAL

- A. All traffic control and protection must conform to the requirements of Section 701 Work Zone Traffic Control and Protection, IDOT Standard Specifications for Road and Bridge Construction, latest edition.
- B. The cones or barricades, lights, and all warning signs, as required by IDOT, which will be required whenever a lane of the traveled way is closed to traffic, will be furnished and maintained by the Contractor. The Contractor will furnish and maintain all additional barricades, signs, warning lights, cones and flagmen, which is the opinion of the Commissioner and IDOT, are necessary to safeguard

the traffic and protect the work site. The Contractor will be responsible for the traffic protection for the duration of this Contract.

- C. Placement of all signs and barricades must proceed in the direction of flow of traffic. Removal of all signs and barricades must start at the end of the construction areas and proceed toward oncoming traffic unless otherwise directed by the Commissioner. The Contractor will be required to cover all traffic control devices which may be inconsistent with traffic patterns during all changes.

3.02 FURNISH

- A. The Contractor's manner of prosecuting the work or minor revisions or modifications in the construction operations may require traffic control to not be installed in accordance with a standard detail and device. In such cases, the standard details and devices proposed to be used must be submitted to and approved by the Commissioner in advance of the change in traffic control.
- B. The Contractor will be required to furnish all traffic control devices unless specifically stated otherwise. Whenever the operation of the Contractor endangers or interferes with vehicular traffic, as determined by the Commissioner, the Contractor will furnish all additional traffic control devices necessary to direct traffic and protect his workmen, at no extra cost to the Commissioner. Sand bags that are used to secure barricades and sign stands are included in this item. The Commissioner reserves the right to inspect all traffic control equipment furnished by the Contractor one week before it is used on this Contract. In addition, the Contractor must furnish additional flagmen at no cost to the Commissioner, on a continuous basis whenever construction operations encroach on traveled lanes, such as pavement marking, patching operations, etc.
- C. Portable precast units which have the New Jersey configuration and which have previously been cast meeting earlier Illinois Department of Transportation standards may be used on this Project. The units must be in good condition, without cracks or spalls, and the connecting loops must not be broken. The Contractor will be allowed to mix barrier units of previous designs in the same run with new units, provided the connecting loops are compatible and the units are of the same width so that a smooth, continuous face can be obtained. Units having designs other than the New Jersey configuration may be used with the written approval of the Commissioner.

3.03 INSTALLATION

- A. Lane closure signs and flagmen signs must be erected prior to placement of drums, barricades, and/or cones and remain erected until such time as the traffic control devices have been removed from the pavement.
- B. Construction signs referring to temporary lane closures during working hours must be removed or covered during nonworking hours.

- C. The Contractor must so arrange his operations as to keep the closing of any lane of the traveled way to a minimum.
- D. The Contractor will be responsible for the proper location, installation and arrangement of all traffic control devices used for the Project. The Commissioner will inspect the traffic control device placement before work on each stage begins, and any deficiencies will be corrected by the Contractor before starting work on that stage.
- E. Whenever operations require or indicate that a relocation of a proposed or existing traffic control device is advisable including the existing signs and barricades as determined by the Commissioner, the Contractor must remove, relocate, and erect all traffic control devices in question. After the work has been completed, the Contractor, at the Commissioner's direction, must return and erect the device in its original location.
- F. All advance warning signs for lane closures, guide signs, intermediate information signs and standard signs must be installed at a minimum mounting height of seven feet to the bottom of the sign. Signs must be installed in a manner to resist damage or knockdown in severe wind conditions and also allow ease of relocation during stage changes.
- G. The Contractor will not be permitted to erect, change or remove his barricade system without prior approval of the Commissioner. The Contractor will be required to leave and maintain all traffic control devices in place until all construction operations have been completed in each stage. The Contractor must arrange and manipulate barricade placement and schedule construction operations to permit continuous operation of all lanes designated as open to traffic unless otherwise directed by the Commissioner.
- H. The height of the barricades must be no less than three feet above the pavement or shoulder elevation. This additional protection will be considered included in the Contract, and no additional compensation will be allowed:
 - 1. At some locations it may be necessary to supplement Type II barricades with 55-gallon steel drums. The Contractor will do this upon request from the Commissioner, at no additional cost to the City.
- I. Removal of existing pavement marking and striping where required, will be by use of water blasting only.

3.04 MAINTENANCE

- A. The Contractor will be required to respond to any call from the Commissioner concerning all requests for improving or correcting traffic control devices including pavement marking tape, within one-half hour from the time of notification.
- B. In the event of severe weather conditions, the Contractor must provide additional personnel and equipment to maintain, relocate or remove all traffic control devices. In addition to general maintenance requirements throughout the day,

the Contractor must realign all traffic control devices as necessary on a daily basis. The Contractor must relocate to the proper location all traffic control devices misplaced by Subcontractor operations. After notification, relocation of devices must take place in an expeditious manner.

3.05 RELOCATE TEMPORARY CONCRETE BARRIER WALL

- A. The Contractor must relocate the temporary concrete barrier wall that was furnished and originally installed by him or her under this Contract as required in the Drawings and as directed by the Commissioner.

3.06 REMOVE

- A. The Contractor must remove all traffic control devices that were furnished, installed, and maintained by him or her under this Contract, and such devices, will remain the property of the Contractor. All traffic control devices must remain in place until specific authorization to relocate the devices is received from the Commissioner for stage changes.

3.07 TEMPORARY GUIDE SIGNS

- A. The Contractor will furnish and erect temporary guide signs at the Project for maximum public guidance through the construction area and must maintain same in good condition until completion of the Project. This will include all Temporary Guide Signs, regardless of size, to and from Parking Garage. Upon completion, the signs must be removed. The location of the signs will be determined by the Commissioner. These temporary signs must be displayed in place prior to the commencement of construction.

3.08 GENERAL CLEAN-UP

- A. All rubbish and debris resulting from the Work of this Section must be collected and disposed of as directed by the Commissioner. The Contractor must keep all public roadways, and other public right-of-ways affected by the work, clean and free from debris and dust at all times.
- B. All work areas must be left in a broom clean condition.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Traffic Control and Protection will be measured on a lump sum basis as described herein.
- B. Scaffolding protection system over the existing parking toll booths will not be measured for payment.
- C. The temporary concrete barrier walls to be furnished, installed and removed shall

be delivered to the Commissioner at the end of the project as directed by the Commissioner.

- D. When temporary concrete barrier wall is relocated within the limits of the project, the relocated barrier wall will be measured for payment in feet in place along the centerline of the barrier wall.

4.02 EXCLUSIONS

- A. Traffic Control and Protection will not include permanent signage, temporary pavement markings, permanent pavement markings, furnish/installation/removal of temporary concrete barrier wall, and relocation of temporary concrete barrier wall.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Traffic Control and Protection will be paid for on a lump sum basis. The Contractor's operations may require daily changes and multiple work area installations. These will not be measured separately but will be included in the lump sum price for Traffic Control and Protection.
- B. Scaffolding protection system over the existing parking toll booths will not be measured for payment but will be incidental to Traffic Control and Protection.
- C. Furnish, Install and Remove Temporary Concrete Barrier Wall and Relocate Temporary Concrete Barrier Wall will each be paid for at the Contract unit price per linear foot. Such payment must be full compensation for all labor, materials, tools and all incidentals necessary to complete these items as specified herein.
- D. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|---|-------|
| 01502-5.01 | TRAFFIC CONTROL AND PROTECTION | L SUM |
| 01502-5.02 | FURNISH, INSTALL, AND REMOVE TEMPORARY CONCRETE BARRIER | FOOT |
| 01502-5.03 | RELOCATE TEMPORARY CONCRETE BARRIER | FOOT |

END OF SECTION 01502

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IMPACT ATTENUATOR

SECTION 01502A

PART 1 DESCRIPTION

1.01 GENERAL

- A. This work shall consist of furnishing, installing, maintaining, and removing temporary impact attenuators of the category and test level specified.

PART 2 MATERIALS

- 2.01 A. Materials shall be according to the impact attenuator manufacturer's and the following:

| Item | Article/Section |
|--|---------------------------|
| (a) Fine Aggregate (Note 1) | 1003.01 |
| (b) Steel Posts, Structural Shapes, and Plates | 1006.04 |
| (c) Rail Elements, End Section Plates, and Splice Plates | 1006.25 |
| (d) Bolts, Nuts, Washers and Hardware | 1006.25 |
| (e) Hollow Structural Tubing | 1006.27(b) |
| (f) Wood Posts and Wood Blockouts..... | 1007.01, 1007.02, 1007.06 |
| (g) Preservative Treatment | 1007.12 |
| (h) Packaged Rapid Hardening Mortar | 1018.01 |

Note 1. Fine aggregate shall be FA 1 or FA 2, Class A quality. The sand shall be unbagged and shall have a maximum moisture content of five percent.

PART 3 CONSTRUCTION METHODS

3.01 PAVEMENT REMOVAL

- A. General: Impact Attenuators shall meet the testing criteria contained in either the National Cooperative Highway Research Program (NCHRP) Report 350 or MASH and shall be on the Department's approved list.—
- B. Installation: Impact attenuators shall be installed according to the manufacturer's specifications and include all necessary transitions between the impact attenuator and the item to which it is attached. Regrading of slopes or approaches for the installation shall be as shown on the plans. Attenuator bases, when required by the manufacturer, shall be constructed on a prepared subgrade according to the manufacturer's specifications. The surface of the base shall be slightly sloped or crowned to facilitate drainage. Attenuator bases, when required by the manufacturer, shall be constructed on a prepared subgrade according to the manufacturer's specifications. The surface of the base shall be slightly sloped or crowned to facilitate drainage.

- C. Markings: Sand module impact attenuators shall be striped with alternating reflectorized Type AA or Type AP fluorescent orange and reflectorized white horizontal, circumferential stripes. There shall be at least two of each stripe on each module. Other types of impact attenuators shall have a terminal marker applied to their nose and reflectors along their sides.
- D. Maintenance: All maintenance of the impact attenuators shall be the responsibility of the Contractor until removal is directed by the Commissioner.
- E. Relocate: When relocation of temporary impact attenuators is specified, they shall be removed, relocated and reinstalled at the new location. The reinstallation requirements shall be the same as those for a new installation.
- F. Removal: When the Engineer determines the temporary impact attenuators are no longer required, the installation shall be dismantled with all hardware becoming the property of the Contractor. Surplus material shall be disposed of according to Article 202.03. Anti-freeze, when present, shall be disposed of/recycled according to local ordinances. When impact attenuators have been anchored to the pavement, the anchor holes shall be repaired with rapid set mortar; only enough water to permit placement and consolidation by rodding shall be used and the material shall be struck-off flush.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. This work will be measured for payment as each, where each is defined as one complete installation.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Payment will be will be paid for at the contract unit price per each for IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW) TEST LEVEL 2 and IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW) TEST LEVEL 2.
- B. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--|------|
| 01502A-5.01 | IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW) TEST LEVEL 2 | EACH |
| 01502A-5.02 | IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW) TEST LEVEL 2 | EACH |

END OF SECTION 01502A

CONSTRUCTION WASTE MANAGEMENT

SECTION 01524

PART 1 GENERAL

1.01 SUMMARY

- A. The disposal of non-hazardous construction waste generated by work pertaining to this Contract must be in accordance with Section 11-4-1905 of the Chicago Municipal Code (“Code”) with exceptions as noted in this Specification Section.
- B. This Section includes use and tracking requirements and procedures for compliance with certain sustainable design guidelines based on the Chicago Department of Aviation Sustainable Airport Manual (SAM), latest edition. Reference can be found at www.airportsgoinggreen.org.
- C. This Section includes tracking requirements and forms necessary for compliance with this Specification and in accordance with the requirements of Credit 5.3 of the SAM.

1.02 RELATED DOCUMENTS

- A. Section 11-4-1905, “Construction or Demolition Site Waste Recycling”, of the Chicago Municipal Code. (attached at end of this Specification Section)
- B. Section 13-32-125, “Construction Site Cleanliness”, of the Chicago Municipal Code.

1.03 PERFORMANCE REQUIREMENTS

- A. The Contractor must adhere to Section 11-4-1905 of the City of Chicago Municipal Code with exceptions as noted in this Specification Section.

1.04 SUBMITTALS

- A. The Contractor must transmit the submittals described below to the Commissioner and to the following email address: samdocs@cityofchicago.org.
- B. The Contractor must submit documentation pursuant to 11-4-1905 of the Code with the following additions:
 - 1. The City of Chicago C&D Debris Recycling Compliance Form (attached at the end of this Specification) must be submitted monthly with the Contractor’s Application for Payment. Do not complete beyond Line D (p.3) under the “Calculation of Recycling Percentage” of the C&D Debris Recycling Compliance Form and do not include the “Election Form and Contractor Affidavit” (p.4).

2. The Contractor must submit a Waste Management Plan and a preconstruction estimate of the C&D debris quantities prior to the Contractor's initial Application for Payment for Mobilization.
 3. The Contractor must submit a post-construction City of Chicago C&D Debris Recycling Form with the Contractor's Application for Reduction of Retainage from 5% to 3%.
- C. Waste Management Plan: The Plan must be developed by the Contractor and must be submitted to the Commissioner for review with the Contractors Application for Payment for Mobilization. The Plan must include the following sections, at a minimum:
1. General: Provide an overall strategy for managing the C&D debris associated with the Project.
 2. Waste Identification: Indicate anticipated types and quantities by weight of demolition, site-clearing and construction waste generated by the Project. Include estimated quantities by weight and assumptions for estimates.
 3. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total weight of each type of waste, final disposition for each waste type, and handling and transportation procedures:
 - a. Salvaged Materials: For each type of material that is salvaged or recycled, describe the type of material, source, estimated quantity, and receiving entity. Include names, addresses, and telephone numbers for the receiving individuals and/or organizations.
 - b. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
 - c. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project site where materials separation will be located.
 - d. Stockpiles: For on-airport stockpiles, indicate location(s) and proposed materials to be received at each stockpile location.
 4. Preconstruction C&D Quantities Estimate: For every material recycled, salvaged, or disposed, estimate the quantity of each that is anticipated to be reused on-site, recycled off-site, or disposed off-site. Use the City of Chicago C&D Debris Recycling Form as a template (attached at the end of this Specification).
- D. Construction Waste Management Submittal Transmittal: When submitting the documentation to the Commissioner as required in Paragraphs 1.04B and 1.04C, the Contractor must complete the Submittal Transmittal Cover Sheet attached at the end of this Specification section and attach this with the appropriate submittal.

- E. All Chicago Department of Aviation (CDA) Projects must submit the documents outlined in Paragraph 1.04B to the Commissioner even if exempted by Section 11-4-1905 (3) of the Municipal Code.

1.05 QUALITY ASSURANCE

- A. Contractor Qualifications: Construction waste management work must be performed only by a qualified Contractor. The term “qualified” means experienced in performing the Work required by this Section. The qualified Contractor must have experience on Projects similar in size and scope to this Project. The Contractor will submit evidence of such qualifications (e.g. Project list, timeframe, amount of materials recycled, construction cost) upon request by the Commissioner.
- B. Regulatory Requirements: In addition to City Ordinances regarding waste recycling described herein, the Contractor will comply with waste transport and disposal regulations of authorities (e.g. state, local, or federal) having jurisdiction.

1.06 SPECIAL REQUIREMENTS

(Not Used)

PART 2 PRODUCTS

(Not Used)

PART 3 EXECUTION

3.01 PLAN IMPLEMENTATION

- A. General: Implement Waste Management Plan as approved by the Commissioner. Provide means of handling, containers, storage areas, signage transportation, and other items to facilitate implementation of the Waste Management Plan for the duration of the Contract.
- B. Waste Management Coordinator: Assign a Waste Management Coordinator to be a single point of contact responsible for implementation, monitoring, and reporting of the waste management activities. The Coordinator must be present for the duration of the Contract.
- C. Training: The Contractor is responsible for training workers, subcontractors, and suppliers on proper waste management procedures as applicable to this Contract. Distribute Waste Management Plan to all subcontractors and suppliers when Contract work begins.
- D. Site Access and Temporary Controls: Waste management operations must be conducted in a manner to minimally impact airport and public roadways, streets, walks, and adjacent occupied facilities. A site will be designated and identified as such for the classification of materials to be salvaged, recycled, reused, sold, donated, or disposed.

3.02 DISPOSAL OF WASTE

- A. General: Except for materials to be recovered, recycled, or reused, all other materials will be removed from the Project site. The Contractor will legally dispose of these remaining materials in a legal manner:
 - 1. Unless otherwise specified, do not allow waste materials to accumulate on-site.
 - 2. Remove and transport C&D debris in a manner that will prevent spillage and all trucks must be tarped or covered at all times during transport en route to their ultimate destination.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Construction Waste Management will not be measured separately for payment, but will be considered included in the overall Contract.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. All costs associated with meeting these requirements are included in the overall Contract. No additional time or monies will be granted to the Contractor for compliance with these requirements and any associated regulations.

END OF SECTION 01524

CHICAGO DEPARTMENT OF AVIATION

01524 CONSTRUCTION WASTE MANAGEMENT

SUBMITTAL TRANSMITTAL COVER SHEET

Date: _____
Project: _____
WBS No. _____

Attention: Construction Manager

To: O'Hare Modernization Program and via email to:
10501 W. Zemke Blvd. samdocs@cityofchicago.org
Chicago, Illinois 60666

The following form(s) are submitted to comply with the requirements of the 01524 Construction Waste Management Specification Section (Check one):

- Waste Management Plan and Pre-Construction C & D Debris Estimate
- Monthly C & D Debris Recycling Compliance Form
- Final C & D Debris Recycling Compliance Form

| | |
|---------------|--|
| From: | |
| Company: | |
| Printed Name: | |
| Title: | |
| Signature: | |
| Date: | |

| | |
|--------------|-------------------|
| Reviewed by: | |
| | Resident Engineer |

Note: These submittal requirements are in addition to the requirements put forth by the City of Chicago as outlined in Section 11-4-1905 of the Chicago Municipal Code.

responsibilities under this chapter and to coordinate the activities of the department of streets and sanitation with the department of the environment.

(Added Coun. J. 12-11-91, p. 10978)

11-4-1880 Fee-for-service contracts.

Wherever recycling services are not to be directly provided by the department of streets and sanitation to households in low-density dwellings, the department shall adopt regulations governing the issuance of fee-for-service contracts to provide for-profit and not-for-profit recycling operations. Such regulations shall, at a minimum, include criteria for providing diversion credits, tax credits and any other forms of financial assistance deemed appropriate by the department.

(Prior code § 99.1-7; Added Coun. J. 2-28-90, p. 12605; Amend 12-11-91, p. 10978)

11-4-1890 Promotion of economic development—Markets for recycled materials.

In order to promote economic development within the city and to encourage markets for recycled materials, the city department of planning and development in coordination with the department of the environment and other city departments, as appropriate, shall implement programs to build demand for recycled products among Chicago businesses, residents and local governments; to build markets for recycled materials by attracting to the city manufacturers that use recycled material as raw material; and to assist businesses in developing capacity to use recycled material in place of virgin material.

(Prior code § 99.1-8; Added Coun. J. 2-28-90, p. 12605; Amend 12-11-91, p. 10978)

11-4-1900 Promotion of recycling.

(a) On or before July 1, 1990, the department of planning and development in cooperation with the department of the environment and the department of streets and sanitation, shall develop and implement programs for issuing grants and loans to promote recycling in the City of Chicago.

(b) The department of planning and development shall submit an annual report to the mayor and the city council concerning the implementation of this section, as well as programs to build demand for recycled products among Chicago businesses, residents and local governments, programs for attracting to the city manufacturers that use recycled material as raw material, and programs to assist businesses in developing capacity to use recycled material in place of virgin material. Such report shall be available on September 1st of each year.

(Prior code § 99.1-9; Added Coun. J. 2-28-90, p. 12605; Amend 12-11-91, p. 10978)

ARTICLE XIV. REPROCESSABLE CONSTRUCTION/DEMOLITION MATERIAL

11-4-1905 Construction or demolition site waste recycling.

(1) For purposes of this section, the term[s]:

- (a) "Contractor" shall have the meaning of general contractor as defined in Section 4-36-010 and shall also include any person engaged in the demolition or wrecking of a structure for which a permit is required under Section 13-32-230.
- (b) "Construction and demolition debris" has the meaning ascribed to the term in Section 11-4-120 of this Code, but does not include materials that are contaminated by lead, asbestos, or other hazardous materials in such a way as to render recycling illegal or impossible.

(2) Any project subject to this section shall be required to recycle construction or demolition waste produced on site as part of construction or demolition activities by meeting the following requirements:

- (a) The contractor on a project that is issued a permit on or after January 1, 2006, but before January 1, 2007, shall cause to be recycled at least 25 percent of construction and demolition debris, as measured by weight, produced on site.

- (b) The contractor on a project that is issued a permit on or after January 1, 2007, shall cause to be recycled at least 50 percent of construction and demolition debris, as measured by weight, produced on site.
- (3) The following projects are subject to this section:
- (a) Residential projects with four or more units that involve the construction of a new structure or that involve buildings or structures that have been substantially rehabilitated, as determined by the commissioner of the department of buildings.
- (b) Any construction that will require a certificate of occupancy to issue from the department of buildings.
- (c) Any building demolition, other than projects for which the total cost is less than \$10,000.00.

A project is exempt from this section if only a plumbing permit, only an electrical permit or only a mechanical permit is required.

(4) The contractor shall submit documentation as described herein to the department of the environment to verify compliance with this section. Projects meeting the requirements of (2)(a) or (2)(b) of this section shall submit documentation prior to the issuance of a certificate of occupancy by the department of buildings. Projects meeting the requirements of (2)(c) of this section shall submit documentation within 60 days of completion of a project. Documentation shall be in a form prescribed by the commissioner of the department of environment and consist of notarized affidavits from the contractor and the waste hauler for the project certifying that the project fully complies with subsection (1) or, in the case of an application for a certificate of occupancy for a portion of a partially completed project, that the project is in compliance with subsection (1) at the time the application is made. The department of environment will certify to the department of buildings and the department of construction and permits that the contractor has complied with this ordinance if: (i) the contractor has met the stated recycling goals; or (ii) the contractor has been fined for that project under subsection (6),

and the fine has been paid in full. In addition, a contractor must comply with all reasonable requests for information and documentation made by the department pursuant to an audit to monitor compliance with this section. Whenever any affiant knowingly and falsely states that a project has met the requirements of this section, or whenever any contractor knowingly submits an affidavit with such a false statement, or whenever any person knowingly fails to comply with a reasonable request made pursuant to an audit under this section, such action will be grounds to deny or revoke the issuance of a certificate of occupancy, will subject the person to a fine of \$200.00 to \$500.00, and will subject the person to additional penalties and fines pursuant to this Code or state law including, but not limited to, the revocation or suspension of an affiant's or contractor's general contractor's license pursuant to Chapter 4-36.

(5) The commissioner of the department of environment, the commissioner of the department of buildings, the commissioner of the department of streets and sanitation or the executive director of the department of construction and permits may promulgate such rules and regulations as necessary to implement the provisions of this section.

(6) Projects that fail to meet the recycling percentages identified in subsection (1) shall be subject to the following fines:

| | |
|---|---|
| For construction projects or involving demolitions greater than 10,000 square feet of renovated, newly constructed, or demolished space | \$5,000 for each percentage point of difference between the amount by this section to be recycled and the amount actually recycled |
| For construction projects or demolitions involving less than 10,000 square feet of renovated, newly constructed, or demolished space | \$2,000 for each percentage point of difference between the amount required by this Section to be recycled and the amount actually recycled |

(Added Coun. J. 12-15-04, p. 40435, § 3)



**CITY OF CHICAGO
CONSTRUCTION & DEMOLITION DEBRIS RECYCLING
COMPLIANCE FORM - 2006**

This is a • construction project / • demolition project. (Check one.)

(Please see the instructions on page 4.)

| <u>Contractor Information</u> | <u>Construction/Demolition Site Information</u> |
|---------------------------------------|---|
| Contractor Name _____ | Address of Project Site _____ |
| Contractor License Number _____ | Building/Demolition Permit Number _____ |
| Street Address _____ | Project Completion Date _____ |
| City _____ State _____ Zip Code _____ | Size of Project (square feet) _____ |
| Telephone Number _____ | Project Manager's Name & Telephone Number _____ |
| Contact Name and Title _____ | Property Owner's Name & Telephone Number _____ |

Construction and Demolition Debris Information

| <u>C&D Debris Weight Information</u> | <u>Recycled C&D Debris Information</u> |
|--|---|
| 1) _____ Tons of all C&D debris produced on site (This amount must match the total on page 2.) | 4) _____ Tons of C&D debris recycled/reused off site (Completed Waste Hauler/Recycler Affidavit(s) must be attached to account for all debris taken to a recycler.) |
| <i>minus:</i> | <i>plus:</i> |
| 2) _____ Tons of contaminated C&D debris (with asbestos or other hazardous material) | 5) _____ Tons of reprocessed C&D debris used on site (Copy of DOE construction site reprocessing authorization must be attached.) |
| <i>equals:</i> | <i>equals:</i> |
| 3) _____ Total amount of recyclable C&D debris (List this amount on page 3, line "B.") | 6) _____ Total amount of recycled/reused C&D debris (List this amount on page 3, line "A.") |

NOTE: Pursuant to Section 11-4-1905(4) of the Chicago Municipal Code, all contractors are subject to audit to verify compliance. All documentation that supports this form (such as weight tickets and receipts) must be retained for no less than three years from the date that this form is filed.

Breakdown of all C&D Debris Produced on Site

| C&D Debris Type | On site Reused (tons)* | Off Site Reused/Recycled (tons)* | Off Site Disposed (tons)* |
|--|------------------------|----------------------------------|---------------------------|
| Bricks | | | |
| Concrete | | | |
| Masonry materials (cinder blocks, mortar etc.) | | | |
| Rock, stone, gravel | | | |
| Soil, dirt | | | |
| Sand | | | |
| Reclaimed asphalt pavement | ----- | | |
| Wood | ----- | | |
| Ferrous metal (iron, steel etc.) | ----- | | |
| Nonferrous metal (copper wiring etc.) | ----- | | |
| Plaster | ----- | | |
| Gypsum drywall | ----- | | |
| Paint | ----- | | |
| Plumbing fixtures and piping | ----- | | |
| Carpet and Pad | ----- | | |
| Non-asbestos insulation | ----- | | |
| Roofing shingles & other roof coverings | ----- | | |
| Cardboard, paper, packaging | ----- | | |
| Plastics | ----- | | |
| Glass | ----- | | |
| Landscape debris | ----- | | |
| Hazardous materials (please specify): | ----- | ----- | |
| Other (please specify): | | | |

Subtotals: _____ **

Total of all C&D debris produced on site (sum of the above 3 columns): _____

***If weight measurements are not available, convert volume to weight and retain documentation to support the accuracy of the converted measurement.**

****Waste Hauler/Recycler affidavits must be attached to account for the amount of C&D debris recycled or disposed of off site. To account for C&D debris reused on or off site, the contractor must provide supporting documentation upon request by the Dept. of Environment.**

Calculation of Recycling Percentage

- A) Total amount of Recycled/Reused C&D debris _____ tons
(from line 6, page 1)
- B) Total amount of Recyclable C&D debris _____ tons
(from line 3, page 1)

If Line B is zero, skip to Contractor Affidavit on page 4.

- C) Percent of C&D debris Recycled _____ percent
(divide A by B and multiply by 100)

Example:
 A. Total amount of Recycled/Reused C&D debris.... 2,025 tons
 B. Total amount of Recyclable C&D debris 5,700 tons

• $2,025 \div 5,700 = 0.36$ (rounded to the nearest hundredth)
 • $0.36 \times 100 = 36$

C. Percent of C&D debris Recycled 36 percent

- D) Percent required to be recycled (for 2006) 25 percent
- E) Line D minus line C _____ percent

If Line E is greater than 0%, go to Line F; if not, skip to Contractor Affidavit on page 4.

- F) Multiply line E by:
 \$1,000 - if project space is 10,000 square feet or more
 -or-
 \$500 - if project space is less than 10,000 square feet
- Total penalty _____ dollars

If a penalty is owed, make payment to: *City of Chicago Department of Revenue*
(City Hall, 121 N. LaSalle, Room 107A)

**Staple original receipt here:
(Please keep a copy for your records.)

For Department of Revenue use only:
 Funds Code: EB58 100-72-3035-2713 Ordinance 11-4-1905 Penalties

Election Form And Contractor Affidavit

Select one option, then sign the affidavit below before a Notary Public.

- • I have complied with the recycling requirements set forth in Section 11-4-1905 of The Chicago Environmental Protection and Control Ordinance; and all the information provided herein and attached hereto is correct.

or

- • I have paid the penalty calculated on page 3; all the information provided herein and attached hereto is correct; and I will not contest this penalty.

or

- • I have completed this form in full: all the information provided herein and attached hereto is correct; and I hereby request a hearing on the applicability of Section 11-4-1905 and/or the amount of penalty due. (You will receive a notice by mail, specifying the date, time, and location of the hearing).

Signature

Name Title

Date _____

Notary Public

INSTRUCTIONS

- 1) Complete this 4-page compliance form and sign before a Notary Public.
- 2) Attach one or more signed and notarized Waste Hauler/Recycler Affidavits.
- 3) Attach a Construction Site Reprocessing Authorization letter from the Department of Environment, if applicable.
- 4) Attach a receipt from the Department of Revenue, if a penalty was paid.
- 5) Return forms to the environment desk at DCAP, Room 906, City Hall, 121 N. LaSalle Street, within 30 days from project completion.

If you have any questions about this form, please call 312-744-7672.

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**DISPOSAL OF CLEAN CONSTRUCTION OR DEMOLITION DEBRIS
(CCDD) AND UNCONTAMINATED SOIL**
SECTION 01525

PART 1 GENERAL

1.01 APPLICABILITY

- A. Requirements of this Section shall apply only when Clean Construction or Demolition Debris (CCDD) or Uncontaminated Soil, as these terms are defined below, is placed off airport property at a CCDD Fill Operation or Uncontaminated Soil Fill Operation that is appropriately permitted or registered in accordance with 35 Illinois Administrative Code Part 1100 and any and all other applicable laws.

1.02 SUMMARY

- A. "Clean Construction or Demolition Debris (CCDD)" has the meaning assigned to term "Clean construction and demolition debris" in 35 Illinois Administrative Code 1100.103.
- B. "Uncontaminated Soil" has the meaning assigned to the term "Uncontaminated soil" in 35 Illinois Administrative Code 1100.103.
- C. CCDD and Uncontaminated Soil as defined above, can be transported to CCDD Fill Operations or Uncontaminated Soil Fill Operations that are appropriately permitted or registered in accordance with 35 Illinois Administrative Code Part 1100 and any and all other applicable laws, so long as the Contractor complies with all requirements of 35 Illinois Administrative Code Part 1100 and any and all other applicable laws.

1.03 SUBMITTALS

- A. Form LPC-663 Uncontaminated Soil Certification by Licensed Professional Engineer (LPE) or Licensed Professional Geologist (LPG).
- B. Form LPC-662 Source Site Certification by Owner.

1.04 RELATED WORK

- A. Related Sections include the following:
 - 1. Section 01524 Construction Waste Management

PART 2 MATERIALS (N/A)

PART 3 EXECUTION

3.01 DOCUMENTATION IMPLEMENTATION

- A. The LPE/LPG will make the determination of whether the site is a Potentially Impacted Property (PIP). If it is determined that the site is a non-PIP, the City will have the responsibility to complete an LPC-662. If it is determined that the site is a PIP, the LPE/LPG will have the responsibility to complete an LPC-663.
- B. Contractor will have the responsibility to submit the forms, along with any other applicable paperwork.
- C. Contractor will retain any testing firm needed to take samples or perform chemical analysis of the samples. Any laboratory performing chemical analysis must provide certification that the analysis has been performed in accordance with IEPA's rules for the accreditation of environmental laboratories.

PART 4 MEASUREMENT AND BASIS OF PAYMENT

4.01 MEASUREMENT AND PAYMENT

- A. All documentation, testing, laboratory analysis, and certification by a licensed Professional Engineer or licensed Professional Geologist, including all state and local tipping fees to meet the requirements of Public Act 96-1416 will not be measured separately for payment but will be considered included in the unit price for the associated removal or excavation items in the Contract. No additional time or monies will be granted to the Contractor for compliance with these requirements and any associated regulations.

END OF SECTION 01525

PROJECT IDENTIFICATION

SECTION 01580

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. Furnish and install all Project Identification as shown on the Drawings and as specified herein, including but not limited to the following:
 - 1. Construction Sign
 - 2. Maintenance
 - 3. Removal
- C. Install products and materials (furnished by others) as shown on the Drawings and as specified herein, including but not limited to the following:

1.02 RELATED WORK

- A. As specified in the following divisions:
 - 1. Division 1 - General

1.03 REFERENCES

- A. APA - American Plywood Association - The Engineered Wood
- B. NLGA - National Lumber Grades Authority

1.04 SUBMITTALS

- A. Submit the following
 - 1. Shop Drawings
 - a. Full size layout of sign showing spacing, size and type of letters to be used, location of City seal decal, and notations coverings colors to be used.
 - b. Show foundation, structure, sizes, and grade of members.
 - 2. Samples and/or Product Data
 - a. Product Data
 - b. Samples

- (1) Submit three (3) samples each of paint color specified to be used.
3. Test Reports
 - a. Submit test reports necessary to show compliance with the Contract Documents.
4. Manufacturer's Certification
 - a. Submit certification that products meet or exceed the specified requirements.
5. Operation and Maintenance Manuals
 - a. Provide maintenance instruction.

1.05 QUALITY CONTROL

- A. Perform Work in accordance with the latest edition of the appropriate divisions of the following
 1. APA - American Plywood Association - The Engineered Wood
 2. NLGA - National Lumber Grades Authority
- B. Design sign and structure to withstand 60 miles/hr (100 km/hr) wind velocity.
- C. Sign Painter - Experienced as a professional sign painter for minimum five (5) years.
- D. Finishes, Painting - Adequate to withstand weathering, fading, and chipping for duration of construction.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Protect materials against damage from mechanical abuse, plaster, salts, acids, staining and other foreign matter by an approved means during transportation, storage and erection and until completion of construction Work. All unsatisfactory materials must be removed from the premises, and all damaged materials replaced with new materials.
- B. Access and Storage Areas
 1. All access routes and storage areas must be subject to the approval of the Commissioner in order to reduce interference with Airport Operations.

1.07 WARRANTIES AND GUARANTEES

- A. (Not Used)

1.08 EXTRA MATERIALS AND SPARE PARTS

- A. (Not Used)

1.09 ENVIRONMENTAL REQUIREMENTS

- A. (Not Used)

1.10 SPECIAL REQUIREMENTS

- A. Job Conditions – Construction sign must be erected at such time that must least interfere or obstruct the normal operation and completion of each phase of the Work, or when so directed by the Commissioner.
- B. Protection – Protect Signs against damage from mechanical abuse, salts, acids, staining and other foreign matter by an approved means during transportation, storage and erection and until completion of construction work.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Sign
 - 1. Exterior Grade Plywood - HDO Exterior - APA designation or better, ½" minimum thickness, in sizes shown on Drawings.
- B. Posts
 - 1. Dense No. 1 grade - Douglas Fir, 4" x 4" x 10'-10" long, NLGA Grade for posts.

2.02 FABRICATION

- A. Construction sign must be completely shop fabricated, ready for mounting at the site to pre-set post supports, at location shown.
- B. Sign Graphics and City Seal logo must be laid out in letter style, sizes and arrangement shown on the Contract Drawings and per approved shop Drawings.
- C. Sign Boards, posts and framing must be primed and painted two (2) coats of exterior grade semi-gloss paint. Paint for lettering and graphics must be exterior grade semi-gloss paint. Colors must be as noted on Drawings

PART 3 EXECUTION

3.01 INSPECTION

- A. Before commencing installation, examine substrate surfaces to determine that they are free of conditions, which might be detrimental to proper and timely completion of the Work. Start of Work must indicate acceptance of the substrate.

3.02 INSTALLATION

- A. Excavate holes to receive [foundation] and sign posts and install as shown on the Drawings, with all wood surfaces below grade coated with creosote, or other approved type moisture resistant coating, prior to setting posts. Provide and install any bracing required for rigidity against movement cause by high winds or other elements.
- B. Install construction sign immediately after construction barriers are in place or as directed by the Commissioner, at locations shown on the Drawings.
- C. Install construction sign plumb and level, with butt joints. Anchor securely.
- D. Paint exposed surfaces of sign, supports and framing.

3.03 MAINTENANCE

- A. Sign and supports must be maintained during the construction period.

3.04 REMOVAL

- A. Upon completion of construction work, signs must be removed and post holes filled with earth.

3.05 CLEAN-UP

- A. All rubbish and debris resulting from the work of this Section must be collected, removed from the site and disposed of legally.
- B. All work areas must be left in a broom clean condition.

PART 4 METHOD OF MEASUREMENT

- 4.01 Project signs will not be measured for separate payment.

PART 5 BASIS OF PAYMENT

- 5.01 The costs of Project signs will be included in the Contract as a whole, and no separate payment will be allowed.

END OF SECTION 01580

CUTTING AND PATCHING

SECTION 01732

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. Furnish labor, equipment and tools required for Cutting and Patching Work as shown on the Drawings and as specified herein, including but not limited to the following:
 - 1. Required or necessary cutting and patching Work for a full and complete execution of the Work.
 - a. Such Work as on newly completed portions of the Work, or any previously completed or existing construction.
 - 2. Execute cutting, fitting and patching required to complete the Work or to:
 - a. Make several parts fit properly.
 - b. Uncover work to provide for installation of ill-timed work.
 - c. Remove any and all work not conforming to requirements of the Contract Documents and replace with work conforming to requirements of the Contract Documents.
 - d. Remove samples of installed work as required for testing.
 - e. Install required Work in existing construction, except as otherwise required.
 - 3. Upon written instructions of the Resident Engineer:
 - a. Uncover Work to provide for the Commissioner's observation of covered Work.
 - b. Remove samples of installed materials for testing.
 - c. Remove work to provide for changes as applicable.
- C. Install products and materials (furnished in other Sections) as shown on the Drawings and as specified herein.
- D. Do not damage or endanger any Work by cutting or altering the work or any part thereof.

- E. Do not cut or alter work of the City or any separate Contractor without written consent of the Commissioner and of other such separate Contractor.

1.02 RELATED WORK

- A. Division 3 – Concrete

1.03 SUBMITTALS:

- A. Submit a written request for consent to the Commissioner for work or operations, which affect other work or the structural integrity of any portion of Project. Receive written consent of the Commissioner prior to executing any cutting, alteration or excavation. Includes:
 - 1. Identification of Project
 - 2. Location and description of affected work
 - 3. Necessity for cutting, alteration or excavation
 - 4. Affect on the work, including progress of work and progress schedule, on property or operations of the City on existing construction or facilities, or on structural integrity of any portion of the Project.
 - 5. Description of proposed Work. Designate the following:
 - a. Scope of cutting, patching or alteration.
 - b. Contractor and trades to execute the work.
 - c. Products proposed to be used.
 - d. Extent of refinishing to be performed.
 - 6. Alternatives to cutting and patching or excavation.
 - 7. Precast or Post Tensioned Concrete
 - a. Prepare methods statement by professional engineer licensed in Illinois which coordinates the location of tension strands and tendons, as applicable, to be cut. Outlines precautions to be taken and coordinates procedures to clear, re-anchor and cut tension strands and tendons.
 - 8. Effect on work of the City or separate Contractor caused by such work.
 - 9. Written permission of affected separate Contractor.

10. Designation of responsibility for cost of cutting, patching and excavating.
11. Submit written notice to the Commissioner designating date and time work associated with cutting and patching operation must be uncovered.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Meet or exceed the requirements of the Contract Documents for each product involved.
- B. Replacement of removed products shall match original, except as otherwise required or as approved by the Commissioner. If identical products are not available, or cannot be used, use products that match existing adjacent surfaces to fullest extent possible with regard to visual effect subject to approval by the Commissioner. Use products for cutting and patching that must result in equal or better performance characteristics than removed products.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Inspect existing conditions of Project, including elements subject to movement or damage. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding with the Work.
- B. After uncovering Work, inspect conditions affecting installation of new products or performance of the Work.
- C. Report unsatisfactory or dubious conditions to the Commissioner in writing. Do not proceed with Work until the Commissioner has provided further instructions.

3.02 PREPARATION

- A. Provide devices and methods to protect adjacent portions of Project and adjacent properties from damage.
- B. Provide protection from elements for portion of Project which may be exposed by cutting and patching work. Provide dewatering to maintain spaces free from water.

3.03 PERFORMANCE

- A. Perform Work required with due care. Contractor must be responsible for any damage, which may be caused by such work. Perform Work in accordance with applicable requirements of the Contract Documents.
- B. Cutting must be done promptly and repairs must be made as necessary to leave the entire Work in good condition, including cutting, fitting and drilling of materials as required for proper assembly, fabrication, installation and completion of the Work, and including any patching as may be necessary.
- C. Execute cutting and demolition by methods, which will assure safety and health, will prevent damage and movement to other Work and will provide proper surfaces to receive installation of repairs or new Work. To avoid defacement of existing finished surfaces, cut from exposed or finished side into concealed surfaces.
- D. Maintain integrity of fire resistance ratings and separation construction of existing facilities adjacent to new Work, during the entire Work. At no time must protection of existing facilities be compromised. Provide new openings into existing building as required, but at all times maintain fire resistance ratings and separation construction of existing building.
- E. Execute fitting and adjustment of products and existing construction to provide a finished installation to comply with indicated functions, tolerances and finishes.
 - 1. Do not make openings larger than necessary to accommodate products to be installed or Work to be performed.
 - 2. Terminate cutting and demolition at existing construction to remain, leaving straight and clean break-lines, and in as good of a condition as existed prior to commencing Work, all subject to acceptance by the Commissioner.
 - 3. Remove existing materials as required to properly install new work or to connect new back-up construction.
- F. Restore work that has been cut or removed to at least the same condition which existed prior to performing such work subject to the approval of the Commissioner. Install new products to provide completed work meeting requirements of the Contract Documents.
- G. Coordinate location of patching terminations with the Commissioner to properly blend patched areas with existing construction.
- H. Repair existing construction or facilities to remain in-place, which has been disturbed, weakened or damaged as result of cutting and patching work, to at least same condition that existed prior to performing such work as acceptable to the Commissioner. Patch with seams that are durable and as invisible as possible.

3.04 PROCEDURES

A. General

1. Structural Components

- a. Do not cut, drill or weld building structural components without written review of the Commissioner for each condition, except where specifically indicated. Requests for authorization must be in writing, designating specific extent and limits of work, and components proposed to be cut, drilled or welded. Work performed contrary to such consent is at risk of the Contractor, subject to replacement at no additional cost to the City. When acceptable, cut and patch structural components in a manner that will not result in reduction of load carrying capacity or in load deflection ratio. Contractor must be responsible for any damage that may be caused to existing structures or facilities.

2. Fireproofing

- a. Do not cut or remove fireproofing materials that protect or cover construction without written review of the Commissioner for each condition. Requests for authorization must be in writing, designating specific extent and limits of fireproofing proposed to be cut or removed. Removed fireproofing materials must be replaced meeting requirements for original installation. Fireproofing materials must protect or cover work attached to fireproofed construction as required.

3. Operation and Safety Components

- a. Do not cut and patch operational elements or safety related components in a manner that would result in a reduction of capacity to perform in a manner intended, including energy performance, or that would result in increased maintenance, or decreased operational life or decreased safety.

4. Visual Requirements

- a. Do not cut and patch work that will be exposed in completed work, in a manner that would, in opinion of the Commissioner, result in lessened aesthetic qualities. Do not cut and patch work in a manner that would result in substantial visual evidence of such cutting and patching. Remove and replace work judged by the Commissioner to be cut and patch in a visually unsatisfactory manner.

B. Adjoining Work

1. Where cutting and patching occurs, or new and old work join, cut, remove, patch, repair and refinish, as applicable, adjacent surfaces or so much thereof as is required by involved conditions or as directed by the Commissioner, and leave with straight and clean break-lines and in as good a conditions as existed prior to commencing the work. Materials and workmanship employed in cutting and patching, unless otherwise required, will match similar original work as acceptable to the Commissioner. Cutting and patching work must be performed by various trades, which normally perform respective items of work.

C. Surfaces

1. If removal of construction exposes discolored or unfinished, or work out of alignment, such surfaces must be refinished or materials must be replaced to the satisfaction of the Commissioner as necessary to make continuous work uniform and harmonious.
2. Finish new and adjacent surfaces as required for new work. Clean surfaces of dirt, grease, loose paint, and like substances, before refinishing.
3. Refinish entire surfaces of areas as necessary to provide a uniform finish as required for new work and to match adjacent finishes as acceptable to the Commissioner. Extend finish restoration onto adjoining surfaces to eliminate evidence of patching and refinishing.
 - a. Continuous Surfaces - Refinish to nearest intersections.
 - b. Assembly - Refinish entire assembly unit.

D. Utilities

1. Check all utilities and services, including communications, electric, water, gas and waste, affected by the Work for proper disconnection or termination. Do not proceed with work until utility shut-off and sealing is completed. If utility or service is not properly shut-off or sealed, notify the utility Owner and customer for permission. Obtain permission in writing and provide copy of written permission to the Commissioner. Then perform required shut-off or sealing work. Reroute existing utilities as required.
2. Cut-off utility piping and electrical, communications and security conduit to be abandoned at a point so as not to interfere with subsequent work.

E. Embedded Items

1. Do not cut metallic components, such as electrical conduits, piping and

reinforcing steel, embedded in construction, such as concrete or masonry, except after metallic components are identified by the Commissioner and determined to be abandoned or not critical if cut.

2. Do not permit fluid associated with cutting tools to migrate outside of immediate cutting area, including underside of floor construction, and causing damage or defacement. When cutting abandoned, embedded electrical conduit or piping, do not permit fluid to enter conduit or piping.

F. Concrete

1. When areas larger than core drilled holes of concrete construction are to be removed, score periphery of area to be removed, both sides when applicable, with saw cut of 1" minimum depth prior to removing construction from removal area.
2. Where areas of concrete construction are to be removed for passage of piping or electrical conduits, provide core drilled holes.
3. In general, demolish concrete in small Sections. When necessary to prevent collapse of any construction, install temporary shores, struts or bracing.

G. Precast and Post Tensioned Concrete

1. No cutting and patching of precast or post tensioned concrete will be permitted without permission of the Commissioner.
2. Proceed only when method statement has received written approval of the Commissioner. Conduct all cutting and patching of precast or post tensioned concrete in presence of the Commissioner.

H. Masonry

1. Where courses of unit masonry must connect with existing unit masonry, remove each course of existing units masonry at connection point to provide a saw-tooth pattern for bonding new unity masonry. Break-lines must be at existing joints which will be free of existing mortar.
2. Where areas of unit masonry are to be removed for passage of piping or electrical conduit, provide core drilled holes.
3. In general, demolish masonry in small Sections. Where necessary to prevent collapse of any construction, install temporary shores, struts or bracing.

I. Roof Areas

1. Perform required work to existing roof in a manner not to void any roofing warranty.

2. Confine cutting of roof areas to limits required for proper installation of the Work. Cut, repair and replace roofing as required. Cut and remove for insulation and other system products as applicable. Provide temporary weather tight protection as required until new roofing and flashings are installed.

J. Reused Items

1. Carefully remove, store, protect, alter, clean, recondition and repair as required to place in acceptable condition, items to be re-used in the Work.
2. Items to be re-used in the work which are damaged during performance of work, must be repaired to a condition acceptable to the Commissioner. If damaged item is determined as not repairable, replace item with a new item of equal quality as acceptable to the Commissioner at no additional cost to the City.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Cutting and patching will not be measured separately for payment, but will be considered included in the overall Contract.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. All costs associated with meeting these requirements are included in the overall Contract. No additional time or monies will be granted to the Contractor for compliance with these requirements and any associated regulations.

END OF SECTION 01732

GEOTEXTILES

SECTION 02073

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. Furnish and install all Geotextiles for use as specified here in. Geotextiles must conform to the requirements for woven and non-woven fabrics as provided in Table 1.
- C. Install products and materials (furnished in other Sections) as specified herein, including but not limited to the following:

1.02 RELATED WORK

- A. As specified in the following divisions:
 - 1. Section 02316 - Trench Backfill

1.03 SUBMITTALS

- A. Submit the following
 - 1. Shop Drawings
 - a. Fabric panel layout and seams or overlap.
 - b. Placement and method of holding in place
 - 2. Samples and Product Data
 - a. Product Data
 - b. Samples
 - (1) Fabric
 - (2) Sewing Thread
 - 3. Test Reports
 - a. Submit test reports necessary to show compliance with the Contract Documents.
 - b. A certification of compliance from the geotextile Manufacturer that the product(s) delivered to the Project must have property values equal to or greater than those specified, and

- c. Factory test results of materials certified by the manufacturer as being similar, showing conformance with the requirements of these Specifications. Certified property values must be equal to the average value less two standard deviations. A swatch of the geotextile to be used must be submitted with the certification letter.
- B. For quantities over 10,000 square yards, the Contractor must furnish to the Commissioner, at least 10 working days prior to use in the work, a sample of five square yards of the geotextile from the shipment of materials to be used on the Project of verification testing. The lot number of the roll and the location of the sample obtained must be documented.
- C. The geotextile Contractor must make available quality control test results for the materials delivered to the Project. Quality control sampling must be done in accordance with ASTM D-4354, and the samples must be tested according to ASTM standards to grab tensile strength, trapezoidal tear strength, and puncture resistance. At least one AOS and one permeability test must be performed per lot number.

1.04 QUALITY CONTROL

- A. Contractor Qualifications: Installation of geotextile fabrics must be performed only by a qualified Installer. The term qualified means experienced in performing the Work required by this Section. The Contractor must have a minimum of five (5) years documented experience in Projects similar in size and scope to this Project. The Contractor must submit evidence of such qualifications upon request by the Commissioner.
- B. Perform Work in accordance with the latest edition, of the appropriate divisions, of the following:

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Materials must be delivered to the Project in sealed containers bearing Manufacturer's name and material identification. Materials must be stored in strict accordance with the Manufacturer's printed directions, copies of which must be furnished to the Commissioner.
- B. Protect materials against damage from mechanical abuse, plaster, salts, acids, staining and other foreign matter by an approved means during transportation, storage and erection and until completion of construction Work. All unsatisfactory materials must be removed from the premises, and all damaged materials replaced with new materials.
- C. Access and Storage Areas
 - 1. All access routes and storage areas must be subject to the approval of the Commissioner in order to reduce interference with Airport Operations.

1.06 WARRANTIES AND GUARANTEES

- A. The Contractor shall repair or replace defective materials and workmanship during the Contract Period and for one (1) year from the date of Substantial Completion of the project, at no additional cost to the City, when so directed by the Commissioner or the Chief Procurement Officer. Any equipment, materials, and workmanship repaired or replaced shall have the warranty period extended for a period of one (1) additional year from the date of repairs and/or replacements.
- B. The Contractor shall operate and maintain all Work including, but not limited to, mechanical, electrical, controls, temporary systems, etc., until such time that Substantial Completion is obtained. To achieve Substantial Completion, turn-over of as-built documents, operations and maintenance manuals, and operator training are required to be complete.
- C. The warranty period for all systems and equipment shall commence at substantial completion of the project, and not at the time of delivery, installation, or initial startup.
- D. Refer to Part Two of Three (General Conditions), Section VI (Quality of Workmanship, Equipment and Materials), Paragraph F (Warranties) for additional requirements.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Fibers, used in the manufacture of geotextiles, and threads, used in joining geotextiles by sewing, must consist of long chain synthetic polymers, composed of a least 95 percent, by weight, polypropylene or polyester. In the presence of limestone aggregate or below aggregate upon which concrete must be placed, the polymer must be restricted to polypropylene polymers. The material must be free of defects and tears and must meet or exceed the material requirements as listed below.
- B. The geotextile must meet or exceed the minimum property values in Table 1.

TABLE 1
Physical Property Requirements

| Test | Woven | Non-woven |
|---------------------------------------|----------|-----------|
| Grab Tensile Strength (ASTM D-4632) | 270 lbs. | 180 lbs. |
| Puncture Resistance (ASTM D-4833) | 100 lbs. | 75 lbs. |
| Trapezoid Tear Strength (ASTM D-4533) | 100 lbs. | 75 lbs. |

| | |
|---------------------------------------|-------------------------------|
| Apparent Opening Size (ASTM D-4751) | 0.3 mm |
| Permeability (ASTM D-4491)k | 10k or 0.1 cm/sec |
| Ultraviolet Degradation (ASTM D-4355) | 70% strength 500 hrs exposure |

1. Values shown are minimum roll average values with strength values based on the weaker principle direction. Acceptance or rejection of the geotextile must be solely based on the ASTM D-4759 procedure. The following manufactures are known to provide product that will meet the above Specification requirements:
 - a. TenCate Polyfelt
 - b. SKAPS Industries
 - c. Contech Engineered Solutions

2.02 PACKAGING

- A. Geotextile materials delivered to the site must be furnished with an outer plastic wrapping suitable for protection against moisture and extended ultraviolet exposure prior to placement. An opaque tarp must be placed over all rolls where the outer wrap is removed or damaged, such that the geotextile fabric has become exposed.
- B. Each role of geotextile will be externally labeled or tagged to provide product identification sufficient for field identification, as well as inventory and quality control purposes. As a minimum, external tagging must include:
 1. Name of Manufacturer
 2. Product Type and Style
 3. Product Grade
 4. Lot Number
 5. Physical Dimensions (Length and width)
- C. The product grade, manufacturers name, and lot number must be clearly marked directly on geotextile at the beginning and end of each roll or product:
- D. Rolls must be stored in a manner which protects them from the elements. If stored outdoors, they must be elevated and protected with a waterproof cover.

PART 3 EXECUTION

3.01 INSTALLATION

- A. The installation site must be prepared by clearing and grading the areas as indicated on the Plans. Remove all sharp objects, large stones, stumps, etc.
- B. The geotextile must be unrolled as smoothly as possible with no wrinkles or folds (except in curved Sections and corners) on the prepared subgrade. Adjacent rolls may be connected by sewn or sealed seams, provided the seam meets or exceeds the grab strength requirement in Table 1.
- C. For curves, the geotextile must be folded or cut and overlapped in the direction of the turn. Overlaps must be 12 inches or greater. Folds in geotextile must be stapled or pinned five feet on center.
- D. The aggregate (pea gravel), CA-16, must be placed onto the geotextile from the edge of the fabric or over previously placed aggregate. The first lift of aggregate must be spread and graded down to a minimum depth of 12 inches or to the design thickness. A minimum lift of six inches compacted thickness must be maintained in all cases. Compaction of the first lift must be performed by "tracking" with a dozer (if applicable), followed by compaction with a smooth-drum roller to the specified density. Construction vehicles that create ruts in the apron surface of greater than three inches will not be allowed. All ruts occurring during construction must be filled with additional aggregate and compacted to the specified density. Sudden stops and starts must be avoided where possible.
- E. Holes, tears, or otherwise damaged geotextiles, as determined by the Commissioner, must be repaired immediately at the Contractor's expense. The damaged area must be cleared of all fill material, a suitable distance from the damaged area, to allow placement of a geotextile patch, which extends three feet beyond perimeter of the damaged area. Aggregate removed must be replaced to the specified lift thickness and density.

3.02 GENERAL CLEAN-UP

- A. All rubbish and debris resulting from the Work of this Section must be collected, removed from the site and disposed of legally.
- B. All work areas must be left in a broom clean condition.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. No separate measurement will be made for Geotextiles.

PART 5 BASIS OF PAYMENT

5.01 BASIS OF PAYMENT

A. No separate payment will be made for Geotextiles. This work is incidental to the Contract.

END OF SECTION 02073

PAVEMENT REMOVAL
SECTION 02074

PART 1 DESCRIPTION

1.01 GENERAL

- A. This work will include removal of existing bituminous concrete pavement, Portland cement concrete (PCC) pavement, and concrete barrier shown on the Plans to be removed within the Project limits. The work will also include the removal of any underlying PCC pavement. Limits of pavement removal must be as shown on the Plans. Removed pavements are to be hauled away and disposed by the contractor at no additional cost to the contract. The Contractor must note the variable depths of the bituminous concrete pavement. The work under this Section is subject to the requirements of the Contract Documents.

PART 2 MATERIALS

(Not Used)

PART 3 CONSTRUCTION METHODS

3.01 PAVEMENT REMOVAL

- A. Method of Removal – Equipment and methods used for removing pavement and concrete barrier will be such as to prevent cracking, shattering, or spalling of the adjacent pavement to remain in place. Breaking pavement by means of a ball breaker or a gravity drop hammer will not be permitted. Sawcutting of pavement full depth is required prior to removal where shown on the plans or directed by the Commissioner. Breaking up of concrete to be removed must be done to reduce the concrete to pieces no larger than two (2) feet in its largest dimension.
- B. Areas of Pavement Removal/Replacement – Areas of the subgrade or base course that are below the required elevation of the proposed finished subgrade will be built up with compacted granular material (CA-6).
- C. Disposal – Surplus materials and broken pavement will be disposed of as specified in Construction Waste Management Section 01524.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. PCC pavement removal will be measured in place at the top of pavement, and the area computed in square yards. Composite PCC/bituminous pavements, or those with variable thickness of bituminous concrete over concrete, will be measured as PCC removal. There will be no distinction made between removal of concrete pavement with reinforcement and removal of concrete pavement without reinforcement. Sawcutting limits of removal of all pavements will be incidental to this item.
- B. If additional pavement is removed due to negligence on the part of the Contractor, the additional quantity of pavement removal and replacement will not be measured for payment.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Payment will be made at the Contract unit price per square yard for pavement removal, which will be payment in full for all labor, materials, equipment, sawcutting, and all work necessary to remove the pavement, haul away and dispose of as specified herein.
- B. There will be no additional compensation for hauling away and disposing of all removed material.
- C. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|---------------------------|-------|
| 02074-5.01 | REMOVE PCC PAVEMENT | SQ YD |
| 02074-5.02 | REMOVE TEMPORARY PAVEMENT | SQ YD |
| 02074-5.03 | REMOVE MEDIAN | SQ FT |

END OF SECTION 02074

**HANDLING AND DISPOSAL OF PAINT
THAT CONTAINS LEAD**
SECTION 02088

PART 1 GENERAL

1.01 SUMMARY OF DISPOSAL WORK

- A. Lead-based paint and/or lead-containing paint has been identified on equipment, components, and piping systems included in the scope of work for this Contract.
 - 1. Waste materials generated as a result of the disturbance of paint that contains lead may be subject to special handling and disposal considerations.
 - 2. Disturbance of these paints will also require compliance with OSHA's Lead in Construction Standard. (29CFR 19266.62)
 - 3. The Contractor shall assume that the paint on the bridge structure railings to be demolished contains lead, or conduct supplemental testing as may be required by applicable regulations.
- B. This project is specifically not requiring removal of all lead paint on the subject surfaces. Rather, the scope of work includes special handling and disposal procedures for all lead paint that will be disturbed or impacted during the bridge structure demolition of this project.
 - 1. Lead paint that is in good condition will generally not require removal provided the surfaces will not be subject to torch or other activities that may result in occupational exposure to lead above the OSHA Action Level.
- C. All work that involves the disturbance or handling of lead paint shall only be performed by workers that have received the required training and medical surveillance as required by the OSHA Lead in Construction Standard 1926.62.
- D. In locations where the contractor will disturb lead containing coatings, that disturbance shall be performed in accordance with all requirements as specified herein.
 - 1. The Contractor shall make the determination concerning the work methods that will be used to remove lead paint. Options can include hand scraping, chemical "peel away", power tools, a combination thereof, or other approved methods.
 - 2. In the event that concentrations of hazardous constituents are present within paint and other coatings that may be impacted by planned work activities, the contractor shall provide adequate protection to their workers in accordance with applicable OSHA regulations and shall ensure that work practices and engineering controls be implemented to protect building occupants, the general public and the environment from exposure to nuisance dust or other potentially hazardous compounds

- E. In all areas where paint removal activities will occur, contractor shall conduct a pre-clean to remove any visible paint chip debris from the surfaces.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. None.

1.03 REGULATIONS

- A. See General Conditions of the Contract.
- B. All work must conform to the latest rules and regulations of the Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA) Lead Construction Rule 1926.62, Illinois Department of Public Health, City of Chicago, and state and local government regulations which are incorporated by reference.
- C. The work must also conform to the requirements specified herein and on the drawings, both of which are a part of these contract documents.
- D. Wherever inconsistencies occur between the referenced materials, the more stringent shall apply. The intent of these documents is to assure that the work is conducted in a manner which provides the highest level of safety.

1.04 TESTING SERVICES

- A. The Contractor remains fully responsible for the health and safety of all persons coming into contact with affected areas.
- B. The Contractor is responsible, at a minimum, for all Personal Samples required in accordance with OSHA 1926.62 and for all Air Samples that shall be collected outside of work areas. Submit entity performing Air Sampling as part of Quality and Testing Organization submission.

1.05 QUALITY ASSURANCE

- A. The work may consist of the removal and disposal of lead containing materials. Lead is proven to be a material which can cause a serious health risk to humans. The work is governed by a body of local, state and federal rules, regulations and laws. The Contractor agrees by accepting the contract that he is fully knowledgeable of this information and will bear full responsibility for the health and safety of his staff and all people, including Commissioner's employees and invitees, and all third persons who come in contact with the work site. The Contractor must state in writing any concerns he has about the adequacy of the rules, regulations and laws or the Contract Documents. The letter must be specific and include alternative safeguards and procedures that will correct the stated inadequacies.
- B. The Contractor remains responsible for the health and safety of the Workers and for all personal samples required.
- C. The Contractor shall cooperate with the Commissioner. This cooperation shall include allowing access to the work to allow for visual monitoring, providing scaffolding or other work platforms to allow for inspection of the

work, collecting area air samples for the Commissioner, providing requested data or personnel, equipment, scheduling and any other manner which facilitates the Commissioner's monitoring of the work.

- D. The Contractor shall not allow anyone access to the site who is not authorized by the Commissioner to enter the site of the work.
- E. The Contractor is responsible for maintaining a log of all personnel by name who enter the work place. A copy of all logs shall be submitted to the Commissioner on a weekly basis.

1.06 NOTIFICATIONS AND SUBMITTALS

- A. Follow procedures set forth in OSHA 1926.62.
- B. Submit the following reports as Specified in Section 09901/02088
 - 1. Site specific Health & Safety Plan (HASP)
 - 2. Contractor Contingency Plan
 - 3. Lead Removal Plan
 - 4. Written Air Monitoring Work Plan
 - 5. Quality and Testing Organization for approval
 - 6. Cleaning and Chemical Peel Products for approval
- C. Manufacturers data on all materials used at the work place shall be submitted at least one week prior to the commencement of work.
- D. Submit detailed Project Schedule and all other submittals as specified in Bid Documents

1.07 PROJECT SITE CONDITIONS

- A. The Contractor is responsible for having made a detailed review of the work areas prior to his having submitted a proposal. The contractor is expected to have considered, and included in his bid, all aspects of the existing conditions and their impact, particularly to cost and health and safety, to his work.
- B. The Commissioner will make arrangements to allow access to the site. The hours that the Contractor will work will be as indicated in the drawings or as directed by the Commissioner. The work shall be limited to specific areas of the site. Arrangements for use of the site will be restricted to those areas specifically allowed by the Commissioner.
- C. Other contractors may be working at the site after completion of the lead abatement. This Contractor shall:
 - 1. Cooperate with all other contractors, and
 - 2. Prevent any work by others from jeopardizing the lead work.
 - 3. Inform the Commissioner of conflict: contamination, etc.
- D. The Commissioner shall approve of the location of temporary on-site lead waste storage.

1.08 PROJECT COORDINATION

- A. The Resident Engineer shall have the authority and responsibilities defined by the Commissioner in accordance with Federal, State and Local regulations and in accordance with the Commissioner-Contractor contract.
- B. The Contractor shall provide a full-time General Superintendent who is experienced in the administration and supervision of lead Removal projects including work practices, protective measures for building and personnel, disposal procedures, etc. This person shall also be the Competent Person as required by OSHA in 29 CFR 1926.62 for the Contractor and the Contractor's representative responsible for compliance with all applicable federal, state and local regulations, particularly those relating to lead-containing materials.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. All materials shall be new and from unopened containers.
- B. Materials shall be stored in areas designated by the Commissioner.
- C. All plastic sheeting shall be fire retardant.
- D. All circuits providing power to the work area will be equipped with Ground Fault Interrupter (GFI) devices at the source of the power.
- E. New construction materials furnished and installed by others shall not be adversely affected by the work done by the Removal contractor. This Contractor alone bears full responsibility for assuring that new materials and work furnished by others will not be adversely affected by work done by the Removal contractor.

PART 3 EXECUTION

3.01 PERSONNEL PROTECTION

- A. The Contractor shall provide all training and equipment for his staff and workers and for providing respiratory protective equipment for his staff and workers as required by OSHA 1926.62 and the OSHA Respiratory Protection Standard.
- B. The Contractor is responsible for preventing unauthorized personnel from entering the work area.

3.02 BUILDING PROTECTION

- A. The Contractor shall take any and all reasonable and necessary precautions to protect the work areas, subject to the Commissioner's approval.

3.03 STOP WORK ORDER

- A. The Commissioner shall have the authority to stop LBP removal at any time activities or Removal conditions are not within specification requirements. Work will not resume until conditions have been corrected. The following are examples of situations requiring a stop work order:

1. Evidence of excessive lead concentrations outside the work area (airborne lead, paint chips, dust, fugitive debris).
 2. Serious injury within the work area.
 3. Visible debris observed outside the regulated area.
- B. The work stoppage will continue until the unacceptable conditions have been corrected. Written authorization, from the Commissioner is required prior to commencing removal operations.
- C. Standby time, delays, and costs incurred for corrective action is at the Contractor's expense.

3.04 WORK AREA PREPARATION

- A. The contractor will remove lead paint via manual scraping/wire brushing, chemical peel away, or the use of power tools with vacuum and HEPA filtration (needle guns, etc.) prior to any torch cutting activities or other activities that may result in occupational exposure to lead above applicable regulatory limits, the Contractor shall prepare the work area as specified below.
1. Post warning signs and regulate the space as required by OSHA 1926.62.
 2. Conduct a pre-clean to remove all visible paint chip debris.
 3. Install an impermeable drop cloth below the work activity. Drop cloth shall extend a minimum of ten feet out in all directions from beneath the work.
 4. Install visual barriers using tarps or plastic sheeting in high traffic areas.
 5. Contractor shall Stop Work if environmental conditions (high wind, rain, etc.) may allow visible emissions outside of the regulated area.

3.05 COMMENCEMENT OF WORK

- A. Removal shall not begin until the following have occurred:
1. Contractor submittals, notifications, postings, and permits have been provided and are satisfactory to the Commissioner.
 2. Equipment for removal, clean up and disposal are on-site.
- B. Notification to start shall be received from the Commissioner in written form.

3.06 REMOVAL PROCEDURES

- A. Contractor shall remove LBP using trained workers in accordance with applicable regulations and as specified herein.
- C. LBP shall be removed as required prior to torch cutting activities or other activities that may result in occupational exposure to lead above applicable regulatory limits. In general, paint shall be removed a minimum of 4" on each side of the cut point.
- D. Steps to the sequence for the removal of LBP are as follows:

1. Pre-clean the work space using wet methods and HEPA vacuums to remove all visible dust and paint chip debris.
2. Prepare the work area as described in Paragraph 3.4 of this Section.
3. Workers shall wear protective clothing during all removal work.
4. Establish respiratory protection in accordance with OSHA regulations.
5. Perform removal of lead paint. Wet clean and HEPA vacuum to remove all visible debris. Wet cleaning methods shall be utilized at all times.
6. All power tools used to remove lead paint shall be equipped with a vacuum and HEPA filtration.
7. Conduct a fine cleaning of all surfaces in the work space.
8. Pass visual inspection by Contractor's competent person and/or Commissioner's representative to ensure all visible debris has been removed. Re-clean as directed.
9. Remove layer(s) of plastic sheeting from the roof. Wet clean and HEPA vacuum the floor to remove any remaining visible debris.
10. Pass final visual inspection by Competent Person and/or Commissioner's representative. Re-clean as directed.

3.07 CLEARANCE SAMPLING AND ANALYSIS

- A. The Commissioner reserves the right to conduct clearance testing using surface wipe samples on the floors of work areas. Samples will be collected according to the Department of Housing and Urban Development guidelines. All results must be less than 40 micrograms of lead per square foot of area.
- B. Failure of the final visual inspection or failure of the first set of clearance samples to meet the criteria will result in the Contractor paying all costs of all additional testing and inspections.
- C. The Commissioner reserves the right to conduct pre and post Removal testing and lead analysis in exterior work areas.

3.08 EQUIPMENT AND WASTE CONTAINER REMOVAL

- A. Handle all equipment and waste container removal as described in OSHA 1926.62 and the EPA's Resource Conservation and Recovery Act (RCRA).

3.09 DISPOSAL PROCEDURES

- A. Comply with all Federal, State, and local legal requirements including, but not limited to, those set forth in OSHA 1926.62 and EPA 40CFR Parts 261, 262, 263, and 268 of the Resources Conservation and Recovery ACT (RCRA).
- B. Removed Lead waste shall be placed in approved sealed containers for disposal. Do not mix various types of Removed waste. Otherwise, non-hazardous wastes may need to be treated as hazardous waste.

- C. The waste shall be tested by Toxicity Characteristic Leachate Procedure (TCLP) or such other procedures as may be legally required to determine whether it is hazardous or other special waste, and to identify legal requirements governing its disposal.
- D. Solid Waste (Non-Hazardous) Disposal
 - 1. Solid waste which has been evaluated and determined not to be hazardous must be disposed of in accordance with all legal requirements which govern such solid non-hazardous wastes.
 - 2. Debris such as disposable clothing shall be placed in two (2) 6-mil plastic bags, sealed and placed in the trash storage area.
 - 3. Waste should be transported to the disposal facility in covered vehicles.
 - 4. Residential or commercial trash collection services should not be used without approval of state or local authorities.
- E. Hazardous Waste Disposal
 - 1. Hazardous waste must be disposed of at an appropriately licensed and permitted hazardous waste disposal facility, usually called a treatment, storage, and disposal facility (TSD). A TSD must have an EPA ID Number and authorization (either a permit or "interim status permit") to operate. It is the responsibility of the Removal contractor to ensure that the TSD meets all legal requirements.
 - 2. Special care must be taken in removing hazardous waste from the site, in order to avoid environmental contamination or injury to workers or building occupants. While in the work area, the exterior of the filled waste containers should be HEPA vacuumed and wet-wiped to remove residual contamination. If plastic bags are used, they should be bagged again as they come out of the work area.
 - 3. Containers should be moved and packed into the truck with care. When possible, truck dollies or pull carts should be used, along with ramps or trucks with lift gates.
 - 4. These procedures will help minimize container breakage and consequent exposure of building occupants or employees to hazardous waste.
 - 5. All waste is to be hauled by a waste hauler with all required permits and licenses from all state and local authorities with jurisdiction and transported to a pre-arranged disposal location.
- F. Contractor shall transport lead waste directly to the disposal facilities from the work site. The waste shall be transported in accordance with RCRA 263, 264, 265, and 270 and other such regulations as may apply.
- G. All dump receipts, trip tickets, waste shipment records and other documentation of disposal shall be delivered to the Owner within 72 hours of transport.

- H. A waste shipment record shall accompany all lead waste that is transported off the work site. The waste shipment record shall be completed and include the necessary information in accordance with RCRA 40 CFR parts 262 and DOT 49CFR parts 101,173 and 178, and all other such regulations as may apply.
- I. The waste shipment record shall follow the RCRA 40 CFR part 262 "Uniform Hazardous Waste Manifest," and all other legal requirements as may apply, and at a minimum include the following:
 - 1. Name and phone number of Owner.
 - 2. Name and address of company performing abatement.
 - 3. Name and phone number of authorized agent.
 - 4. Name, address, physical site location, and phone number of waste disposal site.
 - 5. Name and address of agency responsible for administering the lead program.
 - 6. Type of lead waste material generated.
 - 7. Amount of lead material.
 - 8. Number and type of containers used.
 - 9. Quantity of lead waste.
 - 10. Special handling procedures, instructions.
 - 11. Name, address and telephone of transporter.
 - 12. Any discrepancies when waste arrives at disposal site.
- J. The Generator, transporter, and disposal site operator shall each sign and date the waste shipment when the waste is received. Each should keep a copy of the shipment record with the appropriate signatures. The waste disposal site operator shall return a completed copy of the shipment record to the waste generator.

3.10 RE-ESTABLISHMENT OF THE WORK AREA

- A. The work area shall be reestablished only after the area passes visual inspections and/or clearance wipe testing.
- B. Remaining barriers and worker and equipment shall be removed and disposed appropriately.
- C. All surfaces shall be checked for damage by the Contractor and the Commissioner. All damaged areas shall be restored to their pre-removal condition.

3.11 SUBSTANTIAL COMPLETION

- A. Substantial Completion is the stage in the progress of the project where the Work, or a designated portion thereof, is sufficiently complete in accordance with the Contract Documents so that the Owner can safely occupy, begin reconstruction or utilize the area for its intended use. At this stage in the progress of the project the Contractor has cleared the area with final air sampling, all barriers have been removed, and all lead removal equipment, material, and waste have been removed.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. All work included in this specification will not be measured separately for payment.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT:

- B. No separate payment will be made for work as listed in this specification. Payment will be incidental to the Contract demolition pay items. This work includes all testing, permitting, tools, equipment, labor, encapsulation, disposal fees and all incidentals required to complete this work as listed in this specification and as required by the latest EPA, NIOSH, OSHA, State, City regulations, procedures, and certifications.

END OF 02088

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REMOVAL OF EXISTING STRUCTURES
SECTION 02220A

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|--------------------------------|
| 501 | REMOVAL OF EXISTING STRUCTURES |

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per each.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--------------------------------|------|
| 02220A-5.01 | REMOVAL OF EXISTING STRUCTURES | EACH |

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CONCRETE REMOVAL
SECTION 02220B

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|--------------------------------|
| 501 | REMOVAL OF EXISTING STRUCTURES |

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per cubic yard.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|------------------|-------|
| 02220B-5.01 | CONCRETE REMOVAL | CU YD |

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PROTECTIVE SHIELD
SECTION 02220C

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|--------------------------------|
| 501 | REMOVAL OF EXISTING STRUCTURES |

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per square yard.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|-------------------|-------|
| 02220C-5.01 | PROTECTIVE SHIELD | SQ YD |

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DEWATERING

SECTION 02240

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.02 PERFORMANCE REQUIREMENTS

- A. Dewatering Performance: Design, furnish, install, operate, monitor and maintain dewatering system of sufficient scope, size and capacity to control ground-water flow into tunnels from excavations or drillings and permit construction to proceed on dry, stable surface.
 - 1. Maintain dewatering operations to ensure stability of the proposed soil densification procedures from the drilling of the tunnel walls and polyurethane injection, so that flooding of the tunnels structure is prevented.
 - 2. Prevent surface water from entering work area excavations.
 - 3. Accomplish dewatering without damaging the Bridge Structure.
 - 4. Remove dewatering system if no longer needed.

1.03 SUBMITTALS

- A. Submit the following
 - 1. Shop Drawings for Information: For dewatering system. Show arrangement, locations and details of wells and well points; locations of headers and discharge lines; and means of discharge and disposal of water.
 - a. Include layouts of piezometers and flow-measuring devices for monitoring performance of dewatering system.
 - b. Include a written report outlining control procedures to be adopted if dewatering problems arise.
 - c. Include Shop Drawings signed and sealed by the qualified professional engineer responsible for their preparation.

- B. Qualification Data: For Installer and professional engineer.
- C. Photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by dewatering operations.
- D. Record Drawings at Project closeout identifying and locating capped utilities and other subsurface structural, electrical or mechanical conditions performed during dewatering.
 - 1. Note locations and capping depth of wells and well points.
- E. Field Test Reports: Before starting excavation, submit test results and computations demonstrating that dewatering system is capable of meeting performance requirements.

1.04 QUALITY CONTROL

- A. Regulatory Requirements: Comply with water disposal requirements of City of Chicago and as required by the Commissioner.
- B. Pre-installation Conference: Conduct conference at Project site to comply with Project requirements.

1.05 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Commissioner and then only after arranging to provide temporary utility services according to requirements indicated.
- B. Project-Site Information: A geotechnical report was prepared for this Project and is available for information only. The opinions expressed in this report are those of geotechnical engineer and represent interpretations of subsoil conditions, tests and results of analyses conducted by geotechnical engineer. Owner will not be responsible for interpretations or conclusions drawn from this data.
 - 1. Make additional test borings and conduct other exploratory operations necessary for dewatering.
 - 2. The geotechnical report is available from the Commissioner.
- C. Survey adjacent structures and improvements, employing a qualified professional engineer or land surveyor, establishing exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks and record existing elevations.
 - 1. During dewatering, regularly resurvey benchmarks maintaining an accurate log of surveyed elevations for comparison with original elevations. Promptly notify Architect if changes in elevations occur or if cracks, sags, or other damage is evident in adjacent construction.

PART 2 PRODUCTS

2.01 [Not Used]

PART 3 EXECUTION

3.01 PREPARATION

- A. Protect tunnel structures, utilities, sidewalks, pavements and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by dewatering operations.
 - 1. Prevent surface water and subsurface or ground water from entering tunnels.
 - 2. Protect subgrades and foundation soils from softening and damage by rain or water accumulation.
- B. Install dewatering system to ensure minimum interference with pedestrian tunnels and public spaces, walks, and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks or other adjacent occupiers or used facilities without permission from Commissioner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.

3.02 INSTALLATION:

- A. Install dewatering system utilizing wells, well points, or similar methods complete with pump equipment, standby power and pumps, filter material gradation, valves, appurtunences, water disposal, and surface-water controls.
- B. Before excavating below ground-water level, place system into operation to lower water to specified levels. Operate system continuously until drains, sewers, and structures have been constructed and fill materials have been placed, or until dewatering is no longer required.
- C. Provide an adequate system to lower and control ground water to permit excavation, construction of structures, and placement of fill materials on dry subgrades. Install sufficient dewatering equipment to drain water-bearing strata above and below bottom of foundations, drains, sewers and other excavations.
 - 1. Do not permit open-sump pumping that leads to loss of fines, soil piping, subgrade softening, and slope instability.
- D. Reduce hydrostatic head in water-bearing strata below subgrade elevations of foundations, drains, sewers and other excavations.
 - 1. Maintain piezometric water level a minimum of 3 feet below surface of excavation.
- E. Dispose of water removed by dewatering in a manner that avoids endangering public health, property and portions of work under construction or completed. Dispose of water in a manner that avoids inconvenience to others. Provide

sumps, sedimentation tanks, and other flow-control devices as required by authorities having jurisdiction.

- F. Provide standby equipment on-site, installed and available for immediate operation, to maintain dewatering on continuous basis if any part of system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, restore damaged structures and foundation soils at no additional expense to Owner.
 - 1. Remove dewatering system from Project site on completion of dewatering. Plug or fill well holes with sand or cut off and cap wells a minimum of 36 inches (900 mm) below overlying construction.
- G. Damages: Promptly repair damages to adjacent facilities caused by dewatering operations.

3.03 OBSERVATION WELLS:

- A. Provide, take measurements and maintain at least the minimum number of observation wells or piezometers indicated and additional observation wells as may be required by authorities having jurisdiction.
- B. Observe and record daily elevation of ground water and piezometric water levels in observation wells.
- C. Repair or replace, within 24 hours, observation wells that become inactive, damaged or destroyed. Suspend construction activities in areas where observation wells are not functioning properly until reliable observations can be made. Add or remove water from observation-well risers to demonstrate that observation wells are functioning properly.
 - 1. Fill observation wells, remove piezometers, and fill holes with sand after dewatering is completed.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Dewatering will not be measured separately for payment.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. All costs associated with meeting these requirements are included in the overall Contract. No additional time or monies will be granted to the Contractor for compliance with these requirements and any associated work, materials or equipment.

END OF SECTION 02240

CONTROL OF WATER

SECTION 02241

PART 1 DESCRIPTION

1.01 GENERAL

- A. The work of this Section includes control, handling, treatment, and disposal of groundwater, surface water, storm water from existing pipelines, and any other water that may be encountered during the construction.
- B. This Section includes bypass pumping of live storm and sanitary sewers.
- C. Work performed in this Section must be coordinated with Section P-156 of these Specifications.

1.02 RELATED WORK

- A. Related Sections include the following:
 - 1. Section 02601 – Storm Sewer
 - 2. Section 02601A – Drainage Scuppers, DS12
 - 3. Section 02601B – Drainage System
 - 4. Section P-156 – Temporary Air and Water Pollution, Soil Erosion and Sediment Control

1.03 PERFORMANCE REQUIREMENTS

- A. Design, provide, operate, monitor and maintain systems of sufficient scope, size and capacity to control groundwater, surface water, storm water, and all other water flow into excavations and to permit construction to proceed on dry, stable subgrades.
 - 1. Maintain water control systems to ensure erosion control, and stability of excavations and constructed slopes, such that excavation does not flood and that damage to subgrades and permanent structures is prevented.
 - 2. Prevent surface water from entering excavations by grading, dikes, ditches, and other means.
 - 3. Accomplish control of water and dewatering without damaging existing buildings adjacent to excavation.
 - 4. Remove water control systems when no longer needed.
- B. For tunneled pipe construction, ground water level must be lowered to 4 feet below the tunnel prior to any tunneling and kept at that level during tunneling.

1.04 SUBMITTALS

- A. Submit a Water Control Plan describing the proposed method for control, handling, treatment, and disposal of water. As a minimum, describe the following:
 - 1. Methods of controlling water (such as cutoff, dewatering, sumping), equipment, and power supply.
 - 2. Details of dewatering wells and wellpoints, including location, size, depth, spacing, length and type of screen; pumping capacity; locations of headers and discharge lines; means of discharge and disposal of water; and method of monitoring discharge.
 - 3. Schedule of installation and operation of water control facilities.
 - 4. Means of monitoring groundwater levels and piezometric pressures.
 - 5. Sediment and pollution control facilities as described in Section P-156 of these Specifications.
 - 6. Discharge locations to be used.
 - 7. Method of bypassing existing live sewers.
 - 8. Resubmit, as appropriate, if the system or any part thereof is modified during installation or operation.
- B. Submit, for information only, copies of all required permits for control, handling, treatment, and disposal of water.
- C. Submit, for information only, copies of required monitoring records.
- D. Record Drawings at Project closeout identifying locations and capping depth of wells and well points.

1.05 REGULATORY REQUIREMENTS

- A. Comply with water disposal requirements of City of Chicago, North Cook County Soil and Water Conservation District (NCCSWCD), Kane Dupage Soil and Water Conservation District (KDSWCD), Corps of Engineers, Section P-156 of these Specifications, and as required by the Commissioner.

PART 2 PRODUCTS

[Not Used]

PART 3 EXECUTION

3.01 GENERAL

- A. Control, handle, treat, and dispose of water continuously during the course of construction. Perform this work without interference with the operations of other

Contractors, or the rights of public and private owners, and without damage to structures, adjacent property, and the environment.

- B. Protect structures, utilities, pavements and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by dewatering operations.

3.02 CONTROL OF SURFACE WATER

- A. Prevent surface water from ponding on the site and from draining into excavations, and prevent runoff from adjacent properties from entering the construction site, in quantities that might interfere with prosecution of the Work.
- B. Intercept and divert surface water by use of surface grading, dikes, curbs, ditches, sumps, and other means and in accordance with Section P-156 of these Specifications.

3.03 CONTROL OF WATER IN EXCAVATIONS

- A. Control water inflows to excavations to prevent loss of fines, soil erosion or piping, flowing ground, slope instability, or softening of subgrade or foundation soils.
- B. Allow no standing water in the bottom of the excavation during construction activities not specifically intended to be performed in a flooded excavation. Allow no standing water during placement of bedding and backfill, erection of formwork, placement and curing of concrete, placement of pipe, or other permanent construction.
- C. Reduce or counteract groundwater pressure in soils outside the excavation to prevent bottom heave in trenches, shafts, and other excavations.
- D. Minimize reduction of groundwater pressure outside the excavation to avoid consolidation of compressible soil strata.
- E. Provide standby pumps and standby power supply where disruption of water control systems could allow water inflows to threaten the Work or the safety of personnel. Take immediate steps to control water inflow to the excavation that could cause loss or damage to adjacent structures or property.

3.04 DEWATERING WELLS

- A. Dewatering from wells must be kept to the minimum necessary to accomplish the work. Design screens and operate wells so as to prevent removal of fine soils.
- B. Provide means to adjust water discharge from each well independently. Monitor the discharge from each well on a daily basis, and provide discharge records to

the Commissioner weekly.

- C. Abandon dewatering wells and piezometers by grouting the full depth of casings and pipes by tremie method or by pressure injection from the ground surface. Grout must consist of cement and water, with the minimum amount of water necessary to allow pumping. Cut off or remove casings and pipes to at least 3 feet below final grade. Obtain any required permits for well abandonment in accordance with local regulations.

3.05 TREATMENT AND DISPOSAL OF WATER

- A. Discharge water into a sediment trap, into a ditch or temporary ditch that leads to a sediment trap, or into a sediment containment filter bag in accordance with Section P-156 of these Specifications.
- B. Prior to discharging water, remove suspended solids, oils, cement, bentonite, and other contaminants by use of settling basins, on-site treatment plant, or other means. Reduce contaminant concentrations to levels acceptable to authorities having jurisdiction over receiving waters. Select treatment systems that can accommodate expansion if greater capacity becomes necessary during the course of the work.
- C. On completing the work, clean out and dispose of all sediments and residues in settling basins and treatment facilities. Dispose of sediments and residues in accordance with applicable regulations.

3.06 BYPASS PUMPING

- A. Maintain sewer and storm water flows around work areas in a manner that will not cause surcharging or damage to sewers, and that will protect public and private property from damage and flooding. The Contractor must not stop or impede the main flows under any circumstances.
- B. Provide, maintain, and operate temporary facilities including dams, plugs, pumping equipment, and conduits necessary to intercept flow before it reaches the point where it would interfere with the work, carry the flow past the work, and return flow to the existing sewer downstream of the work.
- C. Utilize pumps, power systems, and other equipment that will accommodate the cyclic nature of effluent flows.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. No separate measurement will be made for Control of Water.

PART 5 BASIS OF PAYMENT

5.01 BASIS OF PAYMENT

- A. No separate payment will be made for Control of Water. Payment for this work is incidental to the Contract.

END OF SECTION 02241

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TEMPORARY EARTH RETENTION SYSTEM
SECTION 02255A

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|-----------------|
| 522 | RETAINING WALLS |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Shop Drawings
 - 2) Design Calculations

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per square foot.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|----------------------------------|-------|
| 02255A-5.01 | TEMPORARY EARTH RETENTION SYSTEM | SQ FT |

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STRUCTURE EXCAVATION
SECTION 02315A

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|---------------------------|
| 502 | EXCAVATION FOR STRUCTURES |

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per cubic yard.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|----------------------|-------|
| 02315A-5.01 | STRUCTURE EXCAVATION | CU YD |

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TRENCH BACKFILL

SECTION 02316

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. Furnish and install all stabilization stone, bedding material, fine aggregate for Trench Backfill and approved backfill material for all trenches (pipes or duct banks) and structure excavations as shown on the drawings.

1.02 RELATED WORK

- A. As specified in the following divisions:
 - 1. Division 2 - Site Construction

1.03 SUBMITTALS

Submit the following

- 1. Samples and/or Product Data
 - a. Samples:
 - (1) Comply with Section XI of the General Conditions.
- 2. Test Reports
 - a. Comply with Section VI of the General Conditions.
 - b. Submit test reports necessary to show compliance with the Contract Documents.
- 3. Manufacturer's Certification
 - a. Submit certification that products meet or exceed the specified requirements.

1.04 WARRANTIES AND GUARANTEES

- A. The Contractor shall repair or replace defective materials and workmanship during the Contract Period and for one (1) year from the date of Substantial Completion of the project, at no additional cost to the City, when so directed by the Commissioner or the Chief Procurement Officer. Any equipment, materials, and workmanship repaired or replaced shall have the warranty period extended for a period of one (1) additional year from the date of repairs and/or replacements.
- B. The Contractor shall operate and maintain all Work including, but not limited to, mechanical, electrical, controls, temporary systems, etc., until such time that Substantial Completion is obtained. To achieve Substantial Completion, turn-over of as-built documents, operations and maintenance manuals, and operator training are required to be complete.
- C. The warranty period for all systems and equipment shall commence at substantial completion of the project, and not at the time of delivery, installation, or initial startup.
- D. Refer to Part Two of Three, General Conditions for additional requirements.

PART 2 PRODUCTS

2.01 FINE AGGREGATE

- A. Fine aggregate for trench backfill must consist of natural sand or washed crushed limestone having FA-6 gradation as specified in Section 1003 of the SSRBC, Illinois Department of Transportation, latest edition.

2.02 BEDDING MATERIAL

- A. Bedding material except for cathodically protected pipes, must be gravel, crushed gravel, crushed stone or crushed recycled concrete having a CA-7 or CA-11 gradation conforming to Section 1004 of the Standard Specifications for Road and Bridge Construction, latest edition, by Illinois Department of Transportation (SSRBC). Bedding Material for cathodically protected (coated and wrapped) pipes must be pea gravel having a CA-16 gradation.

2.03 STABILIZATION STONE

- A. Stabilization stone must be crushed stone or crushed recycled concrete having CA-1 gradation conforming to Section 1004 of the SSRBC, latest edition.

PART 3 EXECUTION

3.01 GENERAL

- A. All trenches and excavations must be backfilled by the end of the day in which pipes have been installed, unless other protection of the pipe is directed. The backfill material must be as specified herein. Backfill materials and compaction procedures must be approved by the Commissioner. In all backfilling, any compressible or destructible rubbish and refuse must be removed from the excavated space before backfilling is started, except that sheeting and bracing must be left in place or removed as the work progresses as specified or directed.
- B. Trench excavated with sloped or benched wall must be backfilled for the full width of the trench, as herein specified.
- C. All backfill materials must be placed longitudinally along the trench. The backfill material must be brought up evenly on each side of the pipe or duct.

3.02 TRENCH STABILIZATION

- A. If the Commissioner finds that the materials encountered at the elevations specified are unstable and not suitable or in case it is found desirable or necessary to go to an additional depth, the excavation must be carried to such additional depth as the Commissioner may direct in writing. The Contractor must refill such excavated space with Stabilization Stone. Stabilization Stone must be compacted to a firm condition.

3.03 BEDDING

- A. The pipe laid in trenches must be bedded in accordance with the details shown on the Plans. Bedding material must be as shown, specified or directed. Bedding must be to a minimum of spring line of the pipe. The bedding material must be placed over the stabilization stone or trench subgrade as applicable.

3.04 FINE AGGREGATE

- A. The fine aggregate for trench backfill must be brought up evenly on each side of the pipe or structure to an elevation 1 foot over the top of the pipe. If the trench is to be under pavement, or within 2 feet of the proposed, future or existing pavement edge, then placement and compaction of the fine aggregate trench backfill must continue until the top of subgrade is reached. If the trench is not under, or adjacent to, existing, proposed or future pavement, then acceptable fill must be placed and compacted from an elevation one foot over the top of the pipe to top of subgrade.

3.05 MATERIAL PLACEMENT

- A. Material used as stabilization, bedding, or fine aggregate trench backfill to one foot over the top of the pipe must be placed by hand in uniform layers not greater than 6 inches in loose thickness and thoroughly compacted in place. Special

care must be taken to secure thorough compaction under the haunches and at the sides of the pipe.

- B. Each layer of bedding material and fine aggregate backfill to one foot over the top of pipe must be thoroughly tamped and compacted in place with vibratory methods to at least 90% of the maximum laboratory dry density as determined in accordance with ASTM D 1557.
- C. If the backfill placed from one foot above the pipe is fine aggregate trench backfill, it must be placed in uniform layers not greater than 9 inches in loose thickness and thoroughly compacted in place with suitable equipment to at least 95% of the maximum laboratory dry density as determined in accordance with ASTM D 1557 or as approved by the Commissioner. Each lift of Approved Backfill Material must be within $\pm 2\%$ of optimum moisture content before the succeeding lift is placed. If the backfill is approved, backfill material must be placed in uniform layers not greater than 12 inches in loose thickness and each layer compacted to at least 85% of the maximum laboratory dry density as determined in accordance with ASTM D 1557 or as approved by the Commissioner.
- D. The suitability of compacting equipment must be acceptable to the Commissioner. Tamping rollers (generally referred to as Sheepsfoot Rollers) will be considered the proper type of equipment for compaction of cohesive soils and vibratory/mechanical tamping equipment will be applicable for compacting granular soils. In all cases, the adequacy of the equipment will be determined by the Commissioner.

3.06 GRADING

- A. Final grading must be performed in accordance with the completed contour elevations and grades shown and must be made to blend into the existing or plan ground surfaces. All finished grading surfaces must be left smooth and free to drain. Finish grades must be brought to elevations within plus or minus 0.10 foot of elevations or contours shown.
- B. The top six inches of trench fill in areas to be landscaped must be topsoil in accordance with Section 02920 -Topsoiling.
- C. Where necessary or where shown, final grading must be extended to insure that water must be carried off and the site area left smooth and free from depressions holding water.
- D. Movement of construction machinery over a pipe or trench will be at the Contractor's risk. Any pipe damaged thereby must be replaced at the expense of the Contractor.

3.07 SETTLEMENT

- A. Any depression which may develop from settlement in backfilled areas within one year after the work is fully completed and accepted must be the responsibility of the Contractor. The Contractor must provide, as needed, at his own expense, additional backfill material, pavement base replacement, permanent pavement repairs or replacement and must perform the necessary reconditioning and restoration work to bring such depressed areas to proper grade as approved by the Commissioner.

3.08 TESTING

- A. The Contractor will be responsible for all Quality Control testing of all material and backfill operations. Trench backfill compaction must be tested and monitored by the Contractor a minimum of 1 test per 100 lineal feet of trench, each lift, a minimum of 3 tests per lift, or as directed by the Commissioner. The Commissioner will perform quality assurance inspection and tests, with the assistance of the Contractor.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. No separate measurement will be made for Trench Backfill.

PART 5 BASIS OF PAYMENT

5.01 BASIS OF PAYMENT

- A. No separate payment will be made for Trench Backfill. Payment for this work is incidental to the Contract.

END OF SECTION 02316

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STORM SEWER

SECTION 02601

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. Furnish and install all labor, materials, tools and equipment required for furnishing and installing Storm Sewer(s) including, but not necessarily limited to trench excavation and disposal of all unsuitable material; special fabrication and field installation of pipe; connections to existing catch basins, inlets and manholes; modifications of existing sewers; bedding, backfilling of trenches with suitable trench excavated material; and other appurtenant or related work associated with the construction of storm sewers.
- C. Install products and materials (furnished in other Sections) as shown on the Drawings.
- D. Except as modified herein, the work must conform to Section 550 of the Standard Specifications for Road and Bridge Construction, currently latest edition, by the Illinois Department of Transportation (SSRBC).

1.02 REFERENCES:

- A. ASTM C76 – Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.
- B. ASTM C425 – Standard Specification for Compression Joints for Vitrified Clay Pipe and Fittings.
- C. ASTM C443 – Standard Specification for Joints for Circular Concrete Sewer and Culvert Pipe, using Rubber Gaskets.
- D. ASTM C700 – Standard Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated.

1.03 SUBMITTALS:

- A. Prior to performing the Work, the Contractor must submit shop Drawings in accordance with the General Conditions for review and approval by the Commissioner.

PART 2 PRODUCTS

2.01 GENERAL

- A. The pipe must be type and class called for on the Drawings and must be in accordance with the following requirements as applicable.

2.02 MATERIAL:

- A. For pipe sizes 21 inches or smaller, extra strength vitrified clay pipe per ASTM C-700 must be used.
- B. For pipe sizes 24 inches or larger, reinforced concrete pipe per ASTM C-76 must be used.
- C. Rubber-type gaskets joints for reinforced concrete pipe must conform to ASTM C-443.
- D. Factory fabricated jointing connections using materials having resilient properties on vitrified clay pipe must conform to the requirements of ASTM C-425.

2.03 DISSIMILAR PIPE COUPLING:

- A. When one pipe material is to join another pipe material and the change in pipe material will not occur at a manhole, the dissimilar pipes must be joined using a "band-seal" adapter coupling.

PART 3 EXECUTION

3.01 PLACEMENT:

- A. Sewers must be laid to the lines and grades shown on the Contract Drawings.

3.02 EQUIPMENT:

- A. All equipment necessary and required for proper construction of storm drains must be on the Project, in first-class working condition, and approved by the Commissioner before construction is permitted to start.
- B. The Contractor must provide appropriate hoisting equipment to handle the pipe while unloading and placing it in the final position without damage to the pipe.
- C. The Contractor must provide vibratory means to obtain the required compaction of the aggregate pipe bedding and backfill as specified in Section 02316 – Trench Backfill of these Specifications.

3.03 EXCAVATION

- A. The width of the pipe trench must be sufficient to permit satisfactory jointing of the pipe and thorough tamping of the bedding material under and around the pipe, but not be less than the external diameter of the pipe plus 6 inches on each side. The trench walls must be approximately vertical except where safety considerations require benching of the trench walls.

- B. Where rock, hardpan, or other unyielding material is encountered, it must be removed below the foundation grade for a depth of at least 4 inches. The excavation below grade must be backfilled with bedding stone in accordance with Section 02316 – Trench Backfill and compacted in layers not over 6 inches in uncompacted depth to form a uniform but yielding foundation.
- C. Where a firm foundation is not encountered at the grade established, due to soft, spongy, or other unstable soil, the unstable soil must be removed and replaced with stabilization stone for the full trench width. The Commissioner must determine the depth of removal necessary. The granular material must be compacted to provide adequate support for the pipe in accordance with Section 02316 – Trench Backfill.
- D. The excavation for pipes that are placed in embankment fill must not be made until the embankment has been completed to a height above the top of the pipe as shown on the Drawing.
- E. The Contractor must construct such trench bracing, sheathing, or shoring necessary to perform and protect the excavation as required for safety and conformance to governing laws. The bracing, sheathing, or shoring must not be removed in one operation but must be done in successive stages to prevent overloading of the pipe during backfilling operations. The cost of bracing, sheathing, or shoring, and the removal of same, must be included in the unit price for the pipe.

3.04 BEDDING AND BACKFILLING:

- A. The pipe bedding and backfilling must conform to the details as shown on the Drawings and in accordance with Section 02316 – Trench Backfill.

3.05 LAYING PIPE:

- A. The Contractor must provide the necessary lines and supports to insure installation of the pipe to line and grade. The Contractor's facilities for lowering the pipe into the trench must be such that neither the pipe nor the trench will be damaged or disturbed.
- B. The Commissioner will inspect all pipe before it is laid, and reject any section that is damaged by handling or is defective to a degree which must materially affect the function and service of the pipe.
- C. The pipe laying must begin at the lowest point of the trench and proceed upgrade. The lower segment of the pipe must be in contact with the bedding throughout its full length. Bell or groove ends of rigid pipes must be placed facing upgrade.
- D. Paved or partially lined pipe must be placed so that the longitudinal center line of the paved segment coincides with the flow line.

- E. Elliptical and elliptically reinforced pipes must be placed with the manufacturer's top of pipe mark within five degrees of a vertical plane through the longitudinal axis of the pipe.
- F. Pipe must not be laid on frozen ground. The Contractor must provide for the temporary diversion of flows in order to permit installation of the pipe under dry conditions.

3.06 JOINING PIPE:

- A. Joints must be made to form a flexible watertight seal. Gaskets must be installed according to the manufacturer's requirements. The method of joining pipe sections must be such that the ends are fully entered and the inner surfaces are reasonably flush and even.

3.07 CONNECTIONS TO STRUCTURES AND PIPES:

- A. Where the Drawings show connections to existing or proposed pipe or structures, these connections must be watertight and made so that a smooth uniform flow line must be obtained throughout the drainage system.

3.08 INSPECTION:

- A. Prior to final acceptance of the drainage system, the Commissioner, accompanied by the Contractor, must make a thorough inspection by an appropriate method of the entire installation. Defects in material or workmanship or obstruction to the flow in the pipe system must be corrected by the Contractor without additional compensation as directed by the Commissioner.
- B. For pipes smaller than 72 inches in diameter, an internal television inspection must be performed by the Contractor following the completion of installation and backfill compaction testing showing a complete, clean installation. Any debris or deficiencies encountered must be cleaned or repaired, to the satisfaction of the Commissioner, and the segment(s) must be re-televised showing a complete, clean installation. The television camera used must be high-resolution color, must be equipped with a revolving head, and must be equipped with a footage counter which records on the video recording. Video recordings in DVD format must be made of the internal inspection and submitted to the Commissioner. The costs associated with televising must be considered incidental and no additional payment will be made for this work.
- C. For pipes 72 inches and larger in diameter, a visual inspection must be performed by the Contractor following the completion of installation and backfill compaction testing. The Contractor must obtain the service of an independent inspection company qualified to perform the visual inspection. The Contractor must obtain the approval of the Commissioner before employing the inspection company. The costs of the inspection will be considered incidental to the pipe installation and no additional payment will be made for this work.

3.09 IDENTIFICATION:

- A. Types, sizes and classes of pipes must be as shown on the Contract Drawings, and as provided herein.

3.10 DISPOSAL OF MATERIALS:

- A. Surplus materials must be disposed of in accordance with the Specifications.

PART 4 METHOD OF MEASUREMENT

- 4.01 The length of pipe must be measured in lineal feet of pipe in place, completed, and accepted. It must be measured along the centerline of the pipe from end or inside face of structure to the end or inside face of structure, whichever is applicable. The several classes, types and sizes must be measured separately. All fittings must be included in the footage as typical pipe sections in the pipeline being measured.

PART 5 BASIS OF PAYMENT

- 5.01 Payment must be made at the Contract unit price per lineal foot for each kind of pipe of the type, class, and size designated. The price must be full compensation for furnishing all materials and for all preparation, excavation, disposal of excavation (including unclassified excavation), pavement sawcutting, installation of these materials, backfilling and compaction; and for all labor, equipment, tools, and all work necessary to complete the item.

- 5.02 Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--|------|
| 02601-5.01 | VITRIFIED CLAY PIPE (VCP), 8-INCH, EXTRA STRENGTH, TYPE 2 | FOOT |
| 02601-5.02 | VITRIFIED CLAY PIPE (VCP), 12-INCH, EXTRA STRENGTH, TYPE 2 | FOOT |

END OF SECTION 02601

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DRAINAGE SCUPPERS, DS-12
SECTION 02601A

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT BASE SHEET | TITLE |
|-----------------|-------------------------|
| DS-12 | DRAINAGE SCUPPER, DS-12 |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Shop Drawings
 - 2) Product Data
 - 3) Test Reports
 - 4) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per each.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--------------------------|------|
| 02601A-5.01 | DRAINAGE SCUPPERS, DS-12 | EACH |

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DRAINAGE SYSTEM
SECTION 02601B

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT GBSP | TITLE |
|-----------|---|
| NO. 12 | DRAINAGE SYSTEM, Revised: June 24, 2015 |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Shop Drawings
 - 2) Product Data
 - 3) Test Reports
 - 4) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per lump sum.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|-----------------|-------|
| 02601B-5.01 | DRAINAGE SYSTEM | L SUM |

IDOT GBSP NO. 12 - Drainage System

Effective: June 10, 1994

Revised: June 24, 2015

Description. This work shall consist of furnishing and installing a bridge drainage system as shown on the plans, including all piping, fittings, support brackets, inserts, bolts, and splash blocks when specified.

Material. The pipe and fittings shall be reinforced fiberglass according to ASTM D 2996 RTRP with a 30,000 psi (207 MPa) minimum short-time rupture strength hoop tensile stress. The reinforced fiberglass shall also have an apparent stiffness factor at 5 percent deflection exceeding 200 cu in.-lbf/sq. in. (22.6 cu mm-kPa) and a minimum wall thickness of 0.10 in. (2.54 mm). The adhesive for joining pipe and fittings shall be as recommended by the manufacturer. All pipe supports and associated hardware shall be hot dip galvanized according to AASHTO M 232 (M 232M). The fiberglass pipe and fittings furnished shall be pigmented through out, or have a resin-rich pigmented exterior coat, specifically designed for overcoating fiberglass, as recommended by the manufacturer. The color shall be as specified by the Engineer. The resin in either case shall have an ultraviolet absorber designed to prevent ultraviolet degradation. The ultraviolet protection shall be designed to withstand a minimum of 2,500 hours of accelerated weathering when tested in conformance with the requirements in ASTM Designation: G 154. Lamps shall be UV-8 (313 nm wavelength). The resting cycle shall be 4 hours of ultraviolet exposure at 140°F (60°C), and then 4 hours of condensate exposure at 120°F (49°C). After testing, the surface of the pipe shall exhibit no fiber exposure, crazing, or checking, and only a slight chalking or color change. The supplier shall certify the material supplied meets or exceeds these requirements.

Design. The drainage system shall be designed as an open system with allowances for the differential expansion and contraction expected between the superstructure and the substructure to which the drainage system is attached.

Installation. All connections of pipes and fittings shown on the plans to facilitate future removal for maintenance cleanout or flushing shall be made with a threaded, gasketed coupler or a bolted gasketed flange system. Adhesive bonded joints will be permitted for runs of pipe between such connections. The end run connection shall feature a minimum nominal 6 in. (150 mm) female threaded fiberglass outlet. Straight runs may utilize a 45 degree reducing saddle bonded to the pipe. The female outlet shall be filled with a male threaded PVC plug.

Runs of pipe shall be supported at spacings not exceeding those recommended by the manufacturer of the pipe. Supports that have point contact or narrow supporting areas shall be avoided. Standard slings, clamps, clevis hangers and shoe supports designed for use with steel pipe may be used. A minimum strap width for hangers shall be 1 1/2 in. (40 mm) for all pipe under 12 in. (300 mm) in diameter and 2 in. (50 mm) for diameters 12 in. (300 mm) or greater. Straps shall have 120 degrees of contact with the pipe. Pipes supported on less than 120 degrees of contact shall have a split fiberglass pipe protective sleeve bonded in place with adhesive.

All reinforced fiberglass pipe, fittings, and expansion joints shall be handled and installed according to guidelines and procedures recommended by the manufacturer or supplier of the material.

Basis of Payment. This work will be paid for at the contract lump sum price for DRAINAGE SYSTEM.

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GEOCOMPOSITE WALL DRAIN
SECTION 02601C

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|-------------------------|
| 591 | GEOCOMPOSITE WALL DRAIN |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Product Data
 - 2) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per square yard.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|-------------------------|-------|
| 02601C-5.01 | GEOCOMPOSITE WALL DRAIN | SQ YD |

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MANHOLES AND CATCH BASINS

SECTION 02621

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. Furnish and install, reconstruct or adjust Manholes and Catch Basins in accordance with these Specifications at the specified landside locations and conforming to the lines, grades, and dimensions shown on the Plans. All work must conform to Section 602 of the Standard Specifications for Road and Bridge Construction, latest edition by the Illinois Department of Transportation (SSRBC).
- C. Install products and materials as shown on the Drawings.

1.02 SUBMITTALS:

- A. Prior to performing the Work, the Contractor must submit shop Drawings in accordance with the General Conditions for review and approval by the Commissioner.

PART 2 PRODUCTS

2.01 CONCRETE:

- A. Plain and reinforced concrete used in structures, connections of pipes with structures, and the support of structures or frames must conform to the requirements of Section 03300A - Concrete Structures except that the concrete must have a compressive strength of 4500 psi after 28 days.

2.02 MORTAR:

- A. The mortar must be composed of 1 part of Portland cement and 2 parts of mortar sand by volume. The Portland cement must conform to the requirements of AASHTO M 85. The sand must conform to the requirements of AASHTO M 45. Hydrated lime may be added to the mixture of sand and cement in an amount not to exceed 15% of the weight of cement used. The hydrated lime must meet the requirements of ASTM C 206. The water must be clean and free of deleterious amount of acids, alkalis, or organic material. If the water is of questionable quality, it must be tested in accordance with AASHTO T 26.

2.03 PRECAST CONCRETE PIPE MANHOLE SECTIONS:

- A. Precast concrete pipe manhole sections must conform to the requirements of ASTM C76, Class 11. Unless otherwise specified, the risers and offset cone

sections must have an inside diameter of not less than 36 inches no more than 48 inches. Adjustment rings must conform to ASTM C 478.

2.04 FRAMES, COVERS, AND GRATES:

- A. Castings for use at landside locations must conform to the requirements for Ductile Iron castings and requirements of ASTM A-536, and must be capable of supporting an H-20 loading. Acceptable manufacturers are Neenah Foundry Company, East Jordan Iron Works, Inc. and Campbell Foundry.
- B. All castings or structural steel units must conform to the dimensions shown on the Plans and must be designed to support the loadings specified.
- C. All lids must be marked "STORM SEWER", "SANITARY", or "WATER", whichever is appropriate, in 2 inch raised capital letters.
- D. Prior to shipment, all castings must be thoroughly cleaned. After fabrication, structure steel units must be galvanized to meet the requirements of AASHTO M 111.

2.05 STEPS:

- A. The steps or ladder bars must be gray aluminum. The steps must be the size, length, and shape shown on the Plans.

2.06 GRADE RINGS:

- A. Pre-cast concrete grade rings must meet the requirements of ASTM C478.

2.07 BEDDING MATERIAL:

- A. Bedding under bases or foundations must be fine aggregate trench backfill in accordance with Section 02316 - Trench Backfill.

PART 3 EXECUTION

3.01 GENERAL:

- A. The Contractor must do all excavation of structures and structures footings to the lines and grades or elevations shown on the Contract Drawings. The excavation must be of sufficient size to permit the placing of the full width and length of the structure or structure footing shown.
- B. Boulders, logs, or any other objectionable material encountered in excavation must be removed. All rock or other hard foundation material must be cleaned of all loose material and cut to a firm surface. Rock or other unsuitable material must be removed and replaced with fine aggregate trench backfill. The

foundation for the structure must be undisturbed ground with a minimum of 6 inches of fine aggregate trench backfill.

- C. The Contractor must furnish and install all temporary earth retention necessary to implement and protect the excavation and the structures as required for safety or conformance to governing laws. The temporary earth retention system will be included in this work.
- D. Unless otherwise provided, temporary earth retention system involved in the construction of this item must be removed by the Contractor after the completion of the structure. Removal must be effected in a manner which will not disturb or mar finished masonry.
- E. After each excavation is completed, the Contractor must notify the Commissioner. No concrete, reinforcing steel, formwork or pre-cast structures will be placed until the Contractor verifies the depth & location of the structure and bearing of the foundation material to the satisfaction of the Commissioner. Excavation for each structure is incidental and will not be paid for separately.
- F. The Contractor must verify the required minimum bearing beneath the concrete structure. Contractor QC to verify bearing to 3 feet minimum or to depth as directed by the Commissioner. The cost of verifying the required bearing will be considered included and incidental to the price of the structure.
- G. Where suitable bearing conditions is not encountered at subgrade indicated for footings, foundations and manholes/catch basins, the Commissioner may direct additional excavation and backfill with stabilization stone as necessary.

3.02 CONCRETE STRUCTURES:

- A. Concrete structures must be built on prepared foundations, conforming to the dimensions and form indicated on the Contract Drawings. The construction must conform to the requirements specified in Section 03300A - Concrete Structures. Any reinforcement required must be placed as indicated on the Contract Drawings and must be approved by the Commissioner before the concrete is poured.
- B. All invert channels must be constructed and shaped accurately so as to be smooth, uniform, and cause minimum resistance to flowing water. The interior bottom must be sloped downward toward the outlet.

3.03 PRE-CAST REINFORCED CONCRETE STRUCTURES:

- A. Pre-cast reinforced concrete structures must be installed on prepared or previously constructed slab foundations and must conform to the dimensions and locations shown on the Contract Drawings. All pre-cast reinforced concrete sections necessary to build a complete structure must be furnished. The different sections must fit together readily, and all jointing and connections must be cemented with mortar. The top of the upper precast concrete member must be suitably formed and dimensioned to receive the metal frame and cover or grate, or other cap, as required. Provision must be made for any connections for lateral pipe, including drops and leads that may be precast in the structure. The flow lines must be smooth, uniform, and cause minimum resistance to flow. The steps which are embedded or built into the side walls must be aligned and placed at vertical intervals at 16 inches on center or as indicated in the Plans.

3.04 INLET AND OUTLET PIPES:

- A. Inlet and outlet pipes must extend through the walls of the structure for a sufficient distance beyond the outside surface to allow for connection but must be cut off flush with the wall on the inside surface, unless otherwise directed.

3.05 PLACEMENT AND TREATMENT OF CASTINGS, FRAMES, AND FITTINGS:

- A. All castings, frames, and fittings must be placed in the positions indicated on the Plans or as directed by the Commissioner, and must be set true to line and to correct elevation, all anchors or bolts must be in place and position before the concrete or mortar is placed. The unit will not be disturbed until the mortar or concrete has set.
- B. When frames or fittings are to be placed upon previously constructed masonry, the bearing surface or masonry must be brought true to line and grade and must present an even bearing surface in order that the entire face or back of the unit must come in contact with the masonry. The unit must be set in mortar beds and anchored to the masonry as indicated on the Contract Drawings or as directed and approved by the Commissioner. All units must be set firm and secure.
- C. After the frames or fittings have been set in final position and the concrete or mortar has been allowed to harden for 7 days, then the grates or covers must be placed and fastened down.
- D. When pre-cast concrete grade rings are used to reset frames to a new elevation, no more than four rings may be used. Total adjustment must be no more than 12 inches.

3.06 INSTALLATION OF STEPS:

- A. When steps are required with pre-cast concrete structures, they must be cast into the sides of the concrete structures at the time the sections of the structure are

manufactured or the steps may be set in place after the structure is erected by drilling holes in the concrete and cementing the steps in place.

3.07 BACKFILLING:

- A. After a structure has been completed, backfill in accordance with the requirements of the detailed Drawings and Section 02316 - Trench Backfill.
- B. Backfilling must not be placed against any structure until permission is given by the Commissioner. In the case of concrete, such permission will not be given until the concrete has been in place 7 days, or until tests made by the Contractor's QC organization and tested by the Contractor's approved laboratory, subject to the verification by the QA laboratory working under supervision of the Commissioner establish that the concrete has attained or exceeded the strength requirements stated within these Specifications in order to provide a factor of safety against damage or strain in withstanding any pressure created by the backfill or the methods used in placing it.
- C. Backfill will be considered as a subsidiary obligation of the Contractor for the structure involved,

3.08 GENERAL CLEAN-UP:

- A. All rubbish and debris resulting from the Work of this Section must be collected, removed from the site and disposed of legally.
- B. All work areas must be left in a broom clean condition.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Catch basins, manholes, inspection holes and the adjustment of manholes and catch basins must be measured per each for payment.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. The accepted quantities of drainage structures will be paid for at the Contract unit price per each, complete and in place. This price will be full compensation for furnishing all materials and for all preparation, excavation, backfilling and placing of the materials; furnishing and installation of frames and covers, hardwares, and connections to pipes and other structures as may be required to complete the item and shown on the Drawings; and for all labor equipment, tools and all work necessary to complete the structure.

5.02 Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|---|------|
| 02621-5.01 | MANHOLE TYPE A, 3-FOOT DIA (NON-AIRCRAFT LOADING) | EACH |
| 02621-5.02 | INSPECTION HOLE | EACH |
| 02621-5.03 | CATCH BASIN TYEP A, 4-FOOT DIA (NON-AIRCRAFT LOADING) | EACH |

END OF SECTION 02621

ABANDONING EXISTING STORM/SANITARY SEWER SYSTEM AND STRUCTURES
SECTION 02705

PART 1 GENERAL

1.01 DESCRIPTION

- A. This item includes abandoning existing storm or sanitary sewer system by completely filling the abandoned sewers with grout. This item also includes properly backfilling structures with sewer grout or sand.
- B. Work under this Section is subject to the requirements of the Contract Documents.

1.02 RELATED WORK

- A. As specified in the following Sections:
 - 1. Section 02316 – Trench Backfilling
 - 2. Section 02714 – Concrete Pavements

1.03 REFERENCES

- A. SSRBC – Illinois Department of Transportation, 'Standard Specifications for Road and Bridge Construction', latest edition
- B. ASTM C39 Standard Practice for Compressive Strength of Cylindrical Concrete Specimens
- C. ASTM C172 Standard Practice for Sampling Freshly Mixed Concrete
- D. ASTM C495 Standard Test Method for Compressive Strength of Lightweight Insulating Concrete
- E. ASTM C796 Standard Test Method for Foaming Agents Used in Producing Cellular Concrete

1.04 SUBMITTALS

- A. Product Data: Submit product data or certification showing conformance with Specifications.
- B. Sewer grout mix design to be in conformance with the following specifications listed. Mix design must include as a minimum: proportions, gradations, admixtures, certifications, density, and 28 day compressive strengths. Unit weight must be a minimum of 24 – 30 pcf and compressive strength must be 50 psi minimum at 28 days, or as directed by the Commissioner.

- C. Plug/Bulkhead: Submit the method of plugging/bulkheading sewer to be grouted with sewer grout. For pipes greater than 36 inches in diameter, submit design of bulkhead to the Commissioner for approval.

PART 2 PRODUCTS

2.01 MATERIAL

- A. Sewer Grout: Sewer grout to be used for filling the abandoned sewer must consist of a minimum of 1 part of Portland cement, and when required, up to three parts of sand as specified herein. Complete filling of the abandoned sewer must be accomplished by pumping grout.
 - 1. Portland Cement: Must be ASTM C 150, Type I and conform to the requirements of Section 1001 of the SSRBC, latest edition.
 - 2. Fly Ash: If used, pozzolanic admixtures must be fly ash or raw or calcined natural pozzolans meeting the requirements of ASTM C 618, Class C or F.
 - 3. Sand: If used, must be fine aggregate, gradation FA-1 or FA-2 conforming to Article 1003.02 of the SSRBC, latest edition.
 - 4. Water must be fresh, clean, and free from oil, acid, alkali, salts, or organic matter conforming to Section 1002 of the SSRBC, latest edition.
 - 5. Admixtures:
 - a. Provide an approved air entrainment admixture or performed foam.
 - (1) When using an air entrainment admixture, the amount of entrained air shall not be less than 5% or more than 8% of the volume of concrete, or as approved by the Commissioner.
 - a. Air-entraining admixtures must meet the requirements of ASTM C 260.
 - b. Air-entraining admixtures must be added at the mixer in the amount necessary to produce the specified air content.
 - (2) When using a preformed foam admixture, the amount of air must be a minimum of 25% of the volume of the grout. Preformed foam must meet the requirements of ASTM C 796.
 - c. If needed, provide an approved admixture to achieve complete filling of the pipe and improved pumpability.

- B. Portland Cement Concrete: For placing concrete plugs must be in accordance with Section 03300A – Concrete Structures.
- C. Mortar: Cement must conform to the requirements of ASTM C 150, Type I. The sand must conform to the requirements of ASTM C 144.

PART 3 EXECUTION

3.01 FILLING EXISTING SEWERS

- A. The Contractor must fill the existing sewer not remaining in service or being abandoned as indicated in the Drawings or as directed by the Commissioner.
- B. Sewer to be abandoned must be completely filled with sewer grout. Grout must be installed by pumping into the pipe injection port against the opposite plugged/bulkheaded end of the sewer with vent pipe.
- C. Volume calculations must be made and compared to the amount of grout being pumped to insure the sewer pipe is completely filled or that grout is not being lost by entering voids, other defects, or connecting utilities. Cubic yards of grout will be measured using the formula for volume: $V = (3.14 \times r^2 \times L) / 27$, where r is the nominal radius of the sewer in feet and L is the length of pipe filled in feet. If any loss of grout is detected via volume calculations, immediately notify the Commissioner for direction.

3.02 PLUGGING EXISTING SEWERS

- A. Abandoned sewers and drains shown on the Drawings or directed by the Commissioner must be plugged with a PCC plug/bulkhead for a minimum length equal to the diameter of the pipe, or as shown on the Drawings. For pipes greater than 36 inches in diameter, submit design of bulkhead to the Commissioner for approval. Alternately, if approved by the Commissioner, brick and mortar plugs/bulkheads may be approved for certain small diameter pipes.
- B. The utility cap or PCC plug/bulkhead must be made as shown on the Drawings. Form must be tight fitting and composed of non-degradable material. Wooden plugs or forms must not be used. Plug/bulkhead must be sufficiently cured or tight before grouting of pipe can begin as directed by the Commissioner.
- C. Install minimum 2 inches diameter Schedule 40 PVC pipe injection port into plug/bulkhead where grouting is to begin.
- D. Install minimum 2 inches diameter Schedule 40 PVC pipe vent into opposite plug/bulkhead pumping grout against.

3.03 FILLING EXISTING STRUCTURES

- A. The tops of any existing manholes, catch basins, other structures and flared end sections to be abandoned must be removed to an elevation of at least 3.0' below proposed grade or structure must be removed completely, as indicated on the Drawings.
- B. Where the pipe connections are removed, the pipe openings must be securely sealed with concrete and the existing structure backfilled with FA-6 sand compacted to 95% modified proctor ASTM D 1557 per Section X-100, Site Demolition.
- C. Where the pipe connections remain and the intent is to pump grout through and through the structures, the sewer grout used to fill the pipe must be placed in the structure to a point of at least flush with the top of the sewer crown up to a point approximately 6 inches above the sewer crown, in order to function as a PCC plug. The remaining structure must then be backfilled with FA-6 sand compacted to 95% modified proctor ASTM D 1557 per Section X-100, Site Demolition.
- D. Backfill and compact the area above the abandoned structure in accordance with Section 02316 - Trench Backfilling, as applicable, and as directed by the Commissioner.

3.04 FIELD QUALITY CONTROL

- A. The Contractor's qualified QC organization must make a minimum of one set of four (4) 3" x 6" cylinders for each 100 CY of sewer grout placed, or a minimum of one set per day. The compressive strength of an average of four (4) cylinders must be tested at 28 days in accordance with ASTM C495.
- B. The Contractor must make and initially cure and store the test specimens in accordance with ASTM C495. The Contractor must transport and deliver the test specimens to the Commissioner's laboratory for testing. A Chain of Custody form provided by the Commissioner must be used. The Contractor must be responsible for developing a system of recording the initial curing temperatures and this data must be sent to the Commissioner's laboratory with the test specimens. The Commissioner will make the actual tests on the specimens in accordance with ASTM C 39, at no expense to the Contractor.

3.05 DISPOSAL OF MATERIALS

- A. On completion of grouting, remove all waste material, injection ports and vent pipes, and spilled grout from the work area. All material resulting from removal of upper portions of any structures, spilled grout, and other unusable materials must be disposed of by the Contractor legally off the Airport or as directed by the Commissioner.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Filling Existing Sewers – Will be measured in cubic yards of sewer grout installed in the abandoned sewer.
- B. Plugging Existing Sewers – Will not be measured in place for each unit plugged, but considered included in the abandonment.
- C. Filling Existing Manholes, Catch Basins, other Structures – Will not be measured in place for each unit filled, but considered included in the abandonment. No separate measurement will be made for any type of structure.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Existing storm/sanitary sewers to be abandoned and filled will be paid for at the Contract unit price per cubic yard of sewer grout placed into the pipe. Proposed or existing PCC plugs in sewers to be plugged will also be included in this price. This price will be full compensation for furnishing all materials, labor, equipment, tools, and all work necessary to complete this item as specified.
- B. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|------------------------------------|-------|
| 02705-5.01 | ABANDON PIPE IN-PLACE, GROUT SOLID | CU YD |

END OF SECTION 02705

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DUST CONTROL
SECTION 02710

PART 1 DESCRIPTION

1.01 GENERAL

- A. This work consists of the exclusive control of dust resulting from construction operations and is not intended for use in the compaction of earth embankments.

PART 2 PRODUCTS

2.01 GENERAL

- A. Water for the Project is to be obtained in accordance with the requirements of Article XIV. J, 2b of Part Two, General Conditions.

PART 3 EXECUTION

3.01 GENERAL

- A. Prior to the start of construction, the Contractor must submit a plan and methods to alleviate and prevent dust nuisance originating from earthwork and construction operations from within the Project. Work will not commence until dust control plan has been accepted and approved by the Commissioner.
- B. Dust will be controlled by the uniform application of sprinkled water and will be applied only when advised by the Commissioner in a manner meeting the Commissioner's approval.
- C. All equipment used for this work must meet the Commissioner's approval.
- D. The Contractor will investigate the availability of an adequate supply of suitable water, make all arrangements (including permit if required) for the purchase of the water and provide necessary facilities to furnish water for use during construction, solely at the Contractor's expense. Water may be obtained from creeks and streams on the Airport property. The availability and quality of the water obtained from these sources is not guaranteed.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Dust Control will not be measured separately for payment, but will be considered as included in the overall Contract price.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. All costs associated with meeting these requirements will not be paid for separately but will be considered included in the overall Contract price.

END OF SECTION 02710

CONCRETE PAVEMENTS

SECTION 02714

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. Furnish and install all Concrete Pavement work as shown on the Drawings, and as specified herein, including but not limited to the following:
 - 1. PCC concrete pavement (plain jointed, jointed, or continuously reinforced)
 - 2. Concrete curb and gutter
 - 3. Concrete sidewalk
 - 4. PCC Concrete for booth island
 - 5. Curing and sealing concrete.
 - 6. Expansion joints.
- C. Install products and materials (furnished in other Sections) as shown on the Drawings.

1.02 RELATED WORK:

- A. (Not Used)

1.03 REFERENCES:

- A. (Not Used)

1.04 SUBMITTALS:

- A. Submit the following
 - 1. Samples and/or Product Data
 - a. Product Data
 - b. Samples
 - (1) Curing material, 1 pint, or 12" x 12" sheet.
 - (2) Joint filler, 12" length of each type.
 - (3) Concrete Mix Design.
 - 2. Test Reports
 - a. Submit test reports necessary to show compliance with the Contract Documents.

- b. The Contractor must employ an approved Quality Control (QC) testing laboratory which must make tests and perform inspection in accordance with these Specifications, at no cost to the Commissioner including:
 - (1) Laboratory Test Report.
 - (2) Batch Plant Inspection Report.
3. Manufacturer's Certification
 - a. Submit certification that products meet or exceed the specified requirements.

1.05 QUALITY CONTROL:

A. Concrete Quality:

1. The Contractor must employ, at his expense, an independent Quality Control (QC) testing laboratory, approved by the Commissioner, meeting the requirements of ASTM C1077, to design the mix of concrete required in accordance with the Specifications and Drawings. Mix designs prepared by Concrete Suppliers must be tested and verified for compliance with the Specifications by the independent QC testing laboratory.
2. No concrete must be placed until mix designs and 7 and 28 day test results are submitted by the Contractor and accepted by the Commissioner.
3. The adequacy of a design must be verified by QC tests on a minimum of 6 cylinders; 2 tested at 3 days, 2 tested at 7 days and 2 at 28 days, in accordance with ASTM C 192 and C-39; by slump test for the first two loads, the last load, every 50 cubic yards, and every time cylinder samples are taken in accordance with ASTM C 143, air test for the first two loads, the last load, every 50 cubic yards, and every time cylinder samples are taken in accordance with ASTM C 231, and temperature test for the first two loads, the last load, every 50 cubic yards, and every time cylinder samples are taken in accordance with ASTM C 1064. The number of tests required must be one (1) set of specimens for each day's placement of each 100 cu yards of concrete, or fraction thereof. The Contractor must make and initially cure and store the test specimens in accordance with ASTM C31. The Contractor's technician preparing the specimens must be currently certified to perform the required concrete sampling and testing. The Contractor must transport and deliver the test specimens to the Commissioner's laboratory for testing using a Chain of Custody form provided by the Commissioner. The Contractor must be responsible for developing a system of recording the initial curing temperatures and this data must be sent to the Commissioner's laboratory with the test specimens. The Commissioner will make the actual tests on the specimens in accordance with ASTM C39 at no expense to the Contractor.

4. If at anytime during construction the concrete resulting from the approved mix design proves to be unsatisfactory for any reason, such as lack of workability, of insufficient strength, the Contractor must immediately notify the QC testing laboratory and the Commissioner. The QC laboratory must verify the deficiency with additional testing and modify the design, subject to the Commissioner's approval, until a satisfactory concrete is obtained.
5. Strength requirements of concrete must be as noted on the Drawings. Concrete must be proportioned to achieve an average strength of 500 psi higher than design strength shown. If no design strength is shown, the design strength of the concrete must be 4000 psi at 28 days.
6. In cases where 28 day strength of cylinders falls below the required strength, the Commissioner will have the right to require core tests to be made on portions of concrete poured represented by the cylinders, at the Contractor's expense. Any portion of concrete work failing to meet required core tests must be removed and replaced with satisfactory work at no additional cost to the City. In all cases where strength of the laboratory control cylinders, shown by these tests for any portion of concrete poured falls below the minimum ultimate compressive strengths specified, the Commissioner will have the right to order a change in mix or in water content for remaining portions of pavement and to require conditions of temperature and moisture necessary to secure required strengths.
7. When an approved water reducing admixture is used in accordance with manufacturer's recommendations, cement requirements may be reduced. Mix designs must indicate use of admixtures.
8. Slump for Portland Cement Concrete (PCC) pavement must be $\frac{3}{4}$ inch to 1-1/2 inches; except that a slump above 1-1/2" may be used, up to a maximum of 3 inches, provided that the mixture's water/cement ratio does not exceed 0.45. Concrete mixes containing plasticizers must have a maximum slump of 8". The testing laboratory retained by the Commissioner will have the right to reject any concrete which arrives at job site in excess of specified slump. No water will be added to design mix unless as directed in writing by Commissioner's representative. Slump must be determined in accordance with ASTM C 143.
9. All concrete exposed to weather or in contact with earth or backfill must be air-entrained. Air-entrained concrete must be made with an air-entraining admixture. Air content must be within limits of 5 to 8 percent, net at time of placement. Air content must be determined in accordance with ASTM C 231.
10. Minimum cementitious content for PCC pavement must be 535 pounds per cu. yd. of central mixed concrete. Fine aggregate will not be less than $\frac{1}{3}$, not more than $\frac{1}{2}$ of total aggregate. Unless otherwise specified, the maximum water/cement ratio for normal weight concrete must be 0.45. When fly ash, ground granulated blast furnace slag, or microsilica are

used as part of the cement in a concrete mix, the water/cement ratio will be based on the total cementitious material contained in the mixture.

11. A plasticizing admixture may be used when approved by the Commissioner for the purpose of reducing water requirements for a given consistency and strength of concrete and for increasing workability. Mixture must be used in accordance with manufacturer's recommendations. A maximum reduction in cement content of ½ sack of cement per cubic yard may be made, provided all other requirements are met.
12. The temperature of the mixed concrete must not be less than 50 degrees F and not more than 90 degrees F at the time of placement. Temperature must be determined in accordance with ASTM C 1064.

B. Perform Work in accordance with the latest edition, of the appropriate divisions, of the following:

1. ACI 311.1R "ACI Manual of Concrete Inspection".
2. ACI 304R "Guide for Measuring, Mixing, Transporting and Placing Concrete", except minimum cement content must be herein specified.
3. CSI "Manual of Standard Practice"
4. ACI 318 "Building Code Requirements for Structural Concrete".
5. ASTM C 94 "Specifications for Ready Mixed Concrete".
6. ACI 305R "Hot Weather Concreting".
7. ACI 306R "Cold Weather Concreting".
8. ACI 308R "Guide to Curing Concrete".
9. ACI 309R "Guide to Consolidation of Concrete".
10. ACI 347 "Guide to Formwork for Concrete".

11. "Standard Specifications for Road and Bridge Construction" prepared by the Illinois Department of Transportation latest edition is a separate book.

The "Standard Specifications for Road and Bridge Construction" is referred to in the following articles as the "Standard Specifications" and except as may be otherwise stated, the work to be done under this Section must conform to the requirements of said "Standard Specifications". Contractor's field office and laboratory is not a requirement.

- a. Where the "Standard Specification" refers to the "Engineer", it must be understood to mean "Commissioner", except in cases where it is deemed to be QC testing by the Contractor.
- b. Unless otherwise noted on Drawings or specified, the applicable articles of the following Sections of the "Standard Specifications" must govern:
- c. Sections 420, 423 and 424.

(Note: Articles of the SSRBC covering method of measurement and basis of payment are not applicable.)

12. Perform work in accordance with Section 01400 Contractor QC Program for Building Projects.

1.06 DELIVERY, STORAGE AND HANDLING:

- A. (Not Used)

1.07 WARRANTIES AND GUARANTEES:

- A. The Contractor shall repair or replace defective material and workmanship during the Contract period and for one (1) year from the date of Substantial Completion of the project, at no additional cost to the City, when so directed by the Commissioner or the Chief Procurement Officer. Any equipment, materials, and workmanship repaired or replaced shall have the warranty period extended for a period of one (1) additional year from the date of repairs and/or replacements.
- B. The Contractor shall operate and maintain all Work including, but not limited to, mechanical, electrical, controls, temporary systems, etc., until such time that Substantial Completion is obtained. To achieve Substantial Completion, turn-over of as-built documents, operations and maintenance manuals, and operator training are required to be complete.
- C. The warranty period for all systems and equipment shall commence at substantial completion of the project, and not at the time of delivery, installation, or initial startup.
- D. Refer to Part Two of Three (General Conditions), Section VI (Quality of Workmanship, Equipment and Materials), Paragraph F (Warranties) for additional requirements.

1.08 EXTRA MATERIALS AND SPARE PARTS:

A. (Not Used)

1.09 ENVIRONMENTAL REQUIREMENTS:

A. (Not Used)

1.10 SPECIAL REQUIREMENTS:

A. Temperatures:

1. When hot weather conditions as defined in ACI 305 exist, place and cure concrete in accordance with same.
2. When cold weather conditions as defined in ACI 306 exist, place and cure concrete in accordance with requirements of same.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. Portland Cement - ASTM C 150, Type I cement; or Type III (high-early strength cement) as approved by the Commissioner.
- B. Fly Ash – ASTM C 618
- C. Aggregate for Normal Weight Concrete - All fine and coarse aggregate must conform to IDOT SSRBC Articles 1003.02 and 1004.02, respectively.
 1. Fine Aggregates - Natural hard clean sand.
 2. Coarse Aggregates - Crushed stone or gravel.
- D. Water - Clean, fresh, potable.
- E. Welded Wire Fabric - ASTM A1 85.
- F. Admixtures - Concrete admixtures must comply with ASTM C 494 (Water reducing) or ASTM C 260 (Air Entraining), produced by recognized manufacturers subject to Commissioner's approval.
 1. Air Entraining Admixture - ASTM C 260, "Air Mix" (The Euclid Chemical Company); "MB-VR" (Master Builders); "Darex" (W.R. Grace & Co.); "Sika AER" (Sika Chemical Company); or approved equal. Add only to normal Portland cement concrete to meet requirements specified for air content.
 2. Water Reducing Admixture - ASTM C 494, Type A, and not containing any; chloride ions added during manufacture, "Eucon WR-75" (The Euclid Chemical Company); "Pozzolith" 122N (Master Builders); "WRDA with Hycol" (W.R. Grace & Co.); "Plastocrete" (Sika Chemical Company)-, or approved equal.

3. Water Reducing, Retarding Admixture - ASTM C 494, Type D. When high temperatures, placing or humidity conditions dictate, "Eucon Retarder-75" (The Euclid Chemical Company); "Pozzolith 100-XR" (Master Builders); "Daratard HC" (W.R. Grace & Co.); "Plastiment" (Sika Chemical Company); or approved equal.
 4. Plasticizing Admixture - "Pozzolith-N" (Master Builders)- "WRDA" (W.R. Grace & Co.); "Plastiment" (Sika Chemical Company); or approved equal. When ambient temperature is expected to exceed 80 degrees F during placing and finishing operations, use "Pozzolith - R" (Master Builders); "Daratard" (W.R. Grace & Co.); or approved equal.
 5. Calcium chloride must not be used.
- G. Bonding Agent - Epoxy type, 100 per cent solids "Euco Epoxy #452 (dry surface), #463" (dry or damp surface), (The Euclid Chemical Company); "Sikadur Hi-Mod" (dry or damp surface) (Sika Chemical Co.); "Duralbond 102" (dry or damp surface), (Dural International Corp.), or approved equal.
- H. Patching and Surfacing Compound - Epoxy type, 1 00 per cent solids, "Euco Epoxy #456 Mortar (dry surface), #460 (dry or damp surface)", (The Euclid Chemical Company); "Sikadur Lo-Mod Mortar" (dry or damp surface) (Sika Chemical Co.); "Duraltex" (dry or damp surface), (Dural International Corp.), or approved equal.
- I. Surface Retardant - (Exposed Aggregate finish) "Lithochrome - Top Surface Grade" (L.M.Scofield Co.), or approved equal.
- J. Form Material - Provide metal or wood templates and forms conforming to profiles, lines and dimensions as shown, of substantial design and construction to maintain position and shape when concrete is placed. All forms must be subject to the acceptance of the Commissioner.
- K. Form Oil - Suitable for the type of forms used and the conditions of use.
- L. Expansion Joint Filler - ASTM D994 - "Asphalt Expansion Joint Filler" W.R. Meadows, or approved equal. Expansion Joint must be full depth of joint
- M. Construction Joints - Between all concrete pours suspended for thirty (30) minutes or more, must be a construction joint as shown and detailed on the Plans.
- N. Curing Materials:
1. Absorptive Cover - Burlap cloth made from jute or kenaf, weighing approximately 9 oz. per sq. yd., complying with ASSHO M 182, Class 3 or cotton mats complying with ASTM C 440.
 2. Moisture-Retaining Cover - One of the following:
 - a. Waterproof Paper - ASTM C 171, Type 1 or Type 11.

- b. Polyethylene Sheeting - AASHO M 171.
 - c. Polyethylene-coated burlap.
3. Liquid Membrane Curing Compound - ASTM C 309, Type 1, resin type, clear, unless otherwise directed, for vertical and horizontal surfaces, "Horn Clear-Seal" (W. R. Grace & Co.); "Acri Seal S" Toch Brothers Division, (Carboline Company); "Kure-N-Seal" (Sonneborn-Contech), or approved equal.

2.02 MIXING CONCRETE:

- A. Concrete for this Project must be ready-mix concrete; must be batched and delivered from a plant approved by the Commissioner and in strict accordance with the requirements set forth in ASTM C 94, subject to all provisions specified herein regarding materials, strength, proportioning, consistency and delivery time. Additional amounts of water to the batch, either at the plant or at the Job site will not be permitted, except upon specific approval of the Commissioner in each instance and only if confirmed by calculations utilizing batch weights performed by the Contractor's QC laboratory to not exceed the design water to cement ratio.
- B. The rate of delivery of the ready mixed concrete must be such that the interval between placing of successive batches must be 30 minutes or less to prevent "cold joints". The elapsed time between the introduction of mixing water to the cement and aggregate and completion of discharge must not exceed one (1) hour.
- C. Minimum mixing for each batch must be that required to produce a uniform mixture of materials but in no case less than 70 revolutions after all materials are in the mixer, including water.
- D. The ready-mixed concrete producer must submit duplicate delivery tickets, one (1) for the Contractor and one (1) for the Commissioner, with each load of concrete delivered to the job. Delivery tickets must provide the following information:
 - 1. Date.
 - 2. Name of ready-mix concrete plant.
 - 3. Contractor.
 - 4. Job Location.
 - 5. Type (Standard or High Early Strength) and brand of cement.
 - 6. Cement content in bags per cubic yard of cement.
 - 7. Truck number.
 - 8. Time dispatched and time unloaded.

9. Amount of concrete in load in cubic yards.
 10. Admixtures in concrete, if any.
 11. Type and maximum size of aggregate.
 12. Water added at job, if any.
 13. Name of person who authorized addition of water.
- E. Close control of mixing time must be maintained for air-entrained concrete.
- F. The testing laboratory engaged by the Contractor must periodically check batch proportions and yield strength, and must have continuous access to the mixer.

PART 3 EXECUTION

3.01 INSPECTION:

- A. Before pouring concrete, examine substrate surfaces to determine that they are free of conditions which might be detrimental to proper and timely completion of the work. Start of work must indicate acceptance of the substrate.

3.02 PREPARATION:

- A. Sub-grade and sub-base - Before proceeding with the installation of paving or concrete work, the Contractor must carefully examine the sub-base and must perform any minor grading, shaping, filling or other preparatory work required in the opinion of the testing laboratory or the Commissioner prior to placing the base course. Building up of sub-grade under forms after they are in place will not be permitted.

3.03 PLACING CONCRETE:

- A. Concrete must not be placed until all reinforcement is securely and properly fastened in its correct position; all anchors, sleeves, inserts, pipes, conduits, and other items required to be embedded therein have been inspected and approved by the Commissioner.
- B. In no case will concrete be placed upon frozen base course or subgrade material. Discontinue concrete operations when the air temperature is expected to fall below 40 degrees F during the 24 hour period after placing concrete or when the air temperature is likely to remain below 30 degrees F during the succeeding 6 days; unless provisions for heating aggregates, sand and water have been made, the Contractor has submitted a Cold Weather Paving Plan, and the methods proposed for protecting the concrete has been approved by the Commissioner. In such cases, provide heated concrete in accordance with ASTM C 94 and follow procedures as outlined in ACI 306R "Cold Weather Concreting".
- C. Accelerating or antifreeze admixtures must not be used. The Contractor is responsible for the protection of finished concrete against all damage or injury, including freezing until the work has been completed and accepted. The

Contractor will be held responsible for any defective work resulting from freezing

or injury in any manner during placing and curing, and must replace such work at his or her expense.

- D. Concrete consolidation must be performed in accordance with ACI 309R "Guide for Consolidation of Concrete".

3.04 CONCRETE PAVEMENT - SIDEWALKS - CURBS - GUTTERS:

- A. Construct all concrete pavements, side walks, curbs, etc., indicated on the Drawings, to the lines, grades and Sections indicated. Concrete must be proportioned and mixed as specified, strengths as scheduled. Air entraining must be incorporated in the mix by adding an approved admixtures air content of concrete must be within limits of 5% to 8% net at time of placement, in accordance with ASTM C 231.
- B. Unless otherwise indicated or noted on Drawings, lay out pavements into Sections not exceeding 40 feet in length, separated by expansion joints extending full depth of slab. Unless otherwise shown, expansion filler must be 3/4 inch thick, of material as specified.
- C. Unless otherwise indicated or noted on Drawings, expansion joints in curbs must be spaced not more than 40 feet on centers. Unless otherwise shown, joints must be 3/4 inch thick.
- D. Pitch work as indicated on the Drawings for drainage, approximately 1/8 inch per foot, or as required between the new work and existing work to remain, to assure an even transition is made. Level off slabs with strike-off rod and finish to true and even surface with floats and trowel, leaving a smooth surface. After the water sheen has disappeared, the surface must be given a final finish by brushing with a brush drawn across the sidewalk at right angles to the edges of the walk, with adjacent strokes slightly overlapping, producing a uniform, slightly roughened surface with parallel brush strokes. Wheel chair ramps must be similarly finished, except for heavier brooming transverse to slope of ramps.
- E. The surface must be divided by grooves saw cut at right angles to the center line of the pavement or sidewalk. These grooves must be 1/2 inch deep and not more than 1/4 inch in width. Unless otherwise noted on Drawings, spacing of grooves between expansion joints is not to exceed 5'-0" centers.
- F. Forms for concrete curbs and combination concrete curbs and gutters must be removed within 24 hours after the concrete has been placed. Minor defects must be filled with mortar composed of one part Portland cement and two parts of fine aggregate. The exposed surfaces must be finished smooth and given a light brush finish, while the concrete is still green. The edges must be rounded with approved finishing tools having the radii shown on the Drawings.
- G. After the concrete has set sufficiently, the spaces in back of the curb or combination curb and gutter must be backfilled to the required elevation with approved material which must be compacted until firm and solid and neatly grade.
- H. Traffic, loading or backfilling must not be allowed on concrete surfaces for 7 days

after the concrete has been placed or until 75% of design strength is achieved. If the Contractor seeks permission from the Commissioner to place traffic, loads, or to backfill before 7 days, the Contractor QC and his laboratory must make and break additional cylinders for this purpose in the Contractor's approved laboratory, subject to verification by the Commissioner.

3.05 CURING AND PROTECTION:

- A. Protect freshly placed concrete from defacement, premature drying and excessive cold or hot temperature, and maintain without drying at a relatively constant temperature for a period of time necessary for hydration of cement and proper hardening.
- B. Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing.
- C. Begin final curing procedures immediately following initial curing and before concrete has dried. Provide continuous moist curing above 50 degrees F for at least 7 days, regardless of ambient air temperatures. Demonstrate to the Commissioner that temperature is maintained by means of a high-low or recording thermometer. Continue final curing for at least 168 hours (7 days).
- D. Cure concrete in accordance with ACI 308R "Guide to Curing Concrete".
- E. Concrete must be cured by one of the following methods or by combinations thereof, as approved:
 - 1. Moisture Curing - Cover concrete surface with specified absorptive cover, thoroughly saturating cover with water and keeping continuously wet. Place absorptive cover to provide coverage of concrete surfaces and edges, with 4" lap over adjacent absorptive covers. At the Contractor's option, moisture curing may also be provided by ponding or continuous water spraying, where approved by the Commissioner.
 - 2. Moisture Retaining Cover Curing - Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width with sides and ends lapped at least 3" and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
 - 3. Membrane Curing - Apply membrane-forming curing compound to damp concrete surfaces as soon as water film as disappeared and surface is hard enough to carry applicator's weight without damage. Apply uniformly in 2 - coat continuous operation by power-spray equipment in accordance with manufacturer's directions. Maintain continuity of coating and repair all damage during curing period.
- F. Unless otherwise specified herein or as directed by the Commissioner, Moisture curing or a combination of moisture curing and moisture retaining cover curing must be employed for all exterior concrete pavement work which is to receive a "Surface Sealer".

3.06 SURFACE SEALER:

- A. All concrete pavements, sidewalks, curbs and gutters must be cured in accordance with Section 1022 of Illinois Department of Transportation Standard Specifications for Road and Bridge Construction latest edition. All exterior concrete placed after October 1, which may be subject to deicing chemicals must be protected with a two-coat application of boiled linseed oil as described in Section 420.18 of SSRBC.
- B. Pavement, sidewalks, curbs and gutters poured before October 1, will not require a linseed oil sealer.

3.07 HOT AND COLD WEATHER CONCRETING:

- A. In hot weather, mix, place, and cure concrete according to ACI 305R "Hot Weather Concreting".
- B. In cold weather, mix, place and cure concrete according to ACI 306R "Cold Weather Concreting".
- C. The Contractor must submit detailed procedures for production, transportation, placement, protection, curing, testing and temperature monitoring of concrete during hot or cold weather. The Hot or Cold Weather Concreting Plan must include procedures to be implemented upon abrupt changes in weather conditions or equipment failures.

3.08 CLEAN-UP:

- A. All rubbish and debris resulting from the work of this Section must be collected, removed from the site and disposed of legally.
- B. All work must be left in a broom clean condition.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. PORTLAND CEMENT CONCRETE PAVEMENT FULL DEPTH pavements (jointed or continuously reinforced) for roadway pavement, will be measured in square yards of the depth specified.
- B. PCC BOOTH ISLAND pavement (jointed or continuously reinforced) for booth island, will be measured in square feet.
- C. Portland cement concrete pavements (jointed or continuously reinforced) for REMOVE AND REPLACE, PCC REINFORCED SIDEWALK, FULL DEPTH, including the existing concrete base course, will be measured in square feet for each depth specified.
- D. COMBINATION CURB AND GUTTER, M-6.18 will be measured in foot.
- E. Steel reinforcement will not be measured separately, but will be included in the measurement for all types of concrete pavements, parkways, medians, base courses, curbs and gutters specified herein.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Payment will be made at the contract unit price per square yard for PORTLAND CEMENT CONCRETE PAVEMENT FULL DEPTH; and per square foot for PCC BOOTH ISLAND and REMOVE AND REPLACE, PCC REINFORCED SIDEWALK, FULL DEPTH; and per foot for COMBINATION CURB AND GUTTER, M-6.18. This price will be full compensation for furnishing all materials; for all preparation, hauling and placing of these materials; and for all reinforcement, forming, joint materials, labor, equipment, tools, and incidentals necessary to complete the items.

- B. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|---|-------|
| 02714-5.01 | PORTLAND CEMENT CONCRETE PAVEMENT FULL DEPTH | SQ YD |
| 02714-5.02 | PCC BOOTH ISLAND | SQ FT |
| 02714-5.03 | REMOVE AND REPLACE, PCC REINFORCED SIDEWALK, FULL DEPTH | SQ FT |
| 02714-5.04 | COMBINATION CURB AND GUTTER, M-6.18 | FOOT |

END OF SECTION 02714

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CONCRETE BARRIER
SECTION 02714A

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.

- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|------------------|
| 637 | CONCRETE BARRIER |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Shop Drawings
 - 2) Product Data
 - 3) Test Reports
 - 4) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per Foot.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|---|------|
| 02714A-5.01 | CONCRETE BARRIER, DOUBLE FACE, 32 INCH HEIGHT | FOOT |
| 02714A-5.02 | CONCRETE BARRIER BASE | FOOT |

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AGGREGATE BASE COURSE
SECTION 02720

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. Furnish and install all granular material which must consist of a base course, hereinafter referred to as the Aggregate Base Course, composed of granular materials constructed on a prepared sub grade or underlying course in accordance with these Specifications, and in conformity with the dimensions and typical cross section shown on the Drawings, or as directed by the Commissioner.
- C. Install products and materials (furnished in other Sections) as shown on the Drawings.

1.02 RELATED WORK:

- A. None

1.03 REFERENCES:

- A. Illinois Department of Transportation – Standard Specifications for Road and Bridge Construction (SSRBC), latest edition.

1.04 SUBMITTALS:

- A. Submit the following
 - 1. Samples and/or Product Data
 - a. Product Data:
 - (1) Gradation of CA-6 aggregate materials
 - b. Samples:
 - (1) CA-6 aggregates, if required by the Commissioner.
 - 2. Test Reports
 - a. Submit test reports necessary to show compliance with the Contract Documents.
 - (1) Proctor of the CA-6 aggregate materials in accordance with ASTM D1557.
 - (2) Proctor of existing subgrade in accordance with ASTM D1557.

1.05 QUALITY CONTROL:

- A. (Not Used)

1.06 DELIVERY, STORAGE AND HANDLING:

- A. (Not Used)

PART 2 PRODUCTS:

2.01 MATERIALS:

- A. The aggregate base course material must consist of crushed stone or crushed recycled concrete having a gradation of CA-6 as specified on the Drawings, conforming to the requirements of Article 1004 of the Illinois Department of Transportation's Standard Specifications for Road and Bridge Construction, latest edition (SSRBC). The material must be class D quality or better. The portion of material passing a No. 40 sieve must have a plasticity index of not more than four (4) when tested in accordance with ASTM D 4318.
- B. For the material to be used for the geotextile fabric see Section 02073 - "Geotextile Fabric".

PART 3 EXECUTION

3.01 GENERAL NOTES:

- A. The aggregate base course must be placed where designated on the Drawings or as directed by the Commissioner. The material must be shaped and thoroughly compacted within the tolerances specified.
- B. Stabilization stone must only be placed in areas of severely adverse sub grade conditions and as directed by the Commissioner. Stabilization stone must be crushed stone or crushed recycled concrete having a gradation of CA-1, quality D, conforming to Article 1004.01 of the IDOT SSRBC.
- C. Granular bases which, due to grain sizes or shapes, are not sufficiently stable to support without movement the construction equipment must be mechanically stabilized to the depth necessary to provide such stability as directed by the Commissioner. The mechanical stabilization must principally include the addition of the fine-grained medium to bind the particles of the base material sufficiently to furnish a stable bearing strength.

3.02 EXCAVATING AND PREPARING UNDERLYING SUBGRADE:

- A. Before any aggregate base material is placed, the underlying course must be prepared and conditioned as specified. The course must be checked and accepted by the Commissioner before placing and spreading operations are started.

- B. The existing ground must be excavated and graded to the required lines and grades to provide proper depths for the CA-6 base and concrete slab, unless the Commissioner authorizes over-excavation to remove unsuitable materials. Should the Contractor, through negligence or other fault, excavate below the designated line, it must replace the excavation with approved materials, in an acceptable manner and condition, as approved by the Commissioner, at the Contractor's own expense.
- C. In areas where the Commissioner directs the Contractor to over-excavate below subgrade level and backfill the over-excavation with stabilization stone, the stabilization stone must be placed on a layer of non-woven geotextile filter fabric per Section 02073, leveled and compacted to make the subgrade firm and stable. Areas of undercut 6 inches or less must be stabilized with CA-6 and areas of undercut greater than 6 inches must be stabilized with CA-1. All undercut and backfill work to be directed by the Commissioner.
- D. After the subgrade has been substantially completed, the full width must be conditioned by removing any soft other unstable material which will not compact properly. The resulting areas and all low spots, holes or depressions, must be brought to grade with suitable select material. Scarifying, blading, and rolling and other methods must be performed to provide a thoroughly compacted subgrade shaped to the lines and grades shown on the Drawings.
- E. The grade must be maintained so that the surface is well drained at all times. When necessary, temporary drainage and drainage ditches must be installed to intercept or divert surface water which may affect the work.
- F. Compact the subgrade to 95 percent of its maximum density and +/-2% optimum moisture content as determined in accordance with ASTM D1557.
- G. To protect the subgrade and to ensure proper drainage, the spreading of the aggregate base course must begin along the centerline of the pavement on a crowned section or on the high side of pavements with a one-way slope.
- H. All excess excavation and excavated materials that cannot be reused at site must be legally disposed of off the Airport property.

3.03 MATERIALS ACCEPTANCE IN EXISTING CONDITION:

- A. When the entire aggregate base or stabilization stone material is secured in a uniform and satisfactory condition and contains the required moisture, such approved material may be moved directly to the spreading equipment for placing. The material may be obtained from gravel pits, stockpiles, or may be produced from a crushing and screening plant with the proper blending. The materials from these sources must meet the requirements for gradation, quality, and consistency. It is the intent of this Section of the Specifications to secure materials that will not require further mixing. The moisture content of the material must be that required to obtain maximum density. Any minor deficiency or excess of moisture may be corrected by surface sprinkling or by

aeration. In such instances, some mixing or manipulation may be required, immediately preceding the rolling, to obtain the required moisture content. The final operation must be blading or dragging, if necessary, to obtain a smooth uniform surface true to line and grade.

3.04 PLANT MIXING:

- A. When materials from several sources are to be blended and mixed, the material must be processed in a central or travel mixing plant. The material must be thoroughly mixed with the required amount of water. After the mixing is complete, the material must be transported to and spread on the underlying course without undue loss of the moisture content.

3.05 GENERAL METHODS FOR PLACING:

- A. The aggregate base course must be constructed to the thickness shown on the Drawings. The aggregate base course must be constructed in lifts not more than 4 inches thick when compacted, except that if tests indicate that the desired compaction and results are being obtained, the compacted thickness of any lift may be increased to a maximum of 8 inches. The material, as spread, must be of uniform gradation with no pockets of fine or coarse materials. The aggregate base course, unless otherwise permitted by the Commissioner, must not be spread more than 2,000 square yards in advance of the rolling. Any necessary sprinkling must be kept within this limit. No material will be placed in snow or on a soft, muddy, or frozen course.
- B. When more than one layer is required, the construction procedure described herein must apply similarly to each layer.
- C. During the placing and spreading, sufficient caution must be exercised to prevent the incorporation of sub grade, shoulder, or foreign material in the aggregate base course mixture. All contaminated materials must be removed and replaced at no additional cost to the City.
- D. Where geotextile fabric is required to be placed under the aggregate course, it must be placed over the sub grade in accordance with the manufacturer's recommendations and Section 02073. The aggregate base course material must be back-dumped on the fabric in a sequence of operations beginning at the outer edges of the area with subsequent placement toward the middle. Dumping of the material directly on the fabric must only be permitted to establish an initial working platform. No vehicles or construction equipment must be allowed on the fabric prior to the placement of the aggregate base course. Fabric which is damaged during installation or subsequent placement of aggregate base course must be repaired or replaced by the Contractor at his own expense to the satisfaction of the Commissioner.

3.06 FINISHING AND COMPACTING:

- A. After spreading or mixing, the material must be thoroughly compacted by rolling and sprinkling, when necessary. Sufficient rollers must be furnished to

adequately handle the rate of placing and spreading of the aggregate base course.

- B. The field density of the compacted material must be at least 95 percent of the maximum density and +/-2% of the optimum moisture content of laboratory specimens prepared from samples of the sub base material delivered to the job site for CA-6 material. The laboratory specimens must be compacted and tested in accordance with ASTM D1557.
- C. The course will not be rolled when the underlying course is soft or yielding or when the rolling causes undulation in the sub base. When the rolling develops irregularities that exceed ½ inch when tested with a 16'-0" straightedge, the irregular surface must be loosened and then refilled with the same kind of material as that used in constructing the course and again rolled as required above.
- D. Along places inaccessible to rollers, the base material must be tamped thoroughly with mechanical or hand tampers.
- E. Sprinkling during rolling, if necessary, must be in the amount and by equipment approved by the Commissioner. Water must not be added in such a manner or in a quantity that free water will reach the underlying layer and cause it to become soft.
- F. The Contractor will be responsible for all Quality Control testing for all material and installation.

3.07 EQUIPMENT

- A. The Contractor may use any type of earth moving, compaction, and watering equipment it may desire or has at its disposal, provided that the equipment is in satisfactory condition and is of sufficient capacity to perform the work as specified. The only requirements specified are that tamping rollers (generally referred to as Sheepsfoot Rollers) will be considered the proper type of equipment for compaction of cohesive soils and vibratory/mechanical tamping equipment will be applicable for compacting granular soils. Subgrade rollers can be used to smooth minor surface deviations in both types of subgrade/embankment, but in no case will a steel wheel or vibratory roller be used to compact cohesive embankment. In all cases, the adequacy of the equipment will be determined by the Commissioner. Failure to obtain the specified results or failure to meet the schedule planned by the Contractor and acceptable to the Commissioner, due to inadequate equipment will not be cause for delay or additional payment. The Contractor must furnish, operate, and maintain such equipment as is necessary to control density, section, and smoothness of grade.
- B. The Commissioner will make the determination as to cohesive and non-cohesive soil in regards to selecting the proper type of equipment required to compact the material.

- C. The requirements of Section 01111, Construction Air Quality – Diesel Vehicle Emissions apply to this Specification Section.

3.08 SURFACE TEST:

- A. After the course is completely compacted, the surface must be tested for smoothness and accuracy of grade and crown; any portion found to lack the required smoothness or to fail in accuracy of grade or crown must be scarified, reshaped, recompact, and otherwise manipulated as the Commissioner may direct until the required smoothness and accuracy are obtained. The finished surface must not be above the theoretical vertical grade and may not vary more than ½ inch when tested with a 16'-0" straightedge applied parallel with, and at right angles to the centerline.

3.09 THICKNESS:

- A. The thickness of the completed base course must be determined by depth tests or cores taken at intervals so each test must represent no more than 500 square yards. When the deficiency in thickness is more than ½ inch, the Contractor must correct such areas by scarifying, adding satisfactory mixture, rolling, sprinkling, reshaping, and finishing in accordance with these Specifications. The Contractor must replace at his/her expense the aggregate base material where borings are taken for test purposes.

3.10 PROTECTION:

- A. Work on aggregate base course must not be conducted during freezing temperature nor when the subgrade is wet. When the base material contains frozen material or when the underlying course is frozen, the construction must be stopped.

3.11 MAINTENANCE:

- A. Following the final shaping of the material, the base must be maintained throughout its entire length by the use of standard motor graders and rollers until, in the judgment of the Commissioner; the aggregate base course meets all requirements and is acceptable for the construction of the next course. The Contractor is totally responsible for the preparation, maintenance and protection of the aggregate base course and no additional compensation will be considered for any reworking of the material for any reason.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT:

- A. The yardage of frost protection course to be paid for will be the number of cubic yards of frost protection course material of a variable thickness based on average cross sectional area per Drawing dimensions multiplied by the length placed, compacted and accepted in the completed course. The quantity of frost protection course material will be measured in final position based on surface area, or by means of average end areas computed from depth dimensions in the Drawings. Frost protection materials will not be included in any other excavation quantities.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT:

- A. Payment will be made at the Contract unit price per cubic yard for frost protection course. This price will be full compensation for furnishing all materials including geotextile fabric; for all preparation, hauling, placing and compacting of these materials; and for all labor, equipment, tools, and all work necessary to complete the item.
- B. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|----------------------------|-------|
| 02720-5.01 | AGGREGATE BASE COUSE, CA-6 | CU YD |

END OF SECTION 02720

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GRANULAR BACKFILL FOR STRUCTURES
SECTION 02720A

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT 2017 SUPPLEMENTAL SPECIFICATION SECTION | TITLE |
|--|-------------------------------------|
| 586 | SAND BACKFILL FOR VAULTED ABUTMENTS |

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per cubic yard.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|----------------------------------|-------|
| 02720A-5.01 | GRANULAR BACKFILL FOR STRUCTURES | CU YD |

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TEMPORARY PAVEMENT
SECTION 02745A

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|---|
| 355 | HOT-MIX ASPHALT BASE COURSE |
| 356 | HOT-MIX ASPHALT WIDENING |
| 406 | HOT-MIX ASPHALT BINDER AND SURFACE COURSE |

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per square yard.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--------------------|-------|
| 02745A-5.01 | TEMPORARY PAVEMENT | SQ YD |

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PAVEMENT MARKING

SECTION 02783

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Work under this section is subject to the requirements of the Contract Documents.
- B. The Contractor must furnish all labor, materials, tools and equipment required to install Epoxy Pavement Markings on the pavements as shown on the Plans, as specified herein and as directed by the Commissioner.
- C. The Contractor must furnish all labor, materials, tools and equipment required to remove existing and temporary Epoxy Pavement Markings on the pavements as shown on the Plans, as specified herein and as directed by the Commissioner.
- D. The work must conform to the applicable provisions of Section 780 of the “Standard Specifications for Road and Bridge Construction”, Illinois Department of Transportation, latest edition.

1.02 RELATED WORK

- A. Related Work specified elsewhere includes:
 - 1. Section 01502 – Traffic Control

1.03 REFERENCES

- A. “Standard Specifications for Road and Bridge Construction”, Illinois Department of Transportation, latest edition.
 - 1. This publication will be herein referred to as the “Standard Specifications”.
- B. Titles, designations, dates of issue or revisions of reference standards are those in effect on the date of these “Standard Specifications” unless otherwise specified herein.
- C. Where the “Standard Specifications” refer to the “Engineer”, it will be understood to mean “Commissioner”.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Materials for Epoxy Pavement Markings must conform to Article 1105.02 of the Standard Specifications.

PART 3 EXECUTION

3.01 EPOXY PAVEMENT MARKINGS

- A. Epoxy pavement markings must be installed in accordance with the applicable portions of Section 780 of the Standard Specifications.
- B. Removal of existing and temporary pavement markings from the existing pavement and curbs where new or temporary pavement markings are to be placed must be in accordance with Article 783.03 of the Standard Specifications and will be considered to be included in the cost of the pay item for the respective line width, symbol or letter.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Lines applied under this item will be measured in feet of pavement marking line of line type and width specified.
- B. Temporary Marking Line Removal will be measured in square foot.
- C. Pavement Letters and Markings will be measures in square foot.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Payment will be made at the Contract unit price for Temporary Pavement Marking and Pavement Marking, and Pavement Marking Letters and Symbols of the type and size described, which price will be payment in full for all labor, materials, tools, equipment and all work necessary to complete the Work as specified, as shown on the Plans and as directed by the Commissioner.

B. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|---|-------|
| 02783-5.01 | TEMPORARY PAVEMENT MARKING LINE, 4-INCH | FOOT |
| 02783-5.02 | TEMPORARY PAVEMENT MARKING LINE, 6-INCH | FOOT |
| 02783-5.03 | TEMPORARY PAVEMENT MARKING LINE, 24-INCH | FOOT |
| 02783-5.04 | TEMPORARY PAVEMENT MARKING LINE, REMOVAL | SQ FT |
| 02783-5.05 | PAVEMENT MARKING LINE, EPOXY, 4-INCH | FOOT |
| 02783-5.06 | PAVEMENT MARKING LINE, EPOXY, 6-INCH | FOOT |
| 02783-5.07 | PAVEMENT MARKING LINE, EPOXY, 12-INCH | FOOT |
| 02783-5.08 | PAVEMENT MARKING LINE, EPOXY, 24-INCH | FOOT |
| 02783-5.09 | PAVEMENT MARKING LETTERS AND SYMBOLS, EPOXY | SQ FT |

END OF SECTION 02783

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**REMOVE AND RE-ERECT OVERHEAD SIGN
SUPERSTRUCTURE – BRIDGE MOUNTED
SECTION 02839A**

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|---|
| 738 | REMOVE, REPLACE AND RE-ERECT OVERHEAD SIGN STRUCTURE COMPONENTS |

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per each.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--|------|
| 02839A-5.01 | REMOVE AND RE-ERECT OVERHEAD SIGN SUPERSTRUCTURE – BRIDGE MOUNTED, 10' X 24' | EACH |
| 02839A-5.02 | REMOVE AND RE-ERECT OVERHEAD SIGN SUPERSTRUCTURE – BRIDGE MOUNTED, 10' X 58' | EACH |

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OVERHEAD SIGN SUPERSTRUCTURE – BRIDGE MOUNTED
SECTION 02839B

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|---|
| 738 | REMOVE, REPLACE AND RE-ERECT OVERHEAD SIGN STRUCTURE COMPONENTS |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Shop Drawings
 - 2) Product Data

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per foot.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|---|------|
| 02839B-5.01 | OVERHEAD SIGN SUPERSTRUCTURE – BRIDGE MOUNTED | FOOT |

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GUARDRAIL

SECTION 02875

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. Work under this section is subject to the requirements of the Contract Documents.
- B. The Contractor must furnish all labor, materials, tools and equipment required to install guardrail and guardrail terminals as shown on the Plans, as specified herein and as directed by the Commissioner.
- C. The work must conform to the applicable provisions of Section 630 and 631 of the “Standard Specifications for Road and Bridge Construction”, Illinois Department of Transportation, latest edition.
- D. Standard Specifications articles referring to “Method of Measurement” and “Basis of Payment” must not be applicable.

1.02 RELATED WORK

- A. Related Work specified elsewhere includes:
 - 1. Section 01502 – Traffic Control

1.03 REFERENCES

- A. “Standard Specifications for Road and Bridge Construction”, Illinois Department of Transportation, latest edition.
 - 1. This publication will be herein referred to as the “Standard Specifications”.
- B. Titles, designations, dates of issue or revisions of reference standards are those in effect on the date of these “Standard Specifications” unless otherwise specified herein.
- C. Where the “Standard Specifications” refer to the “Engineer”, it will be understood to mean “Commissioner”.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Guardrail and guardrail terminals must be furnished in accordance with Section 630 and Section 631 of the Standard Specifications.
- B. Materials for guardrail, wood posts, wood block, steel posts, portland cement concrete hardware, rubrail, structural plates, hollow tubing and reinforcement bars must conform to Articles 1006.04, 1006.10, 106.23, 1006.25, 1006.27, 1007.01, 1007.02, 1007.06, 1006.23, 1007.12, 1020 and 1006.10 of the Standard Specifications respectively.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Guardrail must be installed in accordance with the applicable portions of Section 630 and Section 631 of the Standard Specifications.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Guardrail installed under this item will be measured in feet along the top edge of the rail elements, continuous through laps and splices and end sections.
- B. Guardrail Terminals applied under this item will be measured per each of the type specified, furnished and installed in place as shown in the plans.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Payment will be made at the contract unit price for Guardrail and Guardrail Terminals of the type and size described, which price will be payment in full for all labor, materials, tools, equipment and all work necessary to complete the Work as specified, as shown on the Plans and as directed by the Commissioner.

B. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--|------|
| 02875-5.01 | STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS | FOOT |
| 02875-5.02 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) | EACH |
| 02875-5.03 | TRAFFIC BARRIER TERMINAL, TYPE 2 | EACH |
| 02875-5.04 | TRAFFIC BARRIER TERMINAL, TYPE 5 | EACH |
| 02875-5.05 | TRAFFIC BARRIER TERMINAL, TYPE 6 | EACH |

END OF SECTION 02875

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TOPSOILING
SECTION 02920

PART 1 DESCRIPTION

1.01 GENERAL

- A. This item must consist of preparing the ground surface for topsoil application, placing machine pulverized topsoil obtained from on site unclassified excavation or from approved sources off the site at the Contractor's option, and spreading the topsoil on prepared areas in accordance with this Specification at the locations shown on the Drawings or as determined by the Commissioner. The work under this Section is subject to the requirements of the Contract Documents.

PART 2 MATERIALS

2.01 TOPSOIL

- A. Topsoil must be the surface layer of soil with no admixture of refuse or any material toxic to plant growth, and it must be reasonably free from subsoil and stumps, roots, brush, stones, clay lumps, sticks, debris, or similar objects of one inch many dimension and larger. The topsoil must be thoroughly pulverized through a topsoil pulverizer / screen machine before placement. Brush and other vegetation which will not be incorporated with the soil during handling operations must be cut and removed. Ordinary sods and herbaceous growth such as grass and weeds are not to be removed but must be thoroughly broken up and intermixed with the soil during handling and pulverizing operations. The topsoil or soil mixture, unless otherwise specified or approved, must have a pH range of approximately 5.5 pH to 7.6 pH, when tested in accordance with the methods of testing of the Association of Official Agricultural Chemists in effect on the date of invitation of bids. The organic content must be not less than 3% nor more than 20% as determined by the wet-combustion method (chromic acid reduction) AASHTO T194. There must be not less than 20% nor more than 80% of the material passing the 200 mesh sieve as determined by the wash test in accordance with AASHTO T 11.
- B. Natural topsoil may be amended by the Contractor with approved materials and methods to meet the above Specifications. Topsoil must be pulverized prior to application.

2.02 INSPECTION AND TESTS

- A. At least 21 days prior to placement, the Contractor must notify the Commissioner of the source of topsoil he proposes to furnish whether from strippings or grading on site, supplemented from sources off site of the Project area, or totally from an off site source. When directed by the Commissioner, the topsoil must be inspected to determine if the selected soil meets the requirements specified and

to determine the depth to which stripping will be permitted. The Contractor must take a minimum of one representative soil sample from three (3) locations within the area under consideration and to the proposed stripping depths, for testing purposes as specified in Paragraph 2.01.

PART 3 CONSTRUCTION METHODS

3.01 GENERAL

- A. Areas to be topsoiled must be as shown on the Drawings or designated by the Commissioner. Suitable equipment necessary for proper preparation and treatment of the ground surface, stripping of topsoil and for the handling and placing of all required materials must be on hand, in good condition, and approved by the Commissioner before the various operations are started.

3.02 PREPARING THE GROUND SURFACE

- A. Immediately prior to dumping and spreading the topsoil on any area, the surface must be loosened by discs or spike-tooth harrows, or by other means acceptable to the Commissioner, to a minimum depth of one (1) inch to facilitate bonding of the topsoil to the covered subgrade soil. The surface of the area to be topsoiled must be cleared of all stones larger than 1 inch in any diameter and all litter or other material which may be detrimental to proper bonding, the rise of capillary moisture, or the proper growth of the desired planting. Limited areas, as shown on the Plans, which are too compact to respond to these operations, must receive special scarification.
- B. Grades on the area to be topsoiled, which have been established by others as shown on the Plans, must be maintained in a true and even condition. Where grades have not been established, the areas must be smooth-graded and the surface left at the prescribed grades in an even and properly compacted condition to prevent, insofar as practical, the formation of low places or pockets where water will stand.

3.03 OBTAINING TOPSOIL

- A. Topsoil, whether obtained on-site or off-site, must be pulverized prior to installation in the Project.
- B. Prior to the stripping of topsoil from designated areas, any vegetation, briars, stumps and large roots, sticks, rubbish or stones found on such areas, which may interfere with subsequent operations, must be removed using methods acceptable to the Commissioner. Heavy sod or other cover, which cannot be incorporated into the topsoil by pulverizing must be removed.
- C. The topsoil must be spread on areas already tilled and smooth-graded, or stockpiled in areas approved by the Commissioner. Any topsoil stockpiled by the Contractor must be rehandled and placed without additional compensation. The sites of all stockpiles and areas adjacent thereto which have been disturbed by

the Contractor must be graded if required and put into a condition acceptable for seeding.

- D. When suitable topsoil is secured off the Airport site, the Contractor must locate and obtain the supply, subject to the approval of the Commissioner. The Contractor must notify the Commissioner sufficiently in advance of operations in order that necessary measurements and tests can be made. The Contractor must remove the topsoil from approved areas and to the depth as directed. The topsoil must be hauled to the site of the work and pulverized per Paragraph 2.01.A and placed for spreading, or spread as required. Any topsoil hauled to the site of the work and stockpiled must be rehandled and placed without additional compensation.

3.04 PLACING TOPSOIL

- A. The topsoil must be evenly spread on the prepared areas to a uniform depth of 4 inches after compaction, unless otherwise shown on the Plans. Spreading must not be done when the ground or topsoil is frozen, excessively wet, or otherwise in a condition detrimental to the work. Spreading must be carried on so that turfing operations can proceed with a minimum of soil preparation or tilling.
- B. After spreading, any large, stiff clods and hard lumps must be broken with a pulverizer or by other effective means, and all stones or rocks (1 inch or more in diameter), roots, sticks, litter, or any foreign matter must be raked up and disposed of by the Contractor. After spreading is completed, the topsoil must be satisfactorily compacted by rolling

with a cultipacker or by other means acceptable to the Commissioner. The compacted topsoil surface must conform to the required lines, grades, and cross sections. Any topsoil or other dirt falling upon pavements as a result of hauling or handling of topsoil must be promptly removed.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENTS

- A. The amount of top-soiling will be measured in square yards for the depth needed to restore the median landscaped island, completed and accepted as specified herein.

PART 5 BASIS OF PAYMENT

5.01 PAYMENTS

- A. Payment will be made at the contract unit price per square yard of topsoiling. The price will be full compensation for all labor, materials, tools, equipment and incidentals required to complete the work as specified herein and on the drawings.

B. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|-------------|-------|
| 02920-5.01 | TOPSOILING | SQ YD |

END OF SECTION 02920

EXTERIOR PLANTS
SECTION 02930

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. Furnish, transport and plant trees as directed by CDA and as specified herein, including but not limited to the following:
 - 1. Installation, maintenance and warranty of all trees, shrubs, evergreens, plants, planters, annuals, vines, perennials and ground cover.
 - 2. Providing labor, materials and equipment required, maintenance of trees, shrubs, evergreens and ground cover during maintenance and guarantee period.
- C. Install products and materials as shown on the Drawings and as specified herein.

1.02 RELATED WORK:

- A. As specified in the following divisions:
 - 1. Division 1 - General
 - 2. Division 2 – Site Construction

1.03 REFERENCES:

- A. American Association of Nurserymen, Inc. (ANSI Z60.1), latest edition.
- B. NAA (National Arborist Association) – “Pruning Standards for Shade Trees.”
- C. SSRBC-Standard Specifications for Road and Bridge Construction, Published by Illinois Department of Transportation, latest edition and supplements
- D. Hortus Third, Cornell University, 1976.
- E. CDA Design and Construction Standards Vol. II - General Design Parameters (Article 1-06)

1.04 SUBMITTALS:

A. Submit the following

1. Samples and/or Product Data
 - a. Samples:
 - (1) Plant Material – Architect reserves the right to tag and/or inspect plant stock at the nursery prior to delivery to the site.
 - (2) Mulch – One (1) cubic foot of each type specified.
 - (3) Tree Wrap – Two (2) linear foot sample.
 - (4) Edging Materials and Accessories – One (1) linear foot of each type to verify material and color selected.
2. Material Test Reports
 - a. Submit test reports necessary to show compliance with the Contract Documents.
3. Manufacturer's Certification
 - a. Submit certification that products meet or exceed the specified requirements.
 - b. All certificates of inspection that may be required by Federal, State or local authorities to accompany shipments of plants.
 - c. Provide certificate of as described by ASTM Z 60.1 that exterior plants are free of disease or hazardous insects.
4. Planting Schedule
 - a. Submit planting schedule indicating anticipated dates and location for each type of planting.
5. Toxic Chemicals
 - a. Submit manufacturer's data for all products, areas of application and anticipated uses of pesticides, herbicides and fumigants.
6. Operation and Maintenance Manuals
 - a. Submit maintenance instructions recommending procedures to be established by owner for maintenance of landscaping during an entire year. Include cutting and trimming method; types, application frequency, and recommended coverage of fertilizer.

1.05 QUALITY CONTROL:

- A. Contractor Qualifications: Installation of exterior plants must be performed only by a qualified Installer. The term qualified means experienced in performing the Work required by this Section. The qualified installer must have a minimum of five (5) years documented experience on Projects similar in size and scope to this Project. The installer must submit evidence of such qualifications upon request by the Commissioner.
 - 1. Tree Pruner must show proof of Arborist Certification.
- B. Perform Work in accordance with:
 - 1. SSRBC-Standard Specifications for Road and Bridge Construction, Published by Illinois Department of Transportation, latest edition and supplements.
 - 2. Tree Pruning: NAA - Pruning Standards for Shade Trees.

1.06 DELIVERY, STORAGE AND HANDLING:

- A. Materials must be delivered to the Project bearing Nursery's name and plant identification.
 - 1. Protect and maintain plant life until planted.
 - 2. Deliver exterior plants freshly dug.
 - 3. Deliver plant life materials immediately prior to placement. Keep plants moist.
 - 4. Handle planting stock by root ball.
- B. Protect materials against damage from mechanical abuse, plaster, salts, acids, staining and other foreign matter by an approved means during transportation, storage and erection and until completion of construction Work. All unsatisfactory materials must be removed from the premises, and all damaged materials replaced with new materials.
- C. Access and Storage Areas
 - 1. To reduce interference with Airport Operations, all access and storage areas must be subject to the approval of the Commissioner.
 - 2. Protect adjacent areas, including lawns, and promptly repair damage caused by planting operations.

1.07 WARRANTIES AND GUARANTEES:

- A. The following materials have special Manufacturer's Warranties for the periods listed with each item, which may originate, in part or in whole, with the

manufacturer or the fabricator and such warranties must be passed through the Contractor to the Department;

1. Trees
- B. The Contractor must repair or replace defective materials and workmanship during the Contract Period and for 2 years from the date of Substantial Completion of the Project. Defective material and workmanship include, but are not limited to, the following:
1. All plants must be alive and in vigorous growth at the end of the maintenance and guarantee periods.
 2. Inspections must be made periodically by the Commissioner during the guarantee period. If any discrepancies are found by such inspections, the Contractor must be informed and he must make whatever corrections necessary to the satisfaction of the Commissioner.
 3. The Contractor's Warranty must not include damage caused by vandalism or natural conditions exceeding the performance requirements in this Contract.
 4. At the end of the maintenance and guarantee periods, final inspection must be made by the City upon written notice to the Commissioner requesting such inspection at least ten (10) Days before the anticipated date. Any plant that is dead or not in a healthy vigorous condition, or the design value of which has been destroyed through loss of branches, as determined by the Commissioner, must be removed from the site. All dead plants so removed and any plants missing, due to the Contractor's negligence must be replaced as soon as conditions permit during the next normal planting season at the Contractor's expense. All replacement plants must be of the same kind and size as originally specified in the plant list, and must be furnished and planted as herein specified.

1.08 EXTRA MATERIALS AND SPARE PARTS:

- A. (Not Used)

1.09 ENVIRONMENTAL REQUIREMENTS:

- A. Do not install plant life when ambient temperatures may drop below [35] degrees F ([2] degrees C) or rise above [90] degrees F ([32] degrees C).
- B. Do not install plant life when wind velocity exceeds [30] mph ([48] k/hr).

1.10 SPECIAL REQUIREMENTS:

- A. Definitions

1. Weeds - Any plant life not specified or scheduled.
 2. Plants - Living trees, plants, and ground cover specified in this Section and described in ANSI Z 60.1.
- B. Coordinate Work of this Section with related Work specified in the other divisions/sections of the Contract Documents.
- C. Permits for Tree Care - If it is necessary to remove, plant, trim, spray or in any way effect the general health or structure of trees in the public way, the Contractor must obtain a permit, at least 48 hours prior to starting such work, from the General Superintendent of the Bureau of Forestry, Parkways & Beautification of the Department of Streets and Sanitation, Room 302, 320 North Clark Street., Chicago, Illinois 60610. No such Work must be done by the Contractor without this permit.
- D. Planting Seasons
1. Planting operations must be conducted under favorable weather conditions during the planting season normal for such work as determined by accepted practice in the Chicago area. Planting operations must start when soil and weather conditions are such that the plants and topsoil can be properly dug and moved.
 2. Normal planting seasons for deciduous trees and shrubs are as follows:
 - a. Spring - March 15 to June 1
 - b. Fall - September 15 to November 15
 3. For evergreens and ground cover plants
 - a. Spring - March 15 to June 1
 - b. Fall - August 15 to September 15.

1.11 MAINTENANCE SERVICE:

- A. Maintain plant life for three months after Date of Substantial Completion.
- B. Maintain plant life immediately after placement until plants are well established and exhibit a vigorous growing condition. Continue maintenance until termination of warranty period.
- C. Maintenance to include:
1. Cultivation and weeding plant beds and tree pits.
 2. Applying herbicides for weed control in accordance with manufacturer's instructions. Remedy damage resulting from use of herbicides.

3. Remedy damage from use of insecticides.
4. Irrigating sufficient to saturate root system.
5. Pruning, including removal of dead or broken branches, and treatment of pruned areas or other wounds.
6. Disease control.
7. Maintaining wrapping, guys, turnbuckles, and stakes. Adjust turnbuckles to keep guy wires tight. Repair or replace accessories when required.
8. Replacement of mulch.

PART 2 PRODUCTS

2.01 MATERIALS:

- A. All plant materials must comply with ANSI Z60.1 and must be nursery grown, freshly dug, normally shaped and well-branched; they must be full foliated when in leaf. Trees must be self-supporting with straight trunks, full heads and with leaders intact. All plants must be free of insect infestation and diseases, and must have been grown under climatic conditions with temperature extremes similar to those of the Chicago Area for a minimum of two (2) years prior to use on this Project.
- B. Trees shall be Honeylocust, 4-inch cal., as shown on the drawings.
- C. Plantings shall be Penstemon Husker's Red, Stella de Oro Daylily, and Welcoming Trumpets Mix Daffodils, as shown on the drawings.
- D. The caliper dimension of tree trunks must be measured 6 inches above ground line for trees up to and including 4 inch caliper trees. Trees over 4 inches in caliper must be measured 12 inches above ground line.
- E. Any pruning required must be done at the time of planting under the general supervision of the Commissioner.
- F. Planting Soil - Planting soil must be composed of the following:
 1. Topsoil - Topsoil must be pulverized or screened, natural, fertile, friable soil possessing characteristics of rich productive soils in the Chicago area. It must be obtained from naturally well-drained areas, not excessively acid or alkaline and contain no toxic substances which may be harmful to plant growth. It must be completely without admixture of subsoil, free from clay lumps, roots, stones, and other debris. Topsoil must not be handled in a frozen or muddy condition.
 2. Top soil must be relatively free from large rocks sticks, weeds, brush, or stones larger than 1" in diameter or other litter and waste products.

It must be a loamy mixture having at least 90 percent passing the No. 10 sieve. A sample, free from extraneous materials, must comply with the following requirements.

- a. It must contain not less than 1 percent or more than 10 percent organic matter as determined by the test for organic matter in accordance with AASHTO T 194.
 - b. It must contain not less than 12 percent or more than 50 percent clay as determined in accordance with AASHTO T 88.
 - c. The sand content will not exceed 55 percent as determined in accordance with AASHTO T 88.
 - d. The pH of the sample must not be lower than 5.0 or higher than 8.0. The pH must be determined with an acceptable pH meter, on that portion of the sample passing the No. 10 sieve, in accordance with ASTM D 5268.
3. Manure - Manure must be either well rotted cattle manure or horse manure, unleached, free of foreign matter and harmful chemical and not less than eight (8) months old nor more than two (2) years old.
 4. Sand - Sand must be clean # 2 sharp torpedo sand containing no clay or materials toxic to plants.
 5. Bone Meal - Bone meal must be finely ground having a minimum analysis of 2 per cent nitrogen and 20 per cent phosphoric acid.
 6. Planting Soil Mix - The planting soil mixture must be made up of three (3) parts by volume of topsoil. One (1) part of manure, one (1) part of sand and five (5) pounds of bone meal per cubic yard of soil mixtures. The planting soil mixture must be thoroughly mixed with a Lindig pulverizer or other approved mechanical method. It must not be mixed by hand on the site but must be delivered to the job site premixed. The Contractor must inform the Commissioner as to the method of mixing and the location of the mixing site before any planting soil is delivered to the Project site.

G. Mulches

1. Mulch materials must be mushroom manure, shredded bark or crushed pecan shells.
2. A minimum thickness of 3" of mulch must be placed in each tree pit within 48 hours after planting. Mulches must consist of the following as indicated on the Drawings:
 - a. Mushroom manure must be well rotted mushroom manure, unleached, free of foreign materials and harmful chemicals.
 - b. Shredded bark mulch must consist of bark that has been shredded or pulverized by means of a chipper.

- c. Crushed pecan shells must be the by-product of the shelled pecan industry.
 - 3. All mulches are subject to approval of the Commissioner prior to installation. All mulches must be free of harmful or extraneous materials, especially broken glass or metal fragments.
- H. Materials for Wrapping Trees - Wrapping material must be burlap. Wrapping material must be first quality, not less than 6" not more than 10" in width, and must be at least 8 oz. burlap.
- I. Inorganic Soil Amendments
 - 1. Lime - Ground limestone, dolomite type, minimum 95 percent carbonates.
- J. Organic Soil Amendments
 - 1. Compost (fill in)
 - 2. Peat – Sphagnum (fill in)
 - 3. Peat – (fill in)
- K. Fertilizer
 - 1. Lime - Ground limestone, dolomite type, minimum 95 percent carbonates.
- L. Mulches
- M. Weed Control Barriers
- N. Stakes and Guys
- O. Landscape Edgings

PART 3 EXECUTION

3.01 INSPECTION:

- A. Before commencing installation, examine substrate surfaces to determine that they are free of conditions which might be detrimental to proper and timely completion of the work. Start of work must indicate acceptance of the substrate.

3.02 PLANTING OPERATIONS:

- A. Digging Plants - All plants must be dug with reasonable care and skill immediately prior to shipment. Special precaution must be taken to avoid any unnecessary injury to the root system. All precautions that are customary in

good trade practice must be taken to insure that, upon arrival at the job site, the plants are in good condition for successful planting and growth.

- B. Excavation of Plant Pits - All plant pits must be excavated to the minimum depths and sizes shown, with sides vertical. All excavated material must be removed and legally disposed of off the site. The pits must be backfilled with prepared planting soil mixture, as the plants are set.
- C. The planting soil mixture must be placed within the plant pit and compacted to the depth to support the tree or shrub ball at the proper height in relation to the finished grade. The plants must then be set in place leaving the burlap on the top and sides of the root ball. The pits must then be filled approximately three quarters full with the planting soil mixture. The burlap must be removed from the top of the root ball and laid back over the surrounding planting soil and the pit filled with water to thoroughly moisten the planting soil and the root ball. After the water has been absorbed by the soil within the pit the remainder of the pit must be filled with dry planting soil to the proper depth. Additional water must be added to soak the additional planting soil thoroughly.
- D. All trees and shrubs must be set plumb and straight at the time of planting.
- E. Pruning - Top pruning of all deciduous shade trees and shrubs must be done at time of planting using proper tools and in a manner characteristic of the species, removing all damaged, dead, diseased and inward growing branches. Cuts over 1" in diameter must be painted with approved tree pruning compound. The paint must cover all exposed cambium as well as other exposed living tissue.
- F. Wrapping - The trunks of all trees must be wrapped as shown on the Drawings. The wrapping must be done spirally from bottom to top with wrapping material as specified and securely tied with cord, twine or tape at the top and bottom and at two foot intervals along with trunk. The wrapping must overlap and entirely cover the trunk from the ground to the height of the second branches, and must be neat and snug. Overlap must be approximately 2". Trees must be inspected for injury to trunks, insect infestation and improper pruning before wrapping.

3.03 MAINTENANCE:

- A. Maintenance - Maintenance of all landscaping work and plant material must consist of initial or primary maintenance and full or final maintenance, both of which are included in the Contract. Primary maintenance must begin immediately after each plant is planted and must continue until all plants have been planted and the entire landscape work is completed and conditionally accepted, prior to the guarantee period. Primary maintenance must include watering, spraying, cultivating, mulching, pruning and removal of dead materials, resetting of plants to proper grade and upright position, and other necessary operations required or as ordered by the Commissioner to maintain a neat appearance and healthful vigor of the plantings,

- B. Replacement of plants, necessary during the primary maintenance period due to removal, loss or damage resulting from vandalism, or acts of neglect on the part of others, may be made on order of the Commissioner and must be made at the Contractor's expense.
- C. Final maintenance must begin immediately subsequent to the completion of primary maintenance and conditional acceptance of the landscape work and continue for a period of two (2) years, concurrent with the guarantee period. Final maintenance must include watering, fertilizing, spraying, cultivating, pruning and removal of dead material, resetting of trees to proper grade and upright position and other necessary operations required or as ordered by the Commissioner to maintain a neat appearance and healthful vigor of the plantings. This includes, but is not limited to, the following:
1. Fertilize all trees during the first spring following conditional acceptance with a 10-6-4 complete fertilizer. Fertilizer must be uniformly spread around each tree at the rate of one (1) pound for each inch of trunk diameter. After the application of fertilizer, the areas must be cultivated and thoroughly watered.
 2. Trees must be pruned to remove dead and undesirable growth.
 3. The ground cover beds must be cultivated, weeded and watered. Subsequent to the above mentioned fertilization of the trees and shrubs all areas are to be cultivated. Immediately following the cultivation all trees and shrubs must be remulched to their original specified depth, in accordance with the original Specifications. Subsequent to the above mentioned fertilization of the trees all areas are to be cultivated immediately following the cultivation all trees must be remulched to the original specified depth in accordance with the original Specifications.
 4. During the months of May through October all plantings must be thoroughly watered at least every fifteen days, except when there has been at least a one (1)" rainfall in any one day, the watering for that semimonthly period may be omitted.
 5. Do not fertilize native plant species beyond initial soil preparation. For all others do not exceed an application rate of 2 pounds per 1000 square feet per year.
- D. Replacement of plants necessary during the final maintenance periods, due to removal; loss or damage resulting from vandalism; or acts or neglect on the part of others, may be made upon submission of cost by the Contractor and approval and authorization by the City. The cost of all other replacements must be borne by the Contractor. All replacement plant materials and planting must conform to the Specifications and be specifically approved.

3.04 INSPECTION AND ACCEPTANCE:

- A. Inspections must be made periodically by the Commissioner during the guarantee period. If any dead or dying plants or other discrepancies are found by such inspections, the Contractor must be so informed and he must make whatever corrections necessary to the satisfaction of the Commissioner. Inspection of all landscape work under the Contract, to determine completion of the work, must be made at the conclusion of the guarantee and maintenance periods to determine final acceptance. After inspection, the Contractor must be notified, in writing by the Commissioner, of acceptance of all work or of any required replacement of plant materials or of any deficiencies in the requirements before completion of the work and final acceptance.

3.05 REMOVAL OF DEBRIS AND SURPLUS MATERIALS:

- A. During the progress of the work, the Contractor must at all times keep the premises broom clean, free from accumulation of debris and surplus materials and must regularly remove such materials from the job site. He must at all times keep the driveways, parking areas and surrounding walkway surfaces free from debris including soil. Upon completion of his work or portions thereof, he must remove all equipment, surplus materials and debris, leaving the site broom clean to the satisfactions of the Commissioner.

3.06 PROTECTION OF ADJACENT WORK:

- A. The Contractor must protect all adjacent concrete surfaces, electrical work and surrounding facilities from damage. He must be held responsible to repair, to the satisfaction of the Commissioner, any concrete surfaces or facilities damaged by him, his workmen or equipment during his operations.

3.07 GENERAL CLEAN-UP:

- A. All rubbish and debris resulting from the Work of this Section must be collected, removed from the site and disposed of legally.
- B. All work areas must be left in a broom clean condition.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. The work for furnish and install Tree will be measure per each tree furnished and planted.
- B. The work for furnish and install landscape plantings will be measure per each.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Payment for tree will be made at the Contract unit price per each, which will be payment in full for all labor, materials, equipment, and all work necessary to furnish and plant.
- B. Payment for landscape plantings will be made at the Contract unit price per each, which will be payment in full for all labor, materials, equipment, and all work necessary to furnish and plant.
- C. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|---------------------------------------|------|
| 02930-5.01 | TREE, HONEYLOCUST, 4-INCH CAL. | EACH |
| 02930-5.02 | PENSTEMON HUSKER'S RED, #1 POT (GAL.) | EACH |
| 02930-5.03 | STELLA DE ORO DAYLILY, #1 POT (GAL.) | EACH |
| 02930-5.04 | WELCOMING TRUMPETS MIX DAFFODILS | EACH |

END OF SECTION 02930

SEEDING
SECTION 02931

PART 1 DESCRIPTION

1.01 GENERAL

- A. This item consists of seeding in the areas shown on the Plans to be regraded or as directed by the Commissioner in accordance with these Specifications.

PART 2 MATERIALS

2.01 SEED

- A. The kinds of grass, legume, and cover-crop seed furnished must be those stipulated herein. Seed must conform to the requirements of the Illinois Department of Transportation (IDOT) Standard Specification for Road and Bridge Construction (SSRBC), latest edition, Article 1081.04 unless otherwise specified in this Specification. For Tall Fescue varieties shown in 2.01C, use parameters specified for "Fescue Inferno Tall" in Table II of Article 1081.04.
- B. Seed must be furnished separately or in mixtures in standard containers with the seed name, lot number, net weight, percentages of purity and of germination and hard seed, and percentage of maximum weed seed content clearly marked for each kind of seed. The Contractor must furnish the Commissioner duplicate signed copies of a statement by the vendor certifying that each lot of seed has been tested by a recognized laboratory for seed testing within 6 months of date of delivery. This statement must include: name and address of laboratory, date of test, lot number for each kind of seed, and the results of tests as to name, percentages of purity and of germination, and percentage of weed content for each kind of seed furnished, and, in case of a mixture, the proportions of each kind of seed. Seeds must be spread uniformly at the rate and mixture specified below in pounds per acre of pure live see (PLS):

| | |
|-------------------------|--------------------|
| <u>Grass Seed Blend</u> | <u>lb/acre PLS</u> |
|-------------------------|--------------------|

| | |
|--|--|
| <u>Type 1 – CDA Permanent Seed Mix</u> | |
|--|--|

| | |
|--|-----|
| Tall Fescue (<i>Festuca arundinacea</i>) | 325 |
|--|-----|

Use a minimum of 3 varieties of tall fescue. Each variety should contain a minimum of 70% viable endophytes. Varieties should come from the following list: 2nd Millennium, Bonsai, Cayenne, Cochise III, Constitution, Covenant, Coyote II, Crossfire II, Dakota, Dynasty II, Escalade, Falcon IV, Mustang 3, Rendition, SR 8600, Scorpion II, Shenandoah II, Taos, Titan Ltd., Titanium or Tombstone or as approved by the Commissioner.

2 – Late Fall Seed Mix

| | |
|--|-----|
| Tall Fescue (<i>Festuca arundinacea</i>) | 250 |
| Perennial Ryegrass (<i>Lolium perenne</i>) | 75 |

Use Tall Fescue blend of varieties listed in Schedule 1 and a blend of up to two cultivars of endophyte – containing Perennial Ryegrass.

Type 3 – Dormant Seed Mix

| | |
|--|-----|
| Tall Fescue (<i>Festuca arundinacea</i>) | 300 |
| Perennial Ryegrass (<i>Lolium perenne</i>) | 75 |

Use Tall Fescue blend of varieties listed in Schedule 1 and a blend of up to two cultivars of endophyte – containing Perennial Ryegrass.

Type 4 – Swale/Ditch Seed Mix (See CDA/OMP Standard Detail 7-03-01)

| | |
|--|-----|
| <u>Type 1</u> | 325 |
| or | |
| <u>Type 2</u> | 325 |
| or | |
| <u>Type 3</u> | 375 |
| and | |
| Red Top (<i>Agrostis alba</i>) | 10 |
| Rough Bluegrass (<i>Poa trivialis</i>) | 20 |

Use swale mix in areas where irregular inundation is expected. The area to be seeded shall include the swale/ditch banks up to an elevation that is two feet above the normal water elevation for the channel. For normally dry channels, this shall be measured from the channel invert. The Red Top and Rough Bluegrass should be over seeded at the specified rates over the Type 1 or Type 2 seed application depending on application date.

- C. The Contractor must store the Tall Fescue seed varieties in a cool dry place until planted to protect endophyte levels from high heat. The seed must not be stored

in direct sunlight and must not be kept in a hot shed during summer.

2.02 LIME

- A. Lime, if required to adjust the soil pH, must be ground limestone containing not less than 85% of total carbonates, and must be ground to such fineness that 90% will pass through a No. 20 mesh sieve and 50% will pass through a No. 100 mesh sieve. Coarser material will be acceptable, providing the rates of application are increased to provide not less than the minimum quantities and depth specified in the special provision on the basis of the two sieve requirements above. Dolomitic lime or a high magnesium lime must contain at least 10% magnesium oxide.
- B. To determine if lime is required, the Contractor must perform 4 pH tests, located at least 50 feet apart, on the soil for each acre to be seeded. The average value of the test results must be the pH value for that acre tested. If the pH value is less than 5.5, the soil must be amended to raise the pH to the acceptable range. Lime requirement must be determined by soil test of the buffering capacity of the soil. Sufficient lime must be applied to raise soil pH to 6.5. Copies of the test results must be transmitted to the Commissioner upon receipt by the Contractor.

2.03 FERTILIZER

- A. Fertilizer must be standard commercial fertilizers supplied separately or in mixtures containing the percentages of total nitrogen, available phosphorus, and water-soluble potash. They must be applied at the rate and to the depth specified in this Specification, and must meet the specified requirements of the applicable state and federal laws. They must be furnished in standard containers with name, weight, and guaranteed analysis of contents clearly marked thereon. No cyanamide compounds or hydrated lime will be permitted in mixed fertilizers.
- B. The fertilizers may be supplied as a finely-ground fertilizer soluble in water, suitable for application by power sprayers or for dry application as granules.

2.04 SOILS FOR REPAIRS

- A. The soil for fill and topsoiling of areas to be repaired must be at least of equal quality to the topsoil as outlined in Section 02920, Topsoiling.

2.05 MULCH WITH TACKIFIER

- A. Mulch must be a hydraulic mulch that meets the requirements of Article 1081.06 (a) (2) for a Light-Duty Hydraulic Mulch of the Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction (S.S.R.B.C.), latest edition; except that the minimum application rate must be 2,500 lbs/acre instead of 2,000 lbs/acre and as further modified herein.

- B. Mulch fiber must be colored green to contrast the area on which the mulch is being applied and must not stain concrete or other surfaces with which it comes in contact.
- C. Prior to use of the mulch, the Contractor must submit the following to the Commissioner for review and approval:
 - 1. A notarized certification by the manufacturer that the mulch meets the requirements of these specifications.
 - 2. Property test results for the mulch including the C factor analytical results performed and certified by an approved accredited independent laboratory.

PART 3 CONSTRUCTION METHODS

3.01 ADVANCE PREPARATION AND CLEANUP

- A. After grading of areas has been completed and before applying fertilizer and ground limestone, areas to be seeded must be raked or otherwise cleared of stones, sticks, stumps, and other debris which might interfere with sowing of seed, growth of grasses, or subsequent maintenance of grass-covered areas. If any damage by erosion or other causes has occurred after the completion of grading and before beginning the application of fertilizer and ground limestone, the Contractor must repair such damage. This may include filling gullies, smoothing irregularities, and repairing other work related damages.
- B. An area to be seeded must be considered a satisfactory seedbed without additional treatment if it has recently been thoroughly loosened and worked to a depth of not less than 5 inches as a result of grading operations and, if immediately prior to seeding, the top 3 inches of soil is loose, friable, reasonably free from large clods, rocks, large roots, or other undesirable matter, and if shaped to the required grade.
- C. However, when the area to be seeded is sparsely sodded, weedy, barren and unworked, or packed and hard, any grass and weeds must first be cut or otherwise satisfactorily disposed of, and the soil then scarified or otherwise loosened to a depth not less than 5 inches. Clods must be broken and the top 3 inches of soil must be worked into a satisfactory seedbed by disking, or appropriate means.
- D. Lime if required must be sprayed only upon previously prepared seedbeds. After the applied lime mixture has dried, the lime must be worked into the top 3 inches after which the seedbed must again be properly graded and dressed to a smooth finish.
- E. Apply a starter fertilizer, derived from quick release or mineral sources of nutrients, containing a minimum of 45 pounds of nitrogen per acre, 45 pounds of phosphorus (P_2O_5) per acre, and 45 pounds of potassium (K_2O) per acre

immediately prior to the seed application described in paragraph 3.02. Additionally, apply a minimum of 70/lbs N/acre containing at least 75% SCU, XCU or nitroform type slow release nitrogen immediately prior to the application described in paragraph 3.02. These products can be applied separately or may be combined into a single application, providing a fertilizer formulator does the mixing. No on-site mixing will be allowed.

3.02 APPLICATION METHODS

- A. Seed Application: The Contractor must apply seed uniformly to the prepared seedbed in two directions perpendicular to each other, using one or more of the following methods as required:
1. Class 1 – Apply seed uniformly, using a slit seeder, cultipacker or Brillion-type seeder. Roll with corrugated roller after seeding.
 2. Class 2 - Broadcast seed and cover with a light disk harrow or cultipacker or other suitable equipment. Class 2 seed application to be done only with the approval of the Commissioner.
 3. Class 3 - Apply seed uniformly with a hydroseeder in a mixture not exceeding 220 pounds solids per 100 gallons of water. Class 3 seed application to be done only with the approval of the Commissioner.
- B. Mulch Application: After application of the seed using the approved methods above, mulch and mulch supertackifier must be applied immediately over the freshly seeded areas in opposing directions using the following rates:
1. Mulch 2500 lbs/acre (1250 lbs/acre per direction)
 2. Mulch supertackifier per manufacturer recommendations.
- Mulch must be applied in accordance with Article 251.03 (c), Method 3 of SSRBC, except that mulch supertackifier must be applied concurrently with mulch.
- C. Spraying Equipment: The spraying equipment must have a container or water tank equipped with a liquid level gauge calibrated to read in increments not larger than 50 gallons over the entire range of the tank capacity, mounted so as to be visible to the nozzle operator. The container or tank must also be equipped with a mechanical power-driven agitator capable of keeping all the solids in the mixture in complete suspension at all times until used.
1. The unit must also be equipped with a pressure pump capable of delivering 100 gallons per minute at a pressure of 100 pounds per square inch. The pump must be mounted in a line which will recirculate the mixture through the tank whenever it is not being sprayed from the nozzle. All pump passages and pipe lines must be capable of providing clearance for 5/8 inch solids. The power unit for the pump and agitator must have controls mounted so as to be accessible to the nozzle operator. There must be an indicating pressure gauge connected and mounted immediately at the back of the nozzle.

2. The nozzle pipe must be mounted on an elevated supporting stand in such a manner that it can be rotated through 360 degrees horizontally and inclined vertically from at least 20 degrees below to at least 60 degrees above the horizontal. There must be a quick-acting, three-way control valve connecting the recirculating line to the nozzle pipe and mounted so that the nozzle operator can control and regulate the amount of flow of mixture delivered to the nozzle. At least three different types of nozzles must be supplied so that mixtures may be properly sprayed over distance varying from 20 feet to 100 feet. One must be a close-range ribbon nozzle, one a medium-range ribbon nozzle, and one a long-range jet nozzle. For ease of removal and cleaning, all nozzles must be connected to the nozzle pipe by means of quick-release couplings.
 3. In order to reach areas inaccessible to the regular equipment, an extension hose at least 50 feet in length must be provided to which the nozzles may be connected.
- D. Mixtures: Lime, if required, must be applied separately, in the quantity specified, prior to the fertilizing and seeding operations. Not more than 220 pounds of lime must be added to and mixed with each 100 gallons of water. Mulch and mulch supertackifier must be mixed together and applied after seed application at the specified rates above but not more than 220 pounds combined solids per 100 gallons of water.
 - E. All water used must be obtained from fresh water sources and must be free from injurious chemicals and other toxic substances harmful to plant life. Brackish water must not be used at any time. The Contractor must identify to the Commissioner all sources of water at least 2 weeks prior to use. The Commissioner may take samples of the water at the source or from the tank at any time and have a laboratory test the samples for chemical and saline content. The Contractor must not use any water from any source which is disapproved by the Commissioner following such tests.
 - F. All mixtures must be constantly agitated from the time they are mixed until they are finally applied to the seedbed. All such mixtures must be used within 2 hours from the time they were mixed or they must be wasted and disposed of at locations acceptable to the Commissioner.
 - G. The mixtures must be applied by means of a high-pressure spray which will always be directed upward into the air so that the mixtures will fall to the ground like rain in a uniform spray. Nozzles or sprays will never be directed toward the ground in such a manner as might produce erosion or runoff.
 - H. Particular care must be exercised to insure that the application is made uniformly and at the prescribed rate and to guard against misses and overlapped areas. Proper predetermined quantities of the mixture in accordance with Specifications must be used to cover specified sections of known area. Checks on the rate and uniformity of application may be made by observing the degree of wetting of the

ground or by distributing test sheets or paper or pans over the area at intervals and observing the quantity of material deposited thereon.

3.03 MAINTENANCE OF SEEDED AREAS

- A. The Contractor must protect seeded areas against traffic or other use by warning signs or barricades, as approved by the Commissioner. Surfaces gullied or otherwise damaged following seeding must be repaired by regrading and reseeding as directed. The Contractor must mow, water as directed, and otherwise maintain seeded areas in a satisfactory condition until final inspection and acceptance of the work. Areas with excessive weed growth must be regraded and/or treated with an application of a select herbicide, at the approval of the Commissioner, and reseeded to establish a satisfactory stand of grass. Watering will only be accomplished at night or as directed by the Commissioner.
- B. When the seed application method outlined above is used for work done out of season, it will be required that the Contractor establish a good stand of grass of uniform color and density to the satisfaction of the Commissioner. If at the time when the Contract has been otherwise completed it is not possible to make an adequate determination of the color, density, and uniformity of such stand of grass, payment for the unaccepted portions of the areas seeded out of season will be withheld until such time as these requirements have been met.

3.04 TIME OF SEEDING

- A. The seeding and related operations must be performed during the following periods:
 - 1. Standard seeding must occur between March 15 and September 15. Apply at specified rate and mix according to 2.01C (Type 1).
 - 2. Late fall seeding must occur between September 16 and October 15 according to 2.01C (Type 2).
 - 3. Late Fall seeding can be done between October 16 and November 14 at the direction of the Commissioner (Type 2).
 - 4. Dormant seeding must occur between June 15 and August 15 at the discretion of the Commissioner and between November 15 and December 31 or until the ground becomes frozen according to 2.01C (Type 3).
 - 5. Seeding must be done immediately upon completion of work in a given area. The outlet channel, peripheral drain and other areas of work completed during the course of the Contract must be permanently seeded during the next seeding period after completion. If it is more than 45 days until the period, the Contractor must use temporary protection measures to prevent soil erosion, and they will be acceptable to the Commissioner.
 - 6. No seeding may occur between October 16 and November 14 (except as directed by the Commissioner in Section 3.04.A.3) and between January 1 and March 14.

PART 4 METHOD OF MEASUREMENT

4.01 Completed and approved work will be measured as follows:

- A. Seeding, Permanent. Permanent seeding must include seed bed preparation, including fertilization, and hydroseeding (seed, fertilizer, mulch, and mulch supertackifier).

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Accepted quantities ordered by the Commissioner and measured as described will be paid for under the items below. Such payment shall be full compensation for supply and distribution of all materials including water, nutrients, lime, mulch, and for all labor, tools, and incidentals necessary to complete this work.
- B. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|-----------------|-------|
| 02931-5.01 | SEED, PERMANENT | SQ YD |

END OF SECTION 02931

IRRIGATION SYSTEM
SECTION 02970

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Work under this Section included the removal of existing irrigation system segment at the median island location shown in the contract documents. The work also includes the replacement of the same irrigation system removed, by furnishing and installation of new irrigation system. The proposed placement and layout is not shown in the contract documents, but will be as directed by the commissioner.

1.02 SUBMITTALS:

- A. Prior to performing the Work, the Contractor must submit shop Drawings for new irrigation system for review and approval by the Commissioner.

1.03 QUALITY ASSURANCE

- A. Contractor Qualifications: Irrigation Maintenance Contractor must be performed only by a qualified Contractor. The term qualified means experienced in performing the Work required by this section. The qualified Contractor will be responsible for demonstrating to the Commissioner's satisfaction that he/she has sufficient experience in its role. The Installer must submit evidence of such qualifications upon request by the Commissioner.

PART 2 PRODUCTS

2.01 GENERAL

- A. All materials and equipment unless otherwise indicated will be provided by the Contractor. This includes all electrical, plumbing, and irrigation system components

2.02 MATERIAL:

PART 3 EXECUTION

3.01 PLACEMENT:

- A. System placement within the existing median will be as directed by the commissioner.

3.02 START UP

- A. Contractor must check all systems for proper operation. Lateral lines must be flushed out after removing the last sprinkler head or two at each end of the lateral. All heads are to be adjusted as necessary for unimpeded coverage.

PART 4 METHOD OF MEASUREMENT

- 4.01 The work for the Remove and Replace Irrigation System will not be measured, but will be included in the total Lump Sum for this item.

PART 5 BASIS OF PAYMENT

- 5.01 Payment for Remove and Replace Irrigation System will be at the contract unit price Lump Sum for all labor, equipment, tools, and all work necessary to complete the item.

- 5.02 Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--------------------------------------|-------|
| 02970-5.01 | REMOVE AND REPLACE IRRIGATION SYSTEM | L SUM |

END OF SECTION 02970

REINFORCEMENT BARS, EPOXY COATED
SECTION 03200A

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|--------------------|
| 508 | REINFORCEMENT BARS |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Shop Drawings
 - 2) Product Data
 - 3) Test Reports
 - 4) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per pound.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|----------------------------------|-------|
| 03200A-5.01 | REINFORCEMENT BARS, EPOXY COATED | POUND |

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BAR SPLICERS
SECTION 03200B

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|--------------------|
| 508 | REINFORCEMENT BARS |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Product Data
 - 2) Test Reports
 - 3) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per each.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--------------|------|
| 03200B-5.01 | BAR SPLICERS | EACH |

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CONCRETE STRUCTURES
SECTION 03300A

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.

- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|---------------------|
| 503 | CONCRETE STRUCTURES |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Concrete Pour Schedule
 - 2) Product Data
 - 3) Tests Procedures
 - 4) Test Reports
 - 5) Inspection of Batch Plant Operation
 - 6) Plant Inspection Reports
 - 7) Concrete Mix Design and Control
 - 8) Manufacturer’s Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per cubic yard.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|---------------------|-------|
| 03300A-5.01 | CONCRETE STRUCTURES | CU YD |

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CONCRETE SUPERSTRUCTURE
SECTION 03300B

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.

- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|---------------------|
| 503 | CONCRETE STRUCTURES |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Concrete Pour Schedule
 - 2) Product Data
 - 3) Tests Procedures
 - 4) Test Reports
 - 5) Inspection of Batch Plant Operation
 - 6) Plant Inspection Reports
 - 7) Concrete Mix Design and Control
 - 8) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per cubic yard.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|-------------------------|-------|
| 03300B-5.01 | CONCRETE SUPERSTRUCTURE | CU YD |

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CONCRETE SUPERSTRUCTURE (APPROACH SLAB)
SECTION 03300C

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|---------------------|
| 503 | CONCRETE STRUCTURES |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Concrete Pour Schedule
 - 2) Product Data
 - 3) Tests Procedures
 - 4) Test Reports
 - 5) Inspection of Batch Plant Operation
 - 6) Plant Inspection Reports
 - 7) Concrete Mix Design and Control
 - 8) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per cubic yard.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|---|-------|
| 03300C-5.01 | CONCRETE SUPERSTRUCTURE (APPROACH SLAB) | CU YD |

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BRIDGE DECK GROOVING
SECTION 03300D

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|---------------------|
| 503 | CONCRETE STRUCTURES |

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per square yard.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|----------------------|-------|
| 03300D-5.01 | BRIDGE DECK GROOVING | SQ YD |

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CONCRETE SEALER
SECTION 03300E

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.

- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|-----------------|
| 587 | CONCRETE SEALER |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Product Data
 - 2) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per square foot.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|-----------------|-------|
| 03300E-5.01 | CONCRETE SEALER | SQ FT |

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PROTECTIVE COAT
SECTION 03300F

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|---------------------|
| 503 | CONCRETE STRUCTURES |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Product Data
 - 2) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per square yard.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|-----------------|-------|
| 03300F-5.01 | PROTECTIVE COAT | SQ YD |

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FURNISHING AND ERECTING STRUCTURAL STEEL
SECTION 05120A

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|------------------|
| 505 | STEEL STRUCTURES |

| IDOT GBSP | TITLE |
|-----------|---|
| NO. 83 | HOT DIP GALVANIZING FOR STRUCTURAL STEEL, Revised: October 20, 2017 |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Shop Drawings
 - 2) Test Reports
 - 3) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

All structural steel shown on the plans will be included as structural steel, and the weight will be calculated based upon their actual density (mass).

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--|-------|
| 05120A-5.01 | FURNISHING AND ERECTING STRUCTURAL STEEL | L SUM |

IDOT GBSP NO. 83 - Hot Dip Galvanizing For Structural Steel

Effective: June 22, 1999

Revised: October 20, 2017

Description. This work shall consist of surface preparation and hot dip galvanizing all structural steel specified on the plans and painting of galvanized structural steel when specified on the plans.

Materials. Fasteners shall be ASTM F 3125, Grade 325, Type 1, High Strength bolts with matching nuts and washers.

Fabrication Requirements. Hot-dip galvanizing shall be indicated on the shop drawings. The fabricator shall coordinate with the galvanizer to incorporate additional steel details required to facilitate galvanizing of the steel. These additional details shall be indicated on the shop drawings.

To insure identification after galvanizing, piece marks shall be supplemented with metal tags for all items where fit-up requires matching specific pieces.

After fabrication (cutting, welding, drilling, etc.) is complete, all holes shall be deburred and all fins, scabs or other surface/edge anomalies shall be ground or repaired per ASTM A6. The items shall then be cleaned per Steel Structures Painting Council's Surface Preparation Specification SSPC-SP1 (Solvent Cleaning) and SSPC-SP6 (Commercial Blast Cleaning). All surfaces shall be inspected to verify no fins, scabs or other similar defects are present.

The Contractor shall consult with the galvanizer to insure proper removal of grease, paint and other deleterious materials prior to galvanizing.

Surface Preparation and Hot Dip Galvanizing

General. Surfaces of the structural steel specified on the plans shall be prepared and hot dip galvanized as described herein.

Cleaning Structural Steel. If rust, mill scale, dirt, oil, grease or other foreign substances have accumulated prior to galvanizing, steel surfaces shall be cleaned by a combination of caustic cleaning and cleaning according to SSPC-SP8 (Pickling).

Special attention shall be given to the cleaning of corners and reentrant angles.

Surface Preparation. A flux shall be applied to all steel surfaces to be galvanized. Any surfaces which will receive field-installed stud shear connectors shall not be galvanized within 2 in. (50 mm) of the stud location. Either the entire area receiving studs or just individual stud locations may be left ungalvanized. The following steel surfaces of bearings shall not be galvanized: stainless steel surfaces, surfaces which will be machined (except for fixed bearing sole plates), and surfaces which will have TFE, elastomer, or stainless steel parts bonded to them.

The cleaned surfaces shall be galvanized within 24 hours after cleaning, unless otherwise authorized by the Engineer.

Application of Hot Dip Galvanized Coating. Steel members, fabrications and assemblies shall be galvanized by the hot dip process in the shop according to AASHTO M 111.

Bolts, nuts, and washers shall be galvanized according to ASTM F 2329.

All steel shall be safeguarded against embrittlement according to ASTM A 143. Water quenching or chromate conversion coating shall not be used on any steel work that is to be painted. All galvanized steel work shall be handled in such a manner as to avoid any mechanical damage and to minimize distortion.

Beams and girders shall be handled, stored and transported with their webs vertical and with proper cushioning to prevent damage to the member and coating. Members shall be supported and externally stiffened during galvanizing to prevent permanent distortion.

Hot Dip Galvanized Coating Requirements. Coating weight, surface finish, appearance and adhesion shall conform to requirements of ASTM A 385, ASTM F2329, AASHTO M 111 or AASHTO M 232, as appropriate.

Any high spots of zinc coating, such as metal drip lines and rough edges, left by the galvanizing operation in areas that are to be field connected or in areas that are to be painted shall be removed by cleaning per SSPC-SP2 (Hand Tool Cleaning) or SSPC-SP3 (Power Tool Cleaning). The zinc shall be removed until it is level with the surrounding area, leaving at least the minimum required zinc thickness.

Shop assemblies producing field splices shall provide 1/8 in. (3 mm) minimum gaps between ends of members to be galvanized. At field splices of beams or girders, galvanizing exceeding 0.08 in. (2 mm) on the cross-sectional (end) face shall be partially removed until it is 0.04 in. to 0.08 in. (1 to 2 mm) thick.

Testing of Hot Dip Galvanized Coating. Inspection and testing of hot dip galvanized coatings shall follow the guidelines provided in the American Galvanizers Association publication "Inspection of Products Hot Dip Galvanized After Fabrication". Sampling, inspection, rejection and retesting for conformance with requirements shall be according to AASHTO M 111 or AASHTO M 232, as applicable. Coating thickness shall be measured according to AASHTO M 111, for magnetic thickness gage measurement or AASHTO M 232, as applicable.

All steel shall be visually inspected for finish and appearance.

Bolts, nuts, washers, and steel components shall be packaged according to ASTM F 2329. Identity of bolts, nuts and washers shall be maintained for lot-testing after galvanizing according to Article 505.04(f)(2) for high strength steel bolts.

A notarized certificate of compliance with the requirements listed herein shall be furnished. The certificate shall include a detailed description of the material processed and a statement that the processes used met or exceeded the requirements for successful galvanizing of the surface,

where applicable. The certificate shall be signed by the galvanizer.

Repair of Hot Dip Galvanized Coating. Surfaces with inadequate zinc thickness shall be repaired in the shop according to ASTM A 780 and AASHTO M 111.

Surfaces of galvanized steel that are damaged after the galvanizing operation shall be repaired according to ASTM A 780 whenever damage exceeds 3/16 in. (5 mm) in width and/or 4 in. (100 mm) in length. Damage that occurs in the shop shall be repaired in the shop. Damage that occurs during transport or in the field shall be repaired in the field.

Connection Treatment. After galvanizing and prior to shipping, contact surfaces for any bolted connections shall be roughened by hand wire brushing or according to SSPC-SP7 (Brush-Off Blast Cleaning). Power wire brushing is not allowed.

All bolt holes shall be reamed or drilled to their specified diameters after galvanizing. All bolts shall be installed after galvanizing.

Surface Preparation and Painting

Surface Preparation. When galvanized steel surfaces are specified to be painted they shall be clean and free of oil, grease, and other foreign substances. Surface preparation necessary to provide adequate adhesion of the coating shall be performed according to ASTM D6386. Surface preparation shall include, but not be limited to the following:

- All galvanized steel surfaces that are to be painted shall be cleaned according to SSPC-SP1 (Solvent Cleaning). After cleaning, all chemicals shall be thoroughly rinsed from the surface with a suitable solvent. The steel shall be allowed to completely dry prior to coating application.
- All galvanized steel surfaces that are to be painted shall be checked for the presence of chromate conversion coating according to ASTM D 6386 Appendix X1. Surfaces where chromate conversion coating is found shall be cleaned according to the same appendix and blown down with clean, compressed air according to ASTM D 6386 Section 6.1.
- All galvanized steel surfaces that are to be painted shall be checked for the presence of wet storage stain. Surfaces where wet storage stain is found shall be cleaned, rinsed and completely dried according to ASTM D 6386 Section 6.2.
- Following galvanizing, thickness readings shall verify the acceptable thickness of the galvanizing according to AASHTO M111/ASTM A123.

Paint Requirements. The paint materials (epoxy intermediate coat and aliphatic urethane finish coat) shall meet the requirements of the Articles 1008.05(d) and (e) of the Standard Specification.

All paint materials for the shop and field shall be supplied by the same manufacturer, and samples of components submitted for approval by the Department, before use.

Paint storage, mixing, and application shall be according to Section 506 of the Standard Specifications and the paint manufacturer's written instructions and product data sheets. In the event of a conflict the Contractor shall advise the Engineer and comply with the Engineer's written resolution. Until a resolution is provided, the most restrictive conditions shall apply.

Shop Application of the Paint System. The areas to be painted shall receive one full coat of an epoxy intermediate coat and one full coat of an aliphatic urethane finish coat. The film thickness of each coat shall be according to Article 506.09(f)(2).

Construction Requirements. The contact surfaces of splice flange connections (mating flange faces and areas under splice bolt heads and nuts) shall be free of paint prior to assembly. If white rust is visible on the mating flange surfaces, the steel shall be prepared by hand wire brushing or brush-off blasting according to SSPC-SP7. Power wire brushing is not allowed.

After field erection, the following areas shall be prepared by cleaning according to SSPC-SP1 (Solvent Cleaning), tie- or wash-coated if applicable, and then painted or touched up with the paint specified for shop application (the intermediate coat and/or the finish coat):

- exposed unpainted areas at bolted connections
- areas where the shop paint has been damaged
- any other unpainted, exposed areas as directed by the Engineer.

Special Instructions. Painting Date/System Code. At the completion of the work, the Contractor shall stencil in contrasting color paint the date of painting the bridge and the paint type code from the Structure Information and Procedure Manual for the system used according to Article 506.10(i). The code designation for galvanizing is "V". If painting of the structural steel is not specified then the word "PAINTED" may be omitted, the month and year shall then correspond to the date the stencil is applied.

Basis of Payment. The cost of all surface preparation, galvanizing, painting and all other work described herein shall be considered as included in the unit price bid for the applicable pay items to be galvanized and painted, according to the Standard Specifications.

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STUD SHEAR CONNECTORS
SECTION 05120B

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|------------------|
| 505 | STEEL STRUCTURES |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Product Data
 - 2) Test Reports
 - 3) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per each.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|-----------------------|------|
| 05120B-5.01 | STUD SHEAR CONNECTORS | EACH |

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ALUMINUM RAILING, TYPE L
SECTION 05500A

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.

- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|----------------|
| 509 | METAL RAILINGS |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Shop Drawings
 - 2) Product Data
 - 3) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per foot.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--------------------------|------|
| 05500A-5.01 | ALUMINUM RAILING, TYPE L | FOOT |

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NAME PLATES
SECTION 05500B

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT STANDARD | TITLE |
|---------------|------------------------|
| 515001 | NAME PLATE FOR BRIDGES |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Shop Drawings
 - 2) Product Data

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per each.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|-------------|------|
| 05500B-5.01 | NAME PLATES | EACH |

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ANCHOR BOLTS
SECTION 05800A

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|----------|
| 521 | BEARINGS |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Product Data
 - 2) Test Reports
 - 3) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per each.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|------------------|------|
| 05800A-5.01 | ANCHOR BOLTS, 1" | EACH |

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ELASTOMERIC BEARING ASSEMBLY, TYPE I
SECTION 05800B

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|----------|
| 521 | BEARINGS |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Shop Drawings
 - 2) Product Data
 - 3) Test Reports
 - 4) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per each.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--------------------------------------|------|
| 05800B-5.01 | ELASTOMERIC BEARING ASSEMBLY, TYPE I | EACH |

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PREFORMED JOINT STRIP SEAL
SECTION 05800C

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. General: Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish all labor, material and equipment required to perform the work as shown on the drawings and as directed by the Commissioner. The work shall conform to the applicable portions of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, adopted April 1, 2016, and Supplemental Specifications and Recurring Special Provisions, adopted April 1, 2018 except as herein modified.

1.02 RELATED WORK

| IDOT ARTICLE | TITLE |
|--------------|-------------------------|
| 520 | BRIDGE EXPANSION JOINTS |

1.03 SUBMITTALS

- A. Submit the following:
 - 1) Shop Drawings
 - 2) Product Data
 - 3) Test Reports
 - 4) Manufacturer's Certification

PART 2 – PRODUCTS (NOT MODIFIED)

PART 3 – EXECUTION (NOT MODIFIED)

PART 4 – METHOD OF MEASUREMENT

This work will be measured for payment per foot.

PART 5 – BASIS OF PAYMENT

Payment will be made at the contract unit price under the following item:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|----------------------------|------|
| 05800C-5.01 | PREFORMED JOINT STRIP SEAL | FOOT |

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BOLLARDS
SECTION 10452

PART 1 GENERAL

1.1 SECTION INCLUDES:

- A. Furnish and install concrete filled metal pipe bollards per these Specifications, the Plan details, or as directed by the Commissioner. Work under this Section is subject to the requirements of the Contract Documents.

1.2 RELATED WORK:

- A. Related work specified elsewhere includes:
 - 1. Section 02714 – Concrete Pavements

1.3 STANDARD SPECIFICATIONS:

- A. The Work must conform to all the applicable portions of Section 505 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition, including latest revisions except as modified herein.

1.4 DELIVERY, STORAGE AND HANDLING:

- A. Materials must be delivered to the Project and stored in strict accordance with the Manufacturer's printed directions, copies of which must be furnished to the Commissioner.
- B. Protection - Protect materials against all damage by approved means during transportation, storage and erection and until completion of construction work. All unsatisfactory materials must be removed from the premises, and all damaged materials replaced with new materials.

PART 2 MATERIALS

2.1 BOLLARDS:

- A. Bollards must be 8" diameter steel tube, ASTM Grade A 512 with a 0.375" wall thickness or as specified in the Contract Documents.
- B. Bollards must not be painted. Bollards must be sleeved with high-visibility

anti-static additives to resist fading, rusting and cracking.

- C. Bollards must have two reflective strips on the outer sleeve. These strips must not be positioned less than one (1) inch from the top of the bollard.

2.2 FILL CONCRETE:

- A. See Section 02714- Concrete Pavements for the bollard fill concrete specification.

PART 3 CONSTRUCTION METHODS

3.1 BOLLARD INSTALLATION:

- A. Bollards must be prepared and installed at the designated locations in conformity with the details in the Plans.

PART 4 METHOD OF MEASUREMENT

4.1 MEASUREMENT:

- A. Bollards will be measured for payment per each bollard furnished, constructed and installed in accordance with this Section and accepted by the Commissioner.

PART 5 BASIS OF PAYMENT

5.1 PAYMENT:

- A. Payment will be made at the Contract unit price per each for Bollards, which will be compensation in full for providing all labor, equipment, materials and other appurtenant material including excavation and backfilling and all work necessary to construct bollards in conformance with the Plans and this Section.
- B. There will be no additional compensation for hauling away and disposing of all removed material.
- C. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|-------------|------|
| 10452-5.01 | BOLLARDS | EACH |

END OF SECTION 10452

BASIC ELECTRICAL REQUIREMENTS

SECTION 16010

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. Apparatus, appliance, material or work not shown on the Drawings, but mentioned in the Specifications, or vice versa, or any accessories necessary to make the work complete and ready for operation without additional expense to the City.
- C. The Contractor must furnish, erect, install, connect, clean, adjust, test and condition all manufactured articles, materials and equipment, and place in service in accordance with the manufacturer's directions and recommendations except as otherwise noted on the Drawing or specified herein.

1.02 RELATED WORK:

- A. As specified in the following divisions:
 - 1. 16100 – Basic Materials and Methods
 - 2. 16123 – Building Wire and Cable
 - 3. 16195 – Electrical Identification
 - 4. 16452 – Grounding
 - 5. 16950 – Testing

1.03 REFERENCES:

- A. Materials and installation must comply with all codes, laws and ordinances of Federal, State and local governing bodies having jurisdiction.
- B. In every installation where regulations of electric and/or telephone companies apply, conformance with their regulations must be mandatory and any costs incurred must be included in the Contract.
- C. In case of differences between building codes, State and Federal laws, local ordinances and utility company regulations and the Contract Documents, the most stringent must apply.
- D. All design, equipment and materials specified must conform to all acts, laws, rules and regulation of the following organizations:

1. City of Chicago Electrical Code (CEC) must take jurisdictional precedence over all other authoritative bodies.
 2. National Electrical Code (NEC) (ANSI/NFPA 70).
 3. National Electrical Safety Code (NESC-ANSI C2).
 4. American National Standards Institute (ANSI).
 5. National Fire Protection Association (NFPA).
 6. Institute of Electrical and Electronics Engineers (IEEE).
 7. Insulated Cable Engineers Association (ICEA).
 8. National Electrical Manufacturers Association (NECA).
 9. Illuminating Engineering Society (IES).
 10. Underwriters Laboratories, Inc. (UL)
 11. Canadian Standards Association (CSA).
 12. Occupational Safety and Health Administration (OSHA).
 13. Americans with Disabilities Act (ADA).
 14. International Association of Electrical Inspectors (IAEI)
SOARES – Book on Grounding.
 15. International Electrical Testing Association (NETA)
NETA – ATS- Acceptance Testing Specifications for
Electrical Power Distribution Equipment and Systems.
- E. Should Work be performed which does not comply with the requirements of the applicable building codes, State and Federal laws, local ordinances, industry standards, utility company regulations and the Contract Documents changes for compliance must be done by the Contractor at no cost to the City.
- F. The Contractor must secure and pay for all permits, governmental fees, taxes and licenses necessary for the proper execution and completion of the electrical work.
- G. The Contractor must submit to governmental agencies and utility companies Shop Drawings, which are required by these agencies, for the approval.
- H. The Contractor will notify the Commissioner of any materials or apparatus believed to be inadequate, unsuitable, in violation of laws, ordinances, rules or regulations of authorities having jurisdiction.

1.04 SUBMITTALS:

- A. The Contractor must submit Project data to the Commissioner prior to purchasing and installation. The data must include, but not be limited to, the following:

1. Installation design Drawings - schematic, wiring, and one line diagrams; lighting panel schedules; lighting; conduit; duct banks; conduit and cable schedules; grounding; symbols and legends; etc. must be included.
2. The equipment manufacturers' schematic diagrams must be "JIC" ladder type. Schematics must identify all devices, wire codes, and terminal numbers.
3. The equipment manufacturers' wiring diagrams must show terminal blocks for external wiring. Wiring diagrams must identify all devices, wire codes, and terminal numbers.
4. The equipment manufacturers' internal point to point and external wiring diagrams between cubicles, panels and components within the equipment line up must be provided.
5. Catalog cuts and major electrical equipment manufacturers' Drawings must include, but are not limited to, relays, meters, current and potential transformers, disconnect switches, fuses, contactors, lighting and more.
6. Complete descriptive literature, performance and test data and rating data for all equipment must be provided.
7. Instruction books, Operation and Maintenance manuals with spare parts must be provided.
8. Complete and accurate "As Built" Drawings must be provided by the Contractor to the Consulting Engineer for verification and drafting.

B. Shop Drawings

1. The Contractor must submit Shop Drawings and Samples in accordance with the Contract Documents and supplementary requirements as stated under each Section of the Specifications.
2. The Contractor must make submittals in accordance with the approved CPM Schedule before any material or equipment is purchased. The submittals must be reviewed by the Commissioner for compliance with the Contract Documents.
3. Shop Drawings must include manufacturers' names, catalog numbers, cuts, diagrams, schedules and other such descriptive data specifically prepared for the Work by the Contractor, Sub-contractor and/or manufacturer to illustrate that the materials, equipment or system conform to the Contract requirements.
4. Additional submittal requirements are described in individual sections of the Specifications.
5. Any listed materials, fixtures, apparatus, or equipment that are not in accordance with the Contract Document requirements can and must be rejected for use in this Contract.
6. Any materials, fixtures, apparatus or equipment installed without reviewed and accepted submittals must be removed by the Contractor and replaced at the direction of the Commissioner and without cost to the City.

7. Substitutions to listed acceptable manufacturers equipment and material must not be accepted until the Contractor has complied with the requirements of Part Two, Article VI of the Contract Documents.

C. Installation Drawings

1. The initial copy of all installation Drawings must be submitted to the Commissioner for review.
2. The installation Drawings must be made under the direction and supervision of the Contractor and must show all electrical work including, but not limited to, conduit, wiring, electrical equipment and devices, lighting fixture locations and elevations, points where conduit enters or leaves structural slabs and walls, junction boxes, conduit supports and inserts. Symbol representation for home run circuits must not be acceptable. These Drawings must include all ductbank work, embedded conduit plans, electrical room layouts and elevations as well as all circuiting and locations of all electrical equipment.
3. In addition to the preparation and submittal of Shop Drawings for manufactured electrical equipment and materials, the Contractor must prepare and maintain in current status, a complete set of detailed, completely circuited, and dimensioned electrical construction Drawings for all electrical work included under this Contract. These Drawings must be made at the Contractors expense.
4. No electrical work will begin until these installation Drawings are so drawn, and thereafter finally accepted by the Commissioner.
5. The complete electrical distribution system from the sources, including each branch circuit panelboard, must be shown and dimensioned exactly as to be installed, with all feeders located on the installation Drawings. Major equipment, lighting controls and apparatus must be shown to scale and properly located.
6. The Contractor must provide a separate set of installation Drawings for the lighting system; a separate set of installation Drawings for the power and control; and a separate set of installation Drawings for the special systems.
7. The Contractor must provide a single line diagram describing the power distribution system. This diagram must include ratings for all equipment and cable sizes from the service connection to the 120 Volt lighting and distribution panels.
8. The installation Drawings must include floor plans and reflected ceiling plans with electrical layouts drawn at a scale (or scales) as required with a minimum scale of 1/8 inch equal 1'-0". It is intended that installation Drawings of each trade be the same scale(s) in order to permit respective plans to be superimposed upon all others of each trade.
9. In addition to the floor plans, the layouts of all congested areas such as mechanical and/or electrical equipment rooms, and all functionally critical

areas must be drawn at a minimum scale of 1/4 inch equals 1'-0", and with all details of construction shown. Additional installation Drawings may be requested if in the opinion of the Commissioner they are required to properly coordinate the Project.

10. The installation Drawings must include schedules for all panelboards. Schedules must depict the bus arrangement of the panelboard, the size of all circuit breakers, the connected load on each breaker, and a description of the load and it's location.
11. The installation Drawings must indicate the electrical installation exactly as to be constructed and therefore must be periodically revised to reflect all changes inclusive of those required by the Commissioner, those which are or have been found necessary in the field, those which may be suggested by the Contractor and approved by the Commissioner, etc.
12. All installation Drawings must be submitted in pdf format on sheets of the same size and with the same border lines and title blocks as the Chicago Department of Aviation Drawings, with the Contractor's name added.
13. Revisions must be performed when considered necessary by the Commissioner or the Contractor in order to facilitate proper coordination.
14. The Contractor must be responsible for the coordination of electrical work with the work of all other trades and must, in preparing the installation Drawings, continually check the work of all other trades (inclusive of that indicated by Shop Drawings) in order to avoid possible installation conflicts arising therefrom. It must be understood that the work shown on the installation Drawings has been so coordinated. In the event of conflicts or interferences that cannot be resolved in the field, the Contractor must request a written clarification from the Commissioner.
15. Upon completion, the initial installation Drawings, and all revised installation Drawings thereafter, must be dated and certified as having been fully coordinated by the Contractor. It must then be understood that the work shown thereupon is ready for construction.
16. All installation Drawings must be made in accordance with an approved schedule, prepared by the Contractor, and arranged to coincide with actual construction in such a manner as to allow the latter work to proceed without delay.
17. If, in the opinion of the Commissioner, the installation Drawings are in acceptable condition after each has been finally revised and accepted, the Contractor may submit same as the field record Drawings called for elsewhere in the Specifications.
18. The Contractor must include wiring diagrams and schematic diagrams. Each schematic diagram must be "JIC" ladder type. Wire and terminal numbers must be shown on all schematic and wiring diagrams.
19. The minimum drafting letter size must be 1/8 inch in height and must be block type lettering.

- D. The Contractor must submit test reports as described under this Contract.

1.05 QUALITY CONTROL:

- A. After all equipment, devices and raceways are installed and wires and cables are in place and connected to devices and equipment test the system for continuity, proper phase rotation, short circuit, improper grounds, and other defects. Testing must be in accordance manufacturers' recommendations, individual sections of this Specification, and Section 16950 - Testing of these Specifications.
- B. The Contractor must be responsible for protecting all equipment and systems against harmful exposures to, or accumulations of dust and moisture, flooding, corrosion or other forms of damage and must clean and restore damaged finishes as may be required to place installations in a "Like New" condition before acceptance by the Commissioner.

1.06 DELIVERY STORAGE AND HANDLING:

- A. Equipment and materials must be delivered to the site and stored in the original containers, suitably sheltered from the elements and mechanical injury, but readily accessible for inspection until installed.
 - 1. Items subject to moisture damage must be stored in dry, heated spaces.
 - 2. Manufacturer's directions must be followed in the delivery, handling, storage, protection, installation and operation of all equipment and materials.
- B. The Contractor must coordinate with the Commissioner the movement of heavy machinery, equipment and heavy parts thereof brought into or onto the building or premises.
- C. Conduit openings must be kept closed by means of plugs or caps to prevent the entrance of foreign matter.
- D. The Contractor must cover all fixtures, equipment and apparatus as required to protect them against dirt, water, chemical, solar, or mechanical damage. The Contractor must also provide any supplementary heating and cooling required to prevent moisture and thermal damage.
- E. Equipment must be inherently safe and moving parts must be covered with guards.
- F. Equipment in storage having moving parts, which may be damaged or distorted by being idle, must be rotated or exercised periodically and all lubricants must be properly maintained.
- G. Additional requirements are described in individual sections of these Specifications.

- H. The contractor shall obtain permission from the Commissioner for the use of permanent light fixtures during construction.

1.07 WARRANTIES AND GUARANTEES:

- A. The Contractor must repair or replace defective materials and workmanship during the Contract Period and for 1 year from the date of Substantial Completion of the Project. Defective material and workmanship include, but are not limited to, the following:
 - 1. Raceway installations
 - 2. Wiring
 - 3. Light Fixtures
 - 4. Lighting Controls

1.08 EXTRA MATERIALS AND SPARE PARTS:

- A. Where spare parts or extra materials are called for in any Specification Section they must be supplied.
- B. The Contractor must turn over to the City all spare parts and extra materials in the original factory packaging.
- C. The Contractor must supply spare parts as recommended by the various equipment manufacturers. These must be of the types and quantities shown in the Operation and Maintenance Manuals.

1.09 SPECIAL REQUIREMENTS:

- A. Field Measurements - Before proceeding with the fabrication of the Work, the Contractor must verify all dimensions and take such measurements as are required for proper fabrication and erection of the Work.
- B. Coordination - Coordinate work of this Section with adjacent work of other trades.

1.10 CONTRACT DRAWINGS:

- A. The Drawings are diagrammatic and/or home-run type which are intended to convey the scope of work and indicate the general arrangement and/or sizes of conduit, equipment, fixtures and other work included in the Contract.
- B. The location of items required by the Contract Documents are not definitely fixed by dimensions and are approximate only. The exact locations necessary to secure the best conditions and results must be determined at the site and will be subject to the review of the Commissioner.
- C. The Contractor must coordinate the location of the lighting fixtures, pull boxes, conduit racks, intercommunication speakers, etc. with the location of the mechanical equipment.

- D. The Contractor must lay out the Work, check Drawings of all trades to verify spaces in which Work must be installed, and maintain maximum headroom and space conditions at all points.
 - 1. Where headroom or space conditions appear inadequate, the Contractor will notify the Commissioner, in writing, before proceeding with installation.
 - 2. Any minor changes in the locations of equipment, fixtures, lighting fixtures, conduits, outlets, devices, etc., from those locations as shown on the Contract Drawings must be made without extra charge to the Contract. A minor change in location must be considered to be within 10 feet of the location as may be scaled from the Drawings for all interior work and within 25 feet for all exterior work.

1.11 EXECUTION, CORRELATION AND INTENT OF DOCUMENTS:

- A. Scaled measurements from Drawings will not be used to determine installation locations.

1.12 INSTRUCTIONS AND ADJUSTMENTS:

- A. Before Final Completion and before final Contract payment is made, the Contractor must demonstrate and explain to the Commissioner the function, operation and maintenance of all equipment and systems installed.
- B. The primary adjustments of the system(s) must be accomplished by the Contractor to the complete satisfaction of the Commissioner at the time of completion of the installation.
- C. Where required in individual sections of this Specification, the Contractor will arrange for training City personnel as specified.

1.13 OPERATING AND MAINTENANCE MANUAL:

- A. General - Assemble manuals to include definite and specific information and instructions on materials, apparatus, equipment and systems provided under the Contract. Include only the latest standard commercial data.
 - 1. Maintenance period to be represented by the manufacturers' maintenance data is five (5) years.
 - 2. Coordinate contents of manuals with the actual needs of the City's staff.
- B. Contents - Include for each item the following data, as applicable, edited to include items specific to this Contract. Make data, including notations, completely legible - typewritten or printed.
 - 1. Manufacturer's operating instructions, maintenance and repair manuals which set forth the manner of operation, precautions, care to be followed and periodic preventive maintenance requirements.
 - 2. Final accepted Shop Drawings, Product Data and catalog cuts, including final comments and responses.

3. Printed Data - Manufacturer's original catalog cuts, brochures, operating and maintenance data.
4. Manufacturer's recommended maintenance and cleaning procedures, methods and materials for exposed finish.
5. Manufacturer's Specifications, including performance curves, wiring diagrams, and tabulation of sizes and identifying numbers.
6. Complete and detailed material list and parts list and assembly drawing.
7. Recommended inventory of spare parts and emergency parts and sources of purchase.
8. Governing agency and manufacturer test certificates, permits and inspection reports, including pressure test, insurance inspections and approvals, and shop or field performance tests.
9. Certified factory and field performance report as required by the Contract Documents
10. Final compliance certificates as required by the Contract Documents.
11. Manufacturer's guarantee or warranty as normally provided and as specifically required by the Contract Documents.
12. An index of volumes, in each volume of multiple volume systems.
13. An index in and for each volume. List and combine the literature, for each system, in the sequence of operation.
14. Name, address and telephone numbers of or, Subcontractors, suppliers, and installers.
15. Name, address and telephone number of manufacturer's nearest service representative.
16. Name, address and telephone number of nearest parts vendor and service agency.
17. Anticipated date City assumes responsibility for maintenance.
18. Description of system and component parts.
19. Pre-operation check or inspection list.
20. Procedures for starting, operating and stopping equipment.

21. Post-operation check or shut down list.
22. Inspection and adjustment procedures.
23. Emergency operating instructions.
24. Accepted test data.
25. Maintenance schedules and procedures.
26. One (1) copy of each wiring diagram.

27. One (1) copy of each piping diagram.
 28. One (1) copy of each duct diagram.
 29. Manufacturer's parts list with catalog names, numbers and illustrations.
 30. An exploded view of each piece of the equipment with part designations.
 31. List of special tools and test equipment required for the operation, maintenance, adjustment, testings, and repair of the equipment, instructions and components. Include lubricants, fuels, identification systems, control sequences, hazards, start up, shut down, noise and vibration adjustments, safety procedures, economy and efficiency adjustments and effective energy utilization.
 32. Scale and corrosion control procedures.
 33. Dismantling and re-assembly instructions.
 34. Trouble shooting, repair instructions.
 35. Calibration procedures.
 36. Ordering information.
- C. Binding - Assemble each group of documents for materials, apparatus, equipment or systems in binders identified for the items covered. Organize the contents in binders as follows:
1. Group documents for each item in the order listed above for contents.
 2. Index group of documents for each item in accordance with the filing system of the Contract Specification format.
 3. Fold Drawings and other documents larger than 8-1/2" x 11" to properly fit in binders so that they can be fully unfolded without removal from the binder. Reinforce edges of large Drawings.
 4. Provide each binder with a Table of Contents.

1.14 BINDERS:

- A. General - Hard-cover, three-hole, D-ring, loose leaf binders of size using standard 8-1/2" x 11" sheets. Binding is subject to the approval of the Commissioner.
- B. Quantity - As required for the amount of data to be contained.
- C. Flysheets - Separate each portion of the manual with colored, neatly prepared flysheets briefly describing contents of the ensuing portion.
- D. Cover - Clearly identify the manual on the cover with at least the following information:
 1. OPERATION AND MAINTENANCE INSTRUCTIONS
 2. Chicago O'Hare International Airport
 3. City of Chicago

4. (Complete Project name and Project number)

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT:

- A. Materials and equipment must be new and must be labeled in accordance with CEC Section 14-64-010 and must bear the manufacturer's name, model number and other identification markings.
- B. Materials and equipment must be the standard product as may be modified by these Specifications, of a specified manufacturer regularly engaged in the production of the required type of material or equipment for at least five (5) years (unless specifically exempted by the Commissioner) and must be the manufacturer's latest design with published properties.
- C. Equipment and materials of the same general type must be of the same manufacturer throughout the Project to provide uniform appearance, operation and maintenance.
- D. Equipment and materials must be without blemish or defect and must not be used for temporary light or power purposes, including lamps, without the Commissioner's written authorization.
- E. Equipment and materials must comply with the requirements of the Contract Documents.

PART 3 EXECUTION

3.01 INSTALLATION OF WORK:

- A. The Contractor must perform all work with trained mechanics of the particular trade involved in a neat and workmanlike manner as accepted by the Commissioner.
- B. With the acceptance of the Commissioner and without additional cost to the City, the Contractor must make minor modifications in the Work as required by structural interferences, by interferences with work of other trades and for proper execution of the Work.
- C. Work installed before coordinating with other trades so as to cause interferences with the Work of such other trades will be changed as directed by the Commissioner to correct such condition without cost to the City.
- D. The equipment must be installed with ample space allowed for removal, repair or changes to equipment. Ready accessibility to removable parts of equipment and to wiring must be provided without moving other equipment which is to be installed or which is in place.
- E. The Contractor must compare the Drawings and Specifications, checking all

measurements to determine the intent of the Contract Documents. Any discrepancies will be brought to the Commissioner's attention for interpretation.

- F. Locations of electrical outlets, lighting panels, cabinets, equipment, etc. are approximate and exact locations must be determined by the Contractor at the Project site.
- G. The Contractor must refer to Contract Documents for details, reflected ceiling plans, and large scale Drawings.

3.02 EQUIPMENT NOISE LIMITATION:

- A. Noise levels of electrical devices and equipment must be within acceptable limits as established by NEMA or other valid noise rating agencies. Commissioner's acceptance will be based on practical and reasonable considerations of occupancy requirements.
- B. The Contractor must check and tighten the fastenings of sheet metal plates, covers, doors, and trims to prevent vibration and chatter under normal conditions of use.
- C. When located other than in high-noise-level equipment rooms, the enclosures or solenoid-operated switching devices and other noise-producing devices must have anti-vibration mountings and non-combustible sound-absorbing linings.
- D. Transformers, reactors, dimmers, lamp ballasts, and solenoids must be designed and rated for "quiet" operation.
- E. The Contractor must remove and replace any individual electrical item or device that is found to produce a sound energy output exceeding that of other identical devices installed on this Project or the requirements of the Contract Documents.

3.03 TRANSMISSION OF VIBRATION:

- A. Electrical equipment, conduit, and fittings must not be mounted to or supported by elements subject to vibration except by methods which must prevent transmission thereof.
- B. Where flexible conduit lengths are utilized as a means of isolating equipment and conduit systems vibration, care must be exercised to assure continuity of ground throughout.

3.04 PROTECTION:

- A. The Contractor must protect conduit and wireway openings against the entrance of foreign matter by means of plugs or caps. The use of such materials as tape, plastic bags, paper, rags, etc. is expressly forbidden. For conduits with threaded ends, as required by the Specifications, the Contractor must provide threaded caps for the protection of the conduit end.

- B. The Contractor must cover fixtures, materials, equipment and devices furnished or installed under this Contract or otherwise protect against damage, before, during, and after installation.
- C. Fixtures, materials, equipment, or devices damaged prior to final acceptance of the Work must be restored to their original condition or replaced at no cost to the City.
- D. Equipment must be inherently safe and moving parts must be covered with guards.

3.05 NEMA RATINGS:

- A. NEMA 1 - materials and construction is limited to interior walls, finished rooms, electrical rooms, unless otherwise noted, and ceiling spaces except where the ceiling space is used as an air plenum.
- B. NEMA 12 - materials and construction must be employed in areas where air supply and/or return systems are located, i.e. fan rooms. NEMA 12 must also be used in enclosed garages above Code required limits, in areas such as baggage handling, mechanical rooms not wet rated, or as identified on the Drawings.
- C. NEMA 4X - materials and construction must be employed in all exterior areas, wet areas and in interior areas where wash down may occur, or as noted on the Drawings. When called for this material must be made of Grade 316 Stainless Steel.
- D. NEMA 7 & 9 - materials and construction must be employed in those areas so defined by either the Chicago Electrical Code or the National Electrical Code.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Measurement of electrical equipment removal and reinstallation will be measured per each unit removed and reinstalled completed, ready for operation, and accepted as satisfactory by the Commissioner.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Payment for electrical equipment removal and reinstallations will be made at the contract unit price per each removed and installed by the Contractor and accepted by the Commissioner. This price includes full compensation for furnishing all materials and for all preparation and installation of these materials, and for all labor, equipment, tools, and all work necessary to complete this item.

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--|------|
| 16010-5.01 | REMOVAL OF LIGHTING UNIT, NO SALVAGE | EACH |
| 16010-5.02 | REMOVE AND REINSTALL VIDEO CAMERA AND EQUIPMENT | EACH |
| 16010-5.03 | REMOVE AND REINSTALL SIGN MESSAGE, ELECTRICALLY ILLUMINATED, BRACKET MOUNTED | EACH |

END OF SECTION 16010

BASIC MATERIALS AND METHODS
SECTION 16100

PART 1 GENERAL

1.1 SECTION INCLUDES:

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. Furnish and install all electrical work, materials and accessories indicated schematically by Drawings, schedules and as specified herein including, but not limited to, the following:
 - 1. Rigid Galvanized Steel Conduit (RGSC)
 - 2. RGS conduit with PVC coating
 - 3. Electrical Metallic Tubing (EMT)
 - 4. Flexible Metal Conduit (FMC)
 - 5. Intermediate Metal Conduit (IMC)
 - 6. Liquid-tight Flexible Metal Conduit (LTFC)
 - 7. Underground PVC Conduit
 - 8. Bushings
 - 9. Fittings
 - 10. Boxes
 - 11. Wire and Cable

1.2 RELATED WORK:

- A. As specified in the following divisions:
 - 1. 16010 – Basic Electrical Requirements
 - 2. 16123 – Building Wire and Cable
 - 3. 16195 – Electrical Identification
 - 4. 16452 – Grounding
 - 5. 16950 – Testing

1.3 REFERENCES:

- A. See Specification Section 16010 1.03.

1.4 SUBMITTALS:

- A. See Specification Section 16010 1.04.
- B. The Contractor must submit with the wire submittal a listing of the code numbers used by the Manufacturer of the wire/cable the Contractor is submitting.

1.5 QUALITY CONTROL:

- A. See Specification Section 16010 1.05.

1.6 DELIVERY STORAGE AND HANDLING:

- A. See Specification Section 16010 1.06.

1.7 WARRANTIES AND GUARANTEES:

- A. See Specification Section 16010 1.07.

1.8 EXTRA MATERIALS AND SPARE PARTS:

- A. None required

1.9 ENVIRONMENTAL REQUIREMENTS:

- A. None required

1.10 SPECIAL REQUIREMENTS:

- A. Field Measurements - Before proceeding with the fabrication of the Work, the Contractor must verify all dimensions and take such measurements as are required for proper fabrication and erection of the Work.
- B. Coordination - Coordinate Work of this section with related Work specified in the other divisions/sections of the Contract Documents.

PART 2 PRODUCTS

2.1 VIBRATION ISOLATION:

- A. Vibration producing equipment must have either spring elements in the hanger rods or isolation pads under the equipment.
- B. Conduit connections to vibration producing equipment must be made with flexible conduit, using either FMC or LTFC as required.
- C. Acceptable manufacturers include: Barry Division of Barry Wright Corp., Consolidated Kinetics Corp. or Mason Industries.

2.2 CONDUIT AND FITTINGS:

A. Rigid Galvanized Steel Conduit (RGSC):

1. Conduit and fittings must be rigid galvanized steel, heavy wall type, hot-dipped galvanized with zinc-coated threads and acceptable agency labeled.
2. Rigid Galvanized Steel conduit and couplings must be threaded, rigid steel, hot-dipped galvanized after fabrication and must be in accordance with UL 6, Federal Specification WW-C-581d and ANSI Standard C80.1.
3. RGSC must be used for all exposed work, unless permitted otherwise in these Specifications, outdoor conduit runs and for all conduit work installed in slabs.
4. Split, compression or setscrew couplings and connectors are not acceptable. All connections and fittings must be threaded.

B. PVC Coated RGS Conduit

1. PVC coated rigid steel conduit, including elbows and fittings must be made with RGS conduit, conforming to the RGSC Section if this Specification, to which is bonded a Polyvinyl chloride (PVC) coating for the protection of the conduit.
2. The minimum thickness of the exterior coating must be 40 mils.
3. A Urethane chemical coating must be uniformly and consistently applied to the interior of the conduit and fittings. The internal coating must be applied at a minimum thickness of 2 mils.
4. The PVC coated galvanized rigid conduit must be U.L. listed / labeled. The Manufacturer must submit certified test results from a recognized independent testing company validating that their product meets or exceeds the requirements of ASTM D870-02 Testing Water Resistance of PVC Coating Using Water Immersion and ASTM D2247-02 Testing Water Resistance of PVC Coating in 100% Relative Humidity, to signify compliance to the adhesion performance standards.
5. PVC coated conduit must conform to NEMA Standard RN1-1986.
6. All fittings and components for use with PVC coated conduits must be PVC coated as specified in this Specification. Each coupling must be furnished loose with each length of the conduit and must have a PVC sleeve extending one (1) pipe diameter, or 2 inches, whichever is greater, beyond the end of the coupling. The inside diameter of the sleeve must be the same as the outside diameter of the IPS conduit used with it. The wall thickness of the sleeve must be the same as the PVC coating in the conduit. All screws for fittings which are PVC Coated must be Stainless Steel.
7. PVC coated conduit must be used in chemical environments, and for exterior work and underground ductbanks where so specified.

- C. Any portion of the conduit system that shows corrosion within the guarantee/warranty period must be replaced at no cost to the City.
- D. The minimum conduit size, unless specified otherwise, is 3/4 inch.
- E. All conduit fittings must be of the types specified, must be in accordance with UL 514 for normal application, and UL 886 for hazardous applications
- F. Acceptable conduit manufacturers include: Allied Tube and Conduit Corp., Wheatland Tube Company or Steel Duct Conduit Products.
- G. Acceptable conduit fitting manufacturers include: Appleton, Crouse-Hinds, OZ Gedney, Bridgeport, Regal or T&B.

2.3 FLEXIBLE CONDUIT AND FITTINGS:

- A. Liquid-Tite Flexible Conduit (LTFC) must be galvanized steel with a moisture and oil-proof plastic-coated jacket, listed and labeled by an acceptable agency. LTFC must be rated for the temperature environment in which it must be placed.
- B. LTFC must be in accordance with UL 360, with PVC outer jacket and integral ground conductor.
- C. Connectors must be malleable iron or steel with insulated throat, squeeze-type, with annular gripping rib. Particular attention must be given to maintaining ground bond and firm support through flexible connections. Liquid-tight connections must have insulated throats.
- D. Acceptable manufactures include: Anamet, Electro-Flex or Ultra-Tite.

2.4 BUSHINGS:

- A. Bushings for Rigid and IMC conduit must be malleable iron body with 105 degrees C and with 150 degrees C insulating ring. Insulator material must be molded in place and must be non-removable.
- B. Acceptable manufacturers include: Appleton, Catalog Series BU75I, OZ/Gedney Catalog Series IBC-125.
- C. Grounding bushings for RGSC and IMC must be Appleton Series GIB-75L or OZ/Gedney Series HBLG0722. Bushings must be hot-dipped galvanized or triple coated with an insulating ring molded into the bushing with a 150 degree C rating. Insulating ring must be non-removable.
- D. All bushings must be of the threaded type. Set screw or compression type bushings are not acceptable.

2.5 PULL AND JUNCTION BOXES:

- A. Pull and junction boxes in non-hazardous environment exterior of buildings, interior wet areas, and chemical environment where chemicals are stored or mixed with liquids and areas where subject to corrosive elements must be NEMA Type 4X, 316 stainless steel, with stainless steel hinged cover, stainless steel fasteners and stainless steel hardware. Minimum gauge must be 12 ga. for boxes with no dimension larger than 18 inches, and 10 ga. for all other boxes. The welds must be ground or polished to present a clean and neat finish.
- B. Pull and junction boxes in non-hazardous and dry environment must be NEMA Type 12 gasketed, 12-gauge, seam welded, galvanized, with a rust inhibitive primer, screwed type or hinged as required by job conditions. All screws must be stainless steel.
- C. Covers for non-hazardous boxes must be secured with round or flat head machine screws. Where required screws must be of the tamper-proof type.
- D. Where required by building construction, special junction or pull boxes must be provided in sizes and shapes determined from field measurements as required to make a neat and workmanlike installation. Special size and/or shaped boxes must be sized in accordance with the Chicago Electrical Code.
- E. Where required, boxes with metal barriers or separators for grouping of dissimilar conductors for voltage or system must be provided in compliance with the City of Chicago Electrical Code.
- F. Where required by the Drawings or job site conditions special finishes must be provided. These may be hot-dipped galvanized, PVC coated, etc. The Contractor must take extreme precaution when working in these areas to insure that the proper finishes are provided.
- G. Acceptable manufacturers include: Appleton Electric, Crouse-Hinds, Hoffman, Keystone, A.W. Circle, Chicago Switchboard or IEC.

2.6 OUTLET BOXES:

- A. Outlet boxes for indoor, dry work must be of the galvanized, pressed steel, knockout type. Boxes must be suitable for the structural conditions with the size determined by the number of conduits entering, and the devices or fixtures attached as required by the manufacturer. All outlet boxes must be in accordance with UL 514 for normal application and UL 886 for applications in hazardous locations.
- B. Outlet boxes must generally be 4 inches square or octagonal except as follows:
 - 1. In masonry walls, where conduit is installed concealed, each outlet box must be square cut masonry boxes.
 - 2. For concrete installation boxes must be suitable and constructed for

installation in concrete.

3. In exposed work, suitable boxes must be used for switches, light fixtures and receptacles. The NEMA type must be as described in this Specification.
 4. Outlet boxes for use outdoors or in wet/damp locations must be of the threaded hub, cast malleable iron type, with malleable iron cast covers. Covers must be gasketed unless of the threaded type.
 5. Where 1-1/4-inch conduit is required, the box size must be a minimum of 4-11/16 inches square.
- C. Proper covers on flush mounted boxes must be provided.
- D. Device Boxes
1. Surface mounted ceiling fixture and surface mounted wall bracket fixtures must have 4 inch sheet steel octagon box with round opening plaster ring.
 2. Wall switch and receptacle boxes in dry locations in brick walls, unfinished walls, woodwork, etc. must be a 4 inch square sheet box, with single gang or two (2) gang plate ring of the proper depth.
 3. The use of single gang boxes is prohibited.
 4. Extra deep boxes must be provided for such devices as dimmers, G.F.I.C.'s or where there are more than 4 wires spliced together with a wiring device(s) also contained in the same box.
- E. Plaster covers must have threaded ears and must be of suitable depth for the application.
- F. The Contractor must provide boxes with metal barriers, baffles or separators for grouping of dissimilar conductors or system separation.
- G. Acceptable manufacturers include: Appleton, Raco, Steel City or Crouse-Hinds.

2.7 EXPANSION JOINTS:

- A. The Contractor must provide expansion couplings with 8 inch movement and with bonding jumpers in all conduit crossing building and structure expansion joints.
- B. Expansion fittings must be Appleton, XJ with XJB jumpers, Crouse-Hinds or OZ Gedney.

2.8 WIRE AND CABLE - 600 VOLT:

- A. Wire and cable must be soft copper, properly refined and must have minimum conductivity of 98 percent. Aluminum conductors are not acceptable.
 1. Conductors for power and lighting must have 600-volt type insulation, must be not less than No. 12 AWG, must conform to the latest CEC and

- must bear acceptable agency label.
2. Wire for signal and control systems must be No. 14 AWG stranded unless otherwise indicated on the Drawings, or elsewhere in the Specifications.
 3. Factory wired equipment of a manufacturers' standard product line must be wired with the manufacturers' standard wire size and type provided that the wiring meets all applicable Code requirements. This does not apply to custom-built equipment as specified elsewhere in the Specifications.
- B. Wire and cable must be delivered to the job site in original packaging or on factory reels. All wire and cable must bear tagging or marking on the finish at regular intervals and consisting of manufacturers' name or code number, as well as the insulation type, voltage rating and acceptable agency listing.
- C. Wire and cable must be factory color-coded insulation and must be installed and connected as follows:
1. Color coding for voltage system of 250 volts and less must be
 - a. "A" Phase - Black
 - b. "B" Phase - Red
 - c. "C" Phase - Blue
 - d. Neutral- White
 - e. Ground - Green
 2. Color coding for voltage system of over 250 volts and less than 600 volts must be
 - a. "A" Phase - Brown
 - b. "B" Phase - Orange
 - c. "C" Phase - Yellow
 - d. Neutral- Gray
 - e. Ground - Green
 3. Green must be used for grounding only.
 4. Three-way and four-way switch travelers must be of a different color from colors stated above and they must be of the same color.
- D. The insulation must be applied tightly to the conductor and must be free stripping.
- E. Branch circuit wiring must be solid copper No. 12 AWG unless otherwise specified.
- F. Wire No. 10 AWG and larger must be stranded copper.
- G. Type THHN/THWN thermo-plastic insulated, 90 degrees C dry and 75 degrees C wet rated must be used for light, power and other wiring not specifically defined for all sizes. Type THHN thermo-plastic insulated 90 degrees C rated must be used for continuous row fluorescent fixture wiring.
- H. Type SF-2 silicone insulated glass braid jacket, 200 degrees C < 600-volt rated must be used for fixture wiring and or recessed incandescent fixture wiring and

must be No. 12 AWG minimum.

- I. Teflon insulated 200 degrees C rated must be used for use within 1 foot of heating pipes.
- J. Wire and cables 600-volt rated for installation in floor slabs, etc. and outdoor use in exposed conduit must be XHHW-2.
- K. If any of the cable types are modified by the Drawings, the Drawings must be followed.
- L. The 600-volt insulated wires and cables must be factory tested prior to shipment in accordance with the latest ICEA standards for the insulation specified.
- M. Reports on the results of shop tests for all wire and cables, descriptive literature for splices and terminations must be submitted and must be treated as a Shop Drawing submittal.
- N. Acceptable cable manufacturers for 600-volt rated cable include: American Insulated Wire Corp., Southwire, Cerro, Aetna,, Pirelli, and Draka Cableteq.

2.9 CONNECTORS:

- A. For connections to bus bars, use copper compression connectors. Connectors must be crimp type. All connectors must be copper. Copper compression connectors must be long barrel, tin plated, closed end compression type. The barrel for each cable lug must be sized for the exact cable size specified. Copper-Aluminum connectors are not acceptable.
- B. Mechanical or set screw types are not acceptable. The cables must be terminated with the die type compression tools. The compression connection must be UL rated. Use only those tools which must provide a UL rated connection for the manufacturers product used.
- C. Conductors No. 2 AWG and larger must terminate in two-hole solderless lugs.
- D. Conductors No. 10 AWG and No. 4 AWG, inclusive, must terminate in one (1)-hole lug.
- E. Multiple-hole lugs must have NEMA spacing
- F. Acceptable connector manufacturers include: Burndy Type YA, Anderson Type VHCL, Thomas & Betts Co., Series 54800 and 54900 or Panduit Series LCB.

2.10 TAPE:

- A. Tape must be UL approved, black or colors as required, self-fusing jacketing tape, resistant to weather, oils, water and chemicals. Tape must meet or exceed Scotch 33+.

- B. Acceptable manufacturers include: Amazon, Plymouth or 3-M.

2.11 WIRE-PULLING LUBRICANT:

- A. Where necessary to use a lubricant for pulling wires, the compound must be listed by Underwriters Laboratories. Cable pulling lubricant must be biodegradable, non-flammable, non-toxic compound with a solid residue of not more than 1.5 percent and a viscosity of at least 50,000 C.P.S.
- B. Cleaning agents or lubricants that have a deteriorous effect on conductors covering must not be used. Cable lubricant must contain no waxes, greases, silicones or polyalkylene glycol oils.
- C. Lubricant must be rated to match temperature conditions at the time of installation.
- D. Acceptable manufacturers include: Polywater J, High Performance Cable Lubricant, Ideal or Aqua-Jel 2.

2.12 SUPPORTS:

- A. Where conduits are supported with one-hole straps, spacers must be used to provide 1/4 inch minimum clearance between the conduits and supporting surfaces. All hangers, racks and straps must be hot-dipped galvanized steel for interior locations and stainless steel for exterior use.
- B. Perforated strap hangers are not acceptable. The use of tie wire is not acceptable.
- C. Hanger rods for trapeze-type hangers must be made from high tensile strength carbon steel not less than 3/8 inch diameter. The rods must have free-running, burr-free Unified National Coarse threads, with an electro-galvanized finish. Threaded rods used outdoors, in wet areas or in corrosive areas must be Grade 316 stainless steel.
- D. Conduit supports for trapeze hangers must be made from U-shaped steel components which are galvanized. Minimum material thickness must be 12 gauge. Supports must be hot-dipped galvanized for interior locations and stainless steel for exterior use. For exterior areas of corrosive nature, or where PVC Coated strut is used, PVC coated components must be provided. The use of painted components is prohibited. The miscellaneous components which are required to complete the support materials, except the threaded rod, must have the same finish as the U-shaped channel. Conduit supports must be as manufactured by Unistrut Corp., Kindorf, Powerstrut, B-line, or Minerallac.
- E. When conditions exceed the structural capabilities of U-shaped strut the Contractor must submit for review detailed Drawings indicating the proposed method of support. The submittal must contain complete details of fabrication, calculations, materials and finishes.

- F. All field cut ends must be treated in a manner which must insure the integrity of the support system immediately after cutting and before installation. The repair must be done with materials which are compatible with the factory finish. In no case must spray on galvanizing be acceptable for PVC or other special finishes.
- G. Supports must be held to concrete walls and ceilings by power-driven fasteners or electro-galvanized steel or stainless steel inserts as manufactured by Ramset, Unistrut Corp. or Hilti. The support type must be determined by the area conditions.
- H. For 4 inch and 4-11/16 inch boxes, 1/4 inch rods must be the minimum size. Larger size boxes must have hanger rods sized in accordance with the load, but must not be smaller than 1/4 inch.

2.13 SPLICES:

- A. No splicing will be permitted except in junction boxes, handholes and manholes. Splices and terminations in wire/cable larger than 8 AWG must be made with compression type connectors and lugs. The tools used must provide a UL certified connection. Indenter type compression fittings must not be acceptable. Lugs must be one (1) or two (2)-hole, color keyed. Lug bolting must include a flat washer, Belleville washer and a locknut.
- B. Outdoor splices of conductors must be made using hot or cold shrink products which, when properly installed, must produce a completely sealed covering over the connectors or lugs. The tube or jacket must be completely coated with mastic to insure a 100 percent seal to the conductor jacket. The splice, when completed, must be watertight. An acceptable manufacturer of this type product includes: Raychem Inc.
- C. All splices and pigtail connections in lighting and receptacles wiring No. 8 AWG and smaller must be made up with the pre-insulated spring connectors. Acceptable products include: Buchanan, Ideal Wingnut or Scotch Lock 2.

2.14 TERMINAL BOXES:

- A. Terminal boxes must be UL 508 Listed for Type 12 and Type 13 or Type 4X. They must conform to NEMA Standards for Types 12 and 13 or Type 4X and they must conform to JIC Standard EGP-1-1967.
- B. Each box must have provisions for the mounting of terminals, either on an internally mounted panel, or on metal strips which are provided by the manufacturer expressly for the purpose of attaching terminal strips. Wherever a panel or strips are provided they must be mounted on studs using lockwashers and nuts.
- C. Terminal boxes in non-hazardous environments which are exterior of buildings, in interior wet areas, in chemical environment where chemicals are stored or mixed with liquids and in corrosive areas must be NEMA Type 4X, 10-gauge minimum

for boxes with a dimension over 18 inches, 12 - gauge minimum for smaller boxes, 316 stainless steel with stainless steel hinged door, stainless steel fasteners and stainless steel hardware. Boxes must have provisions for external locks. The welds must be ground or polished to present a neat and clean appearance.

- D. Terminal boxes in non-hazardous and dry environment must be NEMA Type 12 gasketed, 12-gauge, seam welded, galvanized, with a rust inhibitive primer, hinged door, and must have provisions for external locking. The interior must be painted with white enamel. The exterior will be painted, color as required by the Commissioner.
- E. Acceptable manufacturers of enclosures include: Hoffman, A. W. Circle and IEC.
- F. The terminals must be 30 ampere, 600 volt rated, barriered, with pressure plate lugs for termination of control wiring. The terminals must be of modular design and must be held in place in such a manner as to prevent them from becoming loose when adding or removing terminals. Terminal blocks will be acceptable agency listed. Acceptable manufacturers include: Buchanan, Allen Bradley, Eaton/Cutler-Hammer/Westinghouse, G. E., and Square D.
- G. The terminal box assembly must be acceptable agency labeled. Identification of terminals and wiring must be per Specification 16195 - Identification.
- H. Acceptable suppliers of the assembled terminal box include: Panatrol, Chicago Switchboard, and Gus Berthold.

PART 3 EXECUTION

3.1 INSTALLATION - GENERAL:

- A. Interferences:
 - 1. Locations of conduits, fixtures and equipment must be adjusted and supported to accommodate the work in accordance with field conditions encountered, anticipating potential interferences.
 - 2. The Contractor must determine the exact route and location of each pipe, duct and electrical raceway prior to fabrication.
- B. Accessibility
 - 1. The work must be installed to permit removal (without damage to or removal of other parts) of parts requiring periodic replacement or maintenance and as defined by the Chicago Electrical Code.
 - 2. Conduits and equipment must be arranged to permit ready access to components and to clear the openings of swinging and overhead doors and of access panels.

3. The Contractor must provide necessary access panels in equipment as required for inspection of interior and for proper maintenance. Access panels must be as specified in other parts of the Contract Documents.

C. Exterior Wall Openings

1. Openings in exterior walls, particularly at or below grade, must be kept properly plugged and caulked at all times, except when being worked on, to prevent the possibility of flooding due to storms or other causes.
2. After completion of work, openings must be permanently sealed and caulked so as to provide leakproof and/or to maintain the fire-rated conditions of the structure penetrated.

3.2 CONDUIT INSTALLATION:

- A. All conduits must be installed as required. The conduit system must be installed complete with all accessories, fittings, boxes and supports in an approved and workmanlike manner to provide proper raceways for electrical conductors.
1. All conduit runs shown in the Drawings are shown diagrammatically for the purpose of outlining the general method of routing the conduits to avoid interferences.
 2. Conduit systems must be run concealed or exposed as shown or as dictated by job-site conditions.
 3. Exposed conduit runs must be installed true, plumb, parallel with or at right angles to adjacent building members, and must present an orderly, neat and workmanlike appearance.
 4. Field bends must be carefully made to prevent conduit damage or reduction in internal areas. All bends must be made with equipment specifically made for the purpose of bending conduit. The bending radius must not be less than six (6) times the nominal diameters of the conduit, with carefully matched bends on parallel runs to present a neat appearance. The number of crossovers must be kept to a minimum. Where larger radii are required to meet utility company requirements, etc., they must be provided. Hickey bends are not acceptable.
 5. For PVC conduit bends which exceed the radii available the Contractor must field bend the conduit using equipment and methods as directed by the conduit manufacturer. Extreme care must be taken not to deform the conduit.
 6. Conduits which are crushed or deformed in any way will not be installed.
 7. All conduits cut on the job must be carefully reamed inside and out to remove burrs. All field cut ends of conduits must be cut square and must be done with the proper tools. The use of tubing cutters is strictly prohibited. Conduits not properly cut will be replaced at no cost to the City.
 8. For PVC coated conduits all field bends must be made using tools specifically designed for the purpose of bending PVC coated conduits. If

the Contractor does not have these tools he must bend the PVC coated conduit using a bend radius one size larger than would normally be used for that size conduit.

9. All threads must be tapered. No running threads will be permitted. Threads on steel conduit must be given a coat of zinc duct in oil, or other approved compound. All joints must be properly tightened and must be watertight and insure a low resistance ground path in the conduit system.
10. For PVC coated conduits field cut threads must be done with tools as specified by the manufacturer of the PVC coated conduit. Extreme care must be taken to prevent damage to the PVC coating. The manufacturers' instructions must be followed for this operation. After the threads have been cut any damage to the coating must be immediately repaired using materials and methods as recommended by the manufacturer. The material thickness of any field repair must be equal to the factory finish which has been damaged. Repairs must be done immediately.
11. The Contractor must exercise extreme care in the assembly of PVC coated conduits. Metal jawed tools will not be used for this assembly. Conduits which are damaged as a result of using improper tools must be removed and replaced by the Contractor at no cost to the City.
12. All conduits must be carefully cleaned before and after installation and all inside surfaces must be free of imperfections likely to injure the cable. After installation of complete runs, all conduit must be snaked with an approved tube cleaner equipped with an approved cylindrical mandrel of a diameter not less than 85 percent of the nominal diameter of the conduit. Any conduits through which the mandrel will not pass must be removed and replaced. All conduits installed in interior areas 1 inch and smaller must be cleaned by pulling clean rags thru the conduits. After cleaning, the ends of the conduits must be protected as specified to prevent the entrance of water and other foreign matter. The use of such items as plastic bags, tape, paper, rags, etc. will not be used under any circumstances. Failure to properly protect conduit ends must result in the Contractor having to again mandrel the conduits immediately before installing the wires.
13. Lines of nylon, polyolefin or polypropelene, propelled by carbon dioxide, vacuum or compressed air, must be used to snake or pull wire and cable into conduits. Flat steel tapes or "sparks" type tapes can only be used in conduit runs of 50 feet or less. They will not be used in PVC or PVC coated conduits. Metal cables are expressly forbidden for pulling wire/cable. Non-metalic pull tapes can be used for all types of conduits.
14. Where conduits are connected to boxes or equipment enclosures, drilled holes or full size knockout openings must provide electrical continuity for grounding and must be assured by the use of bonding type locknuts. Where connections are at slightly eccentric openings, jumper type grounding bushings and wire jumpers must be installed. Should the openings become excessively eccentric, as determined by the

Commissioner, the box or equipment must be replaced at no cost to the City. The use of reducers will not be found acceptable under any circumstances.

15. Telephone conduit radius must not be less than 10 conduit diameters. The Contractor must verify with the company providing phone service as to their actual requirements for installation.
 16. Conduit systems must be installed, with fittings, couplings, connectors, double locknuts, bushings, etc., and made up tight to insure ground continuity throughout the system.
- B. As far as practicable, conduit must be pitched slightly to drain to the outlet boxes, or otherwise installed to avoid trapping of condensate. Where necessary to secure drainage, a breather-drain fitting must be installed in the boxes at low points. Each breather drain fitting must be manufactured by Crouse-Hinds Co., Appleton Electric Co., or O.Z. Gedney. Conduit must not run through columns or beams unless so specifically detailed, submitted and accepted by the Commissioner.
 - C. Each expansion joint, each straight uninterrupted run of surface mounted conduit, and vertical risers in excess of 100 feet must be provided with appropriate expansion fitting. The distance between fittings as installed must not exceed 200 linear feet.
 - D. The Contractor must furnish and install expansion couplings and bonding jumpers for metallic conduit system where conduits cross building expansion joints or where conduits transfer between structurally independent pipes, poles or supports.
 - E. Conduits crossing expansion joints must be provided with expansion fittings and flexible grounding bonds bypassing the fittings to insure ground continuity.
 - F. Conduits installed in dry locations requiring a flexible connection for adjustment or vibration isolation must be provided with an 18 inch minimum length of LTFC, as required by the area conditions.
 - G. Flexible conduit installed in wet locations, exterior locations, air return ceilings and at motors must be liquid-tight type.
 - H. Flexible conduit in ½ inch trade size may be used for connections with a maximum length of 18 inches for such devices as limit switches, for which the use of ¾ inch flexible conduit may not be practical due to the manufacturer providing only threaded hubs of the ½ inch size. In the case of such installations as electric door locks, where only ½ inch provisions are available, the Contractor can install ½ inch conduit from the device to a box located as close as possible.
 - I. The number of 90 degree bends must be limited to four or a total of 360 degrees including all off sets, sweeps, kicks, etc. This must be between any pull points.

- J. The Contractor must be aware that the conduits are sized for cables routed in exposed rigid steel conduits, as denoted on the Contract Drawings.
- K. Conduits entering motor control center conduit compartments, switchboards, switchgear, unit substations, etc. must be fitted with jumper type insulated grounding bushings, bonded together and to the structure of the enclosure by a continuous bonding wire.
- L. Conduit runs entering the building from outdoors are subject to moisture accumulation due to condensation. After the wires and cables are installed, the end of the conduit continuing into the warmer area must be packed with a non-setting sealing compound.
- M. All communication, telephone, data and computer conduits must have a minimum separation of 12 inches from any AC power and control conduits.
- N. The Contractor must orient outlet boxes for duplex receptacles or multiple gang switches for horizontal mounting.
- O. An outlet box must be provided at each location requiring one
 1. Outlet box locations as shown on the Drawings must be considered as approximate only, unless noted otherwise on the Drawings.
 2. Exact locations must be determined from the Drawings and/or from field instructions and coordination with the work of all other trades.
 3. Boxes must be installed true and plumb, so that the covers or plates must be level, and at uniform elevations for the type of wiring devices contained.
 4. Boxes for toggle switches and pilot lights at doorways must be located at the strike side of the door.
 5. Fixtures which weigh more than 5 pounds must be supported independently of the box.
- P. There must be no more openings made in any box than are required for the conduits entering same. Depths of boxes must be as to allow for easy wire pulling and proper installation of wiring devices.
- Q. All boxes must be supported independent of the conduit system. The boxes must be supported from the building structure. Conduits must not be supported from the boxes.
- R. Switches and receptacles must be ganged in a common box only when directed or indicated on the Drawings.
- S. All ceiling outlets must have adequate supports and must be equipped with adequate devices to carry and mount the light fixtures. They must not be supported from the ceiling structure.

- T. Conduit connections to NEMA 12 equipment must be made up with sealing locknuts. Conduit connections to NEMA 4 and NEMA 4X equipment must be made with Myer's type hubs. In no case must the Contractor terminate conduit to a NEMA 4 or 4X component by providing knock-outs and locknuts.

3.3 CONDUIT CONNECTIONS TO EQUIPMENT:

- A. The conduit system must terminate at the terminal box or at the conduit connection points of electric motors, devices and equipment. Terminations of conduit at such locations will permit direct wire connections to the motors, electrical devices or other equipment.
- B. Conduit connections must be made with rigid conduit if the equipment is fixed and not subject to adjustment, mechanical movement or vibration. A union type fitting must be provided when GRS or IMC is terminated at each enclosure or piece of equipment which contains a threaded termination for the conduit. This may be a threaded hub or through a fitting such as a Myers type hub. Conduit terminations using double locknuts do not require union type fitting.

3.4 PULL BOX INSTALLATION:

- A. Pull boxes must be installed where shown and where necessary to insure that the installed cable will not be damaged.
- B. The Contractor must add pull boxes where needed even though not shown on the Drawings.
- C. Junction boxes and pull boxes of the proper size and shape must be provided. Where suitable, standard outlet boxes must be used as junction boxes and pull boxes.
- D. Pull boxes and junction boxes must be supported from the building structure and must not be supported by the conduit. Pull/junction box supports must comply with the applicable requirements for supports as contained in these Specifications.

3.5 WIRING INSTALLATION:

- A. All cable and wire must be installed in conduit.
- B. No splices will be permitted between terminals, except at approved junction or terminal box points. Cable and wire runs must be looped through pull boxes without cutting and splicing where possible. Boxes must be sized to allow cable and wire installation without splices.
- C. All hardware, such as cable stanchions, racks, insulators, brackets, structural supports, wall inserts, cable and junction boxes, bolts, connectors, clamps, fittings and other accessories for the installation of wires and cables in buildings, manholes and outdoors must be furnished and installed complete to provide a

satisfactory operating installation.

- D. All wiring systems must be "pullable" and use of "BX" is prohibited.
- E. Branch Wiring
 - 1. Branch circuit wiring for lighting and other single phase applications must be sized for a voltage drop in accordance with the City of Chicago Electrical Code.
 - 2. The maximum voltage drop for each circuit must be 3 percent for power and 1 percent for lighting circuits.
 - 3. The Contractor must use multi-wire circuits utilizing separate neutrals and must follow the color coding established. The Contractor must size the wire in accordance with the following:
 - a. Under no circumstances must any switch break a neutral conductor.
 - b. Where farthest wiring device or light is no more than 75 feet from the panel, No. 12 AWG wire must be used between all wiring devices and for home runs.
 - c. Where the farthest wiring device or light is more than 75 feet from the panel, the Contractor will submit voltage drop calculation to the Commissioner, prior to sizing the wire. These calculations must show the wire size to be installed by the Contractor.
 - d. The minimum wire size must be No. 10 AWG between the panel and the first wiring device or fixture when located more than 75 feet from the panel, with a minimum No. 12 AWG wire being used between all other wiring devices or fixtures.
 - e. In office areas, each circuit must have its own neutral. Networking of circuits is not permissible in these areas. This does not apply to lighting circuits with the exception of fixtures which employ electronic ballasts.
- F. Feeders must be installed with the sizes as indicated on the Drawings and must be connected as required for the proper operation of the equipment they serve.
- G. Proper termination of conduits and wires at motors, control panels or other equipment items must be provided.
- H. In the event that conduit and wire sizes increase beyond the motor or equipment manufacturer's normal provisions for conduit and wire terminations, due to voltage-drop or other considerations in motor branch-circuit designs, the Contractor must provide auxiliary termination facilities, with adequate boxes, lugs, terminals, knock-outs, etc., as may be required.
- I. Equipment having safety devices such as limit switches, overload relays, high-low water cut-outs, high-low pressure switches, solenoids, pilot devices, flow switches, freeze protection thermostats, etc., must be so wired that they must always be in the control circuits of selector switches regardless of switch position.

- J. The only devices that may be shunted out in the manual position of a selector switch are remote pushbutton stations, clocks, timers and room thermostats and ductstats of the non-limit type.

3.6 SPLICES AND TERMINATIONS - 600-VOLT CABLE:

- A. All splices and terminations must be carefully taped and covered using material recommended by the cable manufacturers, to provide insulation equal to that of the conductors.
- B. All splices must be made in proper splice or junction boxes. Splices must not be made in power or control panels. Splices must not be pulled into any conduit. Splices must not be made in any fitting.
- C. Shielded Cable Grounding
 1. Shielded control cables must have the shields grounded at one (1) end. The shield must be insulated from ground, equal to that of the original cable instructions, at each splice.
 2. Coaxial cable shields must be insulated from ground throughout the length of the cable run. The shields must be grounded at, and only at, the coaxial connector terminating in the equipment on each end of the cable run.
- D. Splices
 1. Splices must be performed only by experienced and qualified cable splicers regularly engaged in this type of work.
 2. Shielded cables must have the ends of the shielding bonded together across splices to provide a continuous electrical path. Splice will be made with a terminal block and only when approved by the Commissioner.
 3. All cable runs must be given an insulation resistance test and continuity check at the completion of each splice throughout the length of the cable run.
 4. Where a cable is cut preparatory to splicing, the work must proceed without delay. When an unavoidable delay is encountered in completing a splice, the opened cable must be protected to prevent the entrance of moisture and foreign matter with a heat shrink cap.
 5. The Contractor must splice control cables with the splice kits and materials manufactured for the purpose of splicing control wiring and in accordance with manufacturer's instructions. A power cable splice kit or resin must not be used to make a control cable splice, and vice versa, under any conditions.

3.7 WIRING METHODS:

- A. All remote mounted devices such as control stations limit switches or pressure switches in a common circuit must have their wires brought back to the terminals on one (1) panel.
- B. When multi-conductor cables are used the number of conductors to be provided in each cable to be such that at least 1 spare conductor must be available for up to 5 conductors in use, 2 spare conductors must be available for 6 to 10 conductors in use, and 20 percent must be available for more than 10 conductors in use. The spare conductors are only required between major electrical equipment.
- C. Multi-conductor cable jacket must be pulled back and neatly trimmed to allow conductors to be separated, so they can be terminated to more than one (1) device. The cable must be supported in the panel where it enters the enclosure.
- D. Spare conductors must have the ends taped and they must be neatly coiled and tied and left in the bottom of the enclosure. They must be marked as spare conductors.

3.8 ELECTRICAL HARDWARE INSTALLATION:

- A. Locations
 - 1. Anchor bolts, sleeves, inserts, hangers and supports required for the work must be furnished and installed by the Contractor.
 - 2. Any expense resulting from improper location or installation must be paid for by the Contractor at no cost to the Commissioner.
 - 3. Where conduit and equipment is to be suspended from poured concrete construction, the Contractor must provide approved concrete inserts in the form work. Expansion shells may be used on precast concrete members but not closer than three (3) inches from the edge. The Contractor must verify the acceptable depth of anchors before beginning work on any pre or post tensioned members.
- B. Hangers
 - 1. The Contractor must provide adequate supports for all conduits and equipment, either suspended from the construction above, or by means of struts to the construction below. Where metal deck pan is used for the concrete floor above, anchors must only be placed in the rib. When the weight of the support system, including the completed electrical assembly, exceeds 100 pounds per hanger the Contractor will submit his design for review to the Commissioner.
 - 2. Hangers for support of conduit must be fabricated type, but not of the perforated iron type, and must conform to the requirements of the Contract Documents.

3. Hangers must be suitable for the weight of the material / equipment being supported. This must include any and all pulling loads, as well as the load of the conductors, which the support may be subject to.
4. Trapeze type hangers may be used where several conduits are to be installed at the same elevation.
5. The Contractor must provide straps, clamps, threaded rods, turnbuckles and anchors and all miscellaneous specialties for the attachment of hangers and supports to the structure.
6. Vertical conduits must be supported by heavy metal clamps or collars anchored in or to the construction at each floor.

C. Conduit Supports

1. Exposed conduits must be supported in an approved manner. Conduits must not be fastened to or come in contact with any mechanical system pipes, ducts or equipment of other trades, except as approved by the Commissioner. In all conduit work, acceptable hangers, racks or a combination thereof must be used as supports.
2. Conduit trapeze supports must be located at intervals not exceeding 5 feet. Single conduits must be supported as required by the Chicago Electrical Code.
3. Conduits must be securely fastened to each trapeze with U-bolts, straps or clamps.
4. Whenever possible conduits must be supported from the building structural steel. Beam clamps must be used to attach to the steel. When the conduit supports must be attached to the structural concrete proper anchors must be installed. Anchors must not be closer than 3 inches from the edge of the concrete. The use of anchors containing lead, plastic or wood is strictly prohibited.

D. Sleeves

1. The Contractor must provide sleeves in fire rated walls and floors, and when penetrating CMU walls.
2. Wall sleeves must be minimum 18-gauge galvanized sheet metal, as approved by Code, of sufficient length to finish flush with finished surfaces at both ends of the sleeves.
3. Sleeves must be not less than 1 inch larger than outside diameter of the conduit.
4. Floor sleeves must be galvanized steel pipe, as approved by Code, 3 inches above floor, and must be watertight.
5. Where conduit passes through floors or exterior walls, the Contractor must caulk sleeves with an appropriate system to insure the complete sealing of the opening to prevent passage of water, dirt or air and to insure the fire rating of the structure penetrated.

6. Sleeves must be set true to line plumb and position and must be so maintained during construction. Where sleeves are provided in poured concrete, the Contractor must inspect same during and after concrete is poured to insure proper position and to correct any deviation at the Contractors expense.

3.9 PAINTING:

A. Prime Coat

1. Shop fabricated and factory built equipment without a primer must be galvanized or protected by plating. Before delivery to the site, the equipment must be cleaned and given one (1) shop coat of zinc-chromate primer.
2. Any portions of the shop coat damaged in delivery or during construction must be recoated.
3. Nameplates, labels, tags, stainless steel or chromium-plated items such as motor shafts, levers, handles, trim strips, etc. must not be painted.

B. Finish Coat

1. Conduit and equipment must be left cleaned and primed, ready for finish painting provided under the Painting Section of the Specifications.
2. All equipment, panelboards, switchboards, etc. must be factory finished in baked enamel or lacquer, or as specified. Standard finishes must be as approved. All scratches must be neatly touched-up by the Contractor.
3. All metal work installed by this Contractor exposed to weather and not factory finished must be painted with one coat of rust inhibitive primer and two coats of oil based paint of color selected by the Commissioner.

3.10 PATCHING:

A. The Contractor must provide all cutting and patching of building materials required for the installation of the work herein specified:

1. No structural members must be cut without the approval of the Commissioner.
2. Roof deck is considered a structural member.
3. Approved cutting must be done with concrete saws or core drills.

B. Patching must be provided by mechanics of the particular trade involved and done in a neat and workmanlike manner.

C. Slots, chases, openings and recesses through floors, walls, ceilings and roofs must be cut by the Contractor. The Contractor must see that they are properly located.

- D. Slots, chases, openings and recesses in the structure must be cut by a qualified Contractor. The Contractor must patch and repair as required. Where patching or repair becomes excessive at a location, as determined by the Commissioner, the Contractor must use skilled craftsmen of the appropriate trade to make the repairs or patching.

3.11 CLEANING:

- A. Open ends of conduit and equipment must be properly capped or plugged to keep dirt and other foreign matter from entering.
- B. Each length of conduit must remain capped until the conduit connections are required.
- C. Trenches must be kept free from water. Conduits for ductbanks must not be laid when conditions of the trench are unsuitable for such work, or the weather must prevent quality work.
- D. When work is not in progress, open ends of conduit and fittings must be securely closed so that no water, earth or other substance must enter.
- E. When so directed by the Commissioner all material being removed must become the property of the Contractor, must be removed from the Airport and must be legally disposed of off City property by the Contractor.
- F. The Contractor must be responsible to keep the areas where work is occurring broom clean at all times.

PART 4 METHOD OF MEASUREMENT

4.1 MEASUREMENT

- A. Measurement for CONDUIT ATTACHED TO STRUCTURE, 1", PVC COATED GALVANIZED STEEL, REMOVE CONDUIT ATTACHED TO STRUCTURE, REMOVAL AND REPLACEMENT OF EXISTING COMMUNICATION WIRING, and for REMOVAL AND REPLACEMENT OF EXISTING DUCT BANK will be measured per foot installed completed, ready for operation, and accepted as satisfactory by the Commissioner.
- B. Measurement for JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE and for FLEXIBLE LIQUID TIGHT SS CONDUIT, 1" DIA, 6' LENGTH will be measured per each installed completed, ready for operation, and accepted as satisfactory by the Commissioner.

PART 5 BASIS OF PAYMENT

5.1 PAYMENT

Payment for CONDUIT ATTACHED TO STRUCTURE, 1", PVC COATED GALVANIZED STEEL, REMOVE CONDUIT ATTACHED TO STRUCTURE,

REMOVAL AND REPLACEMENT OF EXISTING COMMUNICATION WIRING, and for REMOVAL AND REPLACEMENT OF EXISTING DUCT BANK will be made at the contract unit price per foot installed by the Contractor and accepted by the Commissioner. This price includes full compensation for furnishing all materials and for all preparation and installation of these materials, and for all labor, equipment, tools, and all work necessary to complete this item.

- A. Payment for JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE and for FLEXIBLE LIQUID TIGHT SS CONDUIT, 1" DIA, 6' LENGTH will be made at the contract unit price per each installed by the Contractor and accepted by the Commissioner. This price includes full compensation for furnishing all materials and for all preparation and installation of these materials, and for all labor, equipment, tools, and all work necessary to complete this item.

- B. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--|-------|
| 16100-5.01 | AUTOMATED GATE SYSTEM – DISCONNECT, RELOCATE AND INSTALL | L SUM |
| 16100-5.02 | CONDUIT ATTACHED TO STRUCTURE, 1", PVC COATED GALVANIZED STEEL | FOOT |
| 16100-5.03 | JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE | EACH |
| 16100-5.04 | REMOVE CONDUIT ATTACHED TO STRUCTURE | FOOT |
| 16100-5.05 | FLEXIBLE LIQUID TIGHT SS CONDUIT, 1" DIA, 6' LENGTH | EACH |
| 16100-5.06 | REMOVAL AND REPLACEMENT OF EXISTING COMMUNICATION WIRING | FOOT |
| 16100-5.07 | REMOVAL AND REPLACEMENT OF EXISTING DUCT BANK | FOOT |
| 16100-5.08 | REMOVAL AND RELOCATION OF EXISTING STAINLESS STEEL ENCLOSURE AT PIER 103 | L SUM |
| 16100-5.09 | INSTALLATION OF NEW EXPRESS EXIT EQUIPMENT AND WIRING | L SUM |

END OF SECTION 16100

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BUILDING WIRE AND CABLE

SECTION 16123

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish and install all electrical work, materials and accessories indicated schematically by Drawings, scheduler and specified herein which include, but is not limited to, the following:
 - 1. Building wire and cable
 - 2. Wiring connectors and connections

1.02 RELATED WORK:

- A. As specified in the following divisions
 - 1. 16100 – Basic Materials and Methods

1.03 REFERENCES

- A. See Specification Section 16010 1.03

1.04 SUBMITTALS

- A. See Specification Section 16010 1.04
- B. The Contractor must submit Project data to the Commissioner prior to purchasing and installation. The data must include, but not be limited to, the following:
 - 1. Catalog cuts and major electrical equipment manufacturers' Drawings must include, but are not limited to, relays, meters, current and potential transformers, disconnect switches, fuses, contactors, lighting and more.
 - 2. Complete descriptive literature, performance and test data and rating data for all equipment must be provided.
 - 3. Instruction books, Operation and Maintenance manuals with spare parts must be provided.
- C. Submit certified copies for all factory tests

1.05 SYSTEM DESCRIPTION

- A. Product Requirements: Provide products as follows:
 - 1. Solid conductor for feeders and branch circuits 12 AWG and smaller.
 - 2. Stranded conductors for control circuits.
 - 3. Conductor not smaller than 12 AWG for power and lighting circuits.
 - 4. Conductor not smaller than 14 AWG for control circuits.
- B. Wiring Methods: Provide the following wiring methods:
 - 1. Exposed Dry Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway.
 - 2. Wet or Damp Interior Locations: Use only building wire, Type THHN/THWN insulation, in raceway.
 - 3. Exterior Locations: Use only building wire, Type XHHW-2 insulation in raceway.

1.06 DESIGN REQUIREMENTS

- A. Conductor sizes are based on copper.
- B. Aluminum conductors are not acceptable and will not be allowed.

1.07 QUALITY CONTROL

- A. See Specification Section 16010 1.05.

1.08 DELIVERY STORAGE AND HANDLING:

- A. See Specification Section 16010 1.06.

1.09 WARRANTIES AND GUARANTEES:

- A. See Specification Section 16010 1.07.

1.10 EXTRA MATERIALS AND SPARE PARTS:

- A. None required.

1.11 SPECIAL REQUIREMENTS:

- A. Field Measurements – Before proceeding with the fabrication of the Work, the Contractor must verify all dimensions and take such measurements as are required for proper fabrication and erection of the Work.
- B. Coordination – Coordinate Work of this section with related Work specified in the other divisions/sections of the Contract Documents.

PART 2 PRODUCTS

2.01 BUILDING WIRE

- A. Manufacturers include:
 - 1. American Insulated Wire Corp.
 - 2. Southwire
 - 3. Cerro
 - 4. Aetna
 - 5. Pirelli
 - 6. Draka Cableteq
- B. Product Description: Single conductor insulated wire.
- C. Conductor: Copper.
- D. Insulation: Thermoplastic material rated 90 degrees C dry and 75 degrees C wet must be used for light, power and other wiring not specifically designed for all sizes.

2.02 WIRING CONNECTORS

- A. Manufacturers include:
 - 1. Burndy Model YA.
 - 2. Anderson Model VHCL.
 - 3. Thomas & Betts Model Series 54800 & 54900.

4. Panduit Model Services LCB.
 - B. For connections to bus bars, use copper compression connectors. Connectors must be crimp type. All connectors must be copper. Copper compression connectors must be long barrel, tin plated, closed end compression type. The barrel for each cable lug must be sized for the exact cable size specified. Copper-Aluminum connectors are not acceptable.
 - C. Mechanical or set screw types are not acceptable. The cables must be terminated with the die type compression tools. The compression connection must be UL rated. Use only those tools which must provide a UL rated connection for the manufacturers product used.
 - D. Conductors No. 2 AWG and larger must terminate in two-hole solderless lugs.
 - E. Conductors No. 10 AWG and No. 4 AWG, inclusive, must terminate in one (1)-hole lug.
 - F. Multiple-hole lugs must have NEMA spacing
 - G. Acceptable connector manufacturers: Burndy Type YA, Anderson Type VHCL, Thomas & Betts Co., Series 54800 and 54900 or Panduit Series LCB.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify interior of building has been protected from weather.
- B. Verify mechanical work likely to damage wire and cable has been completed.
- C. Verify raceway installation is complete and supported.

3.02 PREPARATION

- A. Completely and thoroughly swab raceway before installing wire.

3.03 EXISTING WORK

- A. Remove exposed abandoned wire and cable , including abandoned wire and cable above accessible ceiling finishes. Patch surfaces where removed cables pass through building finishes.
- B. Disconnect abandoned circuits and remove circuit wire and cable. Remove abandoned boxes when wire and cable servicing boxes is abandoned and removed. Install blank cover for abandoned boxes not removed.
- C. Provide access to existing wiring connections remaining active and requiring access. Modify installation or install access panel.

- D. Extend existing circuits using materials and methods [compatible with existing electrical installations, or] as specified.
- E. Clean and repair existing wire and cable remaining or is wire and cable to be reinstalled.

3.04 INSTALLATION

- A. Route wire and cable to meet Project conditions.
- B. Neatly train and lace wiring inside boxes, equipment, and panelboards.
- C. Identify and color code wire and cable under provisions of Section 16195. Identify each conductor with its circuit number or other designation indicated.
- D. Special Techniques--Building Wire in Raceway:
 - 1. Pull conductors into raceway at same time.
 - 2. Install building wire 4 AWG and larger with pulling equipment.
- E. Special Techniques - Cable:
 - 1. Protect exposed cable from damage.
 - 2. Support cables above accessible ceiling, using spring metal clips or [metal] [plastic] cable ties to support cables from structure [or ceiling suspension system]. Do not rest cable on ceiling panels.
 - 3. Use suitable cable fittings and connectors.
- F. Special Techniques - Wiring Connections:
 - 1. Clean conductor surfaces before installing lugs and connectors.
 - 2. Make splices, taps, and terminations to carry full ampacity of conductors with no perceptible temperature rise.
 - 3. Tape uninsulated conductors and connectors with electrical tape to 150 percent of insulation rating of conductor.
 - 4. Install split bolt connectors for copper conductor splices and taps, 6 AWG and larger.
 - 5. Install solderless pressure connectors with insulating covers for copper conductor splices and taps, 8 AWG and smaller.
 - 6. Install insulated spring wire connectors with plastic caps for copper conductor splices and taps, 10 AWG and smaller.

7. Install solid conductor for feeders and branch circuits 10 AWG and smaller.
8. Install stranded conductors for branch circuits 10 AWG and smaller. However, when stranded conductors are used in lieu of solid, then install crimp on fork terminals for device terminations. Do not place bare stranded conductors directly under screws.

3.05 WIRE COLOR

A. General

1. For wire sizes 10 AWG and smaller, install wire colors in accordance with the following:
 - a. Black and red for single phase circuits at 120/240 volts.
 - b. Black, red, and blue for circuits at 120/208 volts single or three phase.
 - c. Orange, brown, and yellow for circuits at 277/480 volts single or three phase.
2. For wire sizes 8 AWG and larger, identify wire with colored tape at terminals, splices and boxes. Colors are as follows:
 - a. Black and red for single phase circuits at 120/240 volts.
 - b. Black, red, and blue for circuits at 120/208 volts single or three phase.
 - c. Orange, brown, and yellow for circuits at 277/480 volts single or three phase.

B. Neutral Conductors: White. When two or more neutrals are located in one conduit, individually identify each with proper circuit number.

C. Branch Circuit Conductors: Install three or four wire home runs with each phase uniquely color coded.

D. Feeder Circuit Conductors: Uniquely color code each phase.

E. Ground Conductors:

1. For 6 AWG and smaller: Green.
2. For 4 AWG and larger: Identify with green tape at both ends and visible points including junction boxes.

3.06 FIELD QUALITY CONTROL

A. Refer to Section 16010 – Basic Electrical Requirements for additional information.

B. Inspect and test in accordance with NETA ATS, except Section 4.

C. Perform inspections and tests listed in NETA ATS, Section 7.3.1.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Measurement for REMOVAL OF CABLE IN CONDUIT and for #10 AWG XHHW-2 WIRE will be measured per foot installed completed, ready for operation, and accepted as satisfactory by the Commissioner.

PART 5 METHOD OF PAYMENT

5.01 PAYMENT

- A. Payment for REMOVAL OF CABLE IN CONDUIT and for #10 AWG XHHW-2 WIRE will be made at the contract unit price per foot installed by the Contractor and accepted by the Commissioner. This price includes full compensation for furnishing all materials and for all preparation and installation of these materials, and for all labor, equipment, tools, and all work necessary to complete this item.

- B. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|-----------------------------|------|
| 16123-5.01 | REMOVAL OF CABLE IN CONDUIT | FOOT |
| 16123-5.02 | #10 AWG XHHW-2 WIRE | FOOT |
| 16123-5.03 | #8 AWG XHHW-2 WIRE | FOOT |

END OF SECTION 16123

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ELECTRICAL IDENTIFICATION

SECTION 16195

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish and install Electrical Identification as shown on the Drawings and as specified herein, including but not limited to the following:
 - 1. Conduit markers
 - 2. Wire / Cable Markers.
 - 3. Warning Tape.
 - 4. Danger Signs.
 - 5. Equipment Identification.
- C. For the purposes of this Specification the term "Cable" must apply to any type of conductor mentioned in the Contract Documents.

1.02 REFERENCES:

- A. See Specification Section 16010 1.03.

1.03 SUBMITTALS:

- A. The Contractor must submit data to the Commissioner prior to purchasing and installation. The data must include but not be limited to the following:
 - 1. Catalog cuts and major electrical equipment manufacturers' Drawings must include, but is not limited to, relays, meters, current and potential transformers, disconnect switches, fuses, contractors, lighting and more.
 - 2. Complete rating data for all equipment must be provided.
 - 3. Instruction books, operation and maintenance manuals with spare parts must be provided.
- B. Submit samples of Conduit markers, cable markers and Phenolic Tags.
- C. Submit a nameplate log which must clearly indicate the exact wording for each nameplate.
- D. Shop Drawings - See Specification Section 16010 10.4 B.

1.04 QUALITY CONTROL:

- A. See Specification Section 16010 1.05.

1.05 DELIVERY STORAGE AND HANDLING:

- A. See Specification Section 16010 1.06.

1.06 WARRANTIES AND GUARANTEES:

- A. See Specification Section 16010 1.07.

1.07 EXTRA MATERIALS AND SPARE PARTS:

- A. None required

1.08 SPECIAL REQUIREMENTS:

- A. Field Measurements - Before proceeding with the fabrication of the Work, the Contractor must verify all dimensions and take such measurements as are required for proper fabrication and erection of the Work.
- B. Coordination - Coordinate Work of this section with related Work specified in the other divisions/sections of the Contract Documents.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Acceptable manufacturers include (for each type marker):
 1. Alarm Supply Co., Inc.
 2. Brady, W.H. Co.
 3. Calpico Inc.
 4. Cole-Flex Corp.
 5. Direct Safety Co.
 6. George-Ingraham Corp.
 7. Griffolyn Company
 8. Ideal Industries, Inc.
 9. LEM Products, Inc.
 10. Markal Company
 11. National Band and Tag Co.
 12. Panduit Corp.
 13. Garfoplast.

2.02 INTERIOR CABLE MARKERS:

- A. Cable markers must be installed on both ends of all conductors. Self-adhesive, self-laminating, or heat shrink tubing or plastic bead type must be used. All markers must be mechanically printed. Cable markers must be rated for the environment in which they are placed. Acceptable manufacturers include: Brady, 3M, Panduit or Garfoplast.
- B. Circuit identification must be per the Contract Drawings. Should the Drawings not specify the circuit identification the following system must be used:
 - 1. For branch circuit wiring from receptacle/lighting panels the circuit identification must be the panel number and the circuit number.
 - 2. For circuiting from distribution panels the circuit identification must be the panel number and the circuit number.
 - 3. For power conductors from MCC's the identification must be the MCC designation, the item being supplied and the phase designation. Control wiring must be per the wiring diagrams.
- C. Conductor color coding must be done using tape as specified elsewhere in the Contract Documents. Provide color coding for all conductors which do not come with factory applied colors.

2.03 CONDUIT MARKERS:

- A. Conduit tags must be either stainless steel, grade 316 minimum, or brass. Tags must have the identification either stamped in or embossed in the material. Tags must be fastened to the conduit with either stainless steel wire or with nylon, self-locking cable ties. For interior, dry locations nylon tags which are mechanically printed may be used.
- B. Conduit tags for underground use must be as described above. Where it is not practical to attach the tag to the conduit, i.e., in handholes and manholes, the tags must be fastened to the structure at the point where the conduit enters the structure. The Contractor may use a single large plate type marker for this purpose. The marker must accurately depict the conduits and their identification. The identification must be attached using anchors as described in other parts of the Contract Documents.

2.04 WARNING/DANGER SIGNS:

- A. Provide manufacturer's standard "DANGER" signs of rigid Polyethylene; of standard, red, black and white graphics; 14" x 10" size except where 10" x 7" is the largest size which can be applied where needed, and except where larger size is needed for adequate vision, with recognized standard explanation wording, e.g., HIGH VOLTAGE, KEEP AWAY, BURIED CABLE, DO NOT TOUCH SWITCH, etc.

- B. Provide "Warning" signs, as required, of rigid Polyethylene, colors as required by OSHA.
- C. Signs must be attached with Stainless Steel screws. Warning/Danger signs must not be of the adhesive type for attachment to doors or walls.

2.05 EQUIPMENT IDENTIFICATION:

- A. After finish painting is completed, the Contractor must provide white with black core laminated phenolic nameplates with 1/4 inch minimum lettering etched through the outer covering. Inscription must be made with all upper case letters and must be the same inscriptions as shown on the Drawings or as directed by the Commissioner.
 - 1. All major electrical equipment must be so identified, including motor starters, disconnect switches, panels, switches, etc.
 - 2. Disconnect switches serving feeders and overcurrent protective devices mounted in a switchboard must be so identified.
 - 3. Embossed self-adhering plastic tape labels will not be accepted.
 - 4. Use stainless steel screws, except where contact-type permanent adhesive may be required when screws cannot or should not penetrate substrate.
 - 5. For Fire Alarm Systems provide white with red core laminated phenolic name plates.
 - 6. For Emergency Power equipment provide red with white letters.
 - 7. The Contractor must take care when attaching the identification so that the NEMA rating of the equipment is not violated.

2.06 LETTERING AND GRAPHICS:

- A. Coordinate names, abbreviations and other designations used in electrical identification work, with corresponding designations shown, specified or scheduled. Provide numbers, lettering and wording as indicated or, if not otherwise indicated, as recommended by manufacturer or as required for proper identification and operation/maintenance of electrical systems and equipment. Comply with ANSI A13.1 pertaining to minimum sizes for letters and numbers.
- B. Identification markings on signs and markers must not be done with pens, pencils, crayons, magic markers, paint, dymo-labels, etc.
- C. Identification on small boxes, i.e., 4 inch square and 4-11/16 inch boxes may be done with a permanent marker in neat and legible block printing. Black markers must be used for this purpose. The Contractor must identify the circuits contained and the panel(s) of origin.

2.07 TERMINAL IDENTIFICATION:

- A. Terminal strips must be identified by using markers supplied by the terminal manufacturer. Whenever possible they must be mechanically printed. When this is not possible the strips must be marked in neat and legible block lettering using a permanent marking system acceptable to the terminal strip manufacturer. The terminal marking must be the wire number attached to that terminal.

2.08 PULL BOX IDENTIFICATION:

- A. Identification markers for pull boxes, junction boxes, etc. must be of the polyester film type, self adhesive and pre-printed. The marker must contain the highest voltage level contained within that box. The marker must be yellow with black letters and the lettering must be visible from the floor.
- B. The box must have a phenolic nameplate, white with black letters, affixed to the box with stainless steel screws with the box identification. Each box must have an identifying designation that must be shown on the Drawings.

2.09 CABLE TIES:

- A. Cable ties must be fungus-inert, self-extinguishing, one-piece, self-locking nylon cable ties, 0.18 inch minimum width, 50 lb. minimum tensile strength, and suitable for a temperature range from minus 50 degrees F to 350 degrees F. Provide ties in specified colors when used for color coding.
- B. Acceptable manufacturers include: Thomas & Betts Co., Brady Co. and Panduit.

2.10 WIRE IDENTIFICATION IN EQUIPMENT:

- A. The wire identification for manufactured equipment must match the wire identification shown on the manufacturers wiring diagrams. All wires must be identified. The manufacturer must use product as specified in the Contract Documents.
- B. For custom built equipment the wire identification must match the wire identification shown on the assemblers approved Shop Drawings. All wires must be identified.
- C. In no case must a wire number change designations as a result of termination at a terminal.
- D. Where multi-conductor cables are used the cable must be identified as well as each conductor contained within that cable.

PART 3 EXECUTION

3.01 APPLICATION AND INSTALLATION:

- A. Install electrical identification products as indicated, in accordance with manufacturer's written instructions, requirements of Chicago Electrical Code and the Contract Documents.
 - 1. Where identification is to be applied to surfaces which require a specific finish, install identification after completion of the finish. The Contractor must take all precautions to avoid damaging the finish. Any damage must be repaired in a manner acceptable to the Commissioner.
 - 2. Comply with governing regulations and requests of governing authorities for identification of electrical work.
- B. The Contractor must provide a typewritten directory of circuits in lighting and power panels. The Contractor must clearly indicate the purpose of each circuit, i.e., lighting, receptacles, water cooler, etc. and must indicate the location of the supplied equipment. Modified and updated circuit directories shall be provided for all existing panels with modified circuits.

3.02 CONDUIT, WIRE, CABLE AND BUS IDENTIFICATION:

- A. When not shown on the Contract Drawings the Contractor must indicate on his/her field marked set of Drawings, as required by the Contract Documents, the conduit identification.
- B. Each cable must be labeled at all terminals and at all accessible points in equipment, panelboards, manholes, handholes and pull boxes, etc. Labels must be as specified herein.
- C. All wires and feeder cables must be labeled in all junction boxes pull boxes, control panels, motor control centers, panelboards, switchboards, etc. All conductors must be tagged in cabinets at the time wires are pulled in and tested and markers must not be removed for any reason.
- D. Markers approved by the Commissioner must be attached to all cables where entering or leaving from conduit runs. The cable designation and circuit use must appear on the tag.
- E. Apply colored, pressure sensitive tape in half-lapped turns for a distance of 2 inches from the cable marker and in all boxes. Provide color coding at all splices and taps to each side of the splice or tap. Apply the last two laps of tape with no tension to prevent possible unwinding. Do not obliterate cable tag with the tape.
- F. All conduit runs must be identified by means of non-corrosive metal tag with stamped identification thereon, as shown on Contractor's installation Drawings and attached at all conduit terminations, including junction boxes. For interior work a nylon tag, mechanically printed may be used in lieu of metal.

- G. Conduit identification tags must be fastened to the conduit near the point of termination where conduits enter motor control centers, switchboards, switchgear, terminal cabinets, outlet boxes, junction boxes, pull boxes and other items. The tag must be held in place by a nylon, self-locking cable tie.
- H. Conduits in miscellaneous pull boxes in runs where the system identity cannot be clearly seen must have identifying tags indicating the name of the system. Such tags must be installed as described above. Miscellaneous systems must include, but not be limited to, telephones, lighting, etc.
- I. Conduits terminating at lighting fixtures, wall switches, telephones, terminal cabinets, lighting panelboards, receptacle outlets and similar items need not be tagged where their system identification is obvious, except as noted above for clarity.
- J. Exterior installed conduits, except branch lighting circuit conduits, must be tagged at the ends and in intermediate boxes, chambers, manholes, handholes and other enclosures in accordance with the same inscriptions as shown on the Drawings.
- K. Tags must be fastened as specified except that where this method is not practicable they must be fastened to the adjacent masonry by means of expansion bolts.
- L. Phase identification letters must be 1 inch high in readily visible locations, and must be stamped into the main bus bars of switchboards and panelboards.
- M. For conduits in duct banks and embedded in structural slabs, etc. the conduit identification must be installed at the point where the conduit exits the slab.

3.03 OPERATIONAL IDENTIFICATION AND WARNING:

- A. Wherever reasonably required to ensure safe and efficient operation and maintenance of electrical systems, and electrically connected mechanical systems and general systems and equipment, including prevention of misuse of electrical facilities by unauthorized personnel, install self-adhesive plastic signs or similar equivalent identification, instruction or warnings on switches, outlets and other controls, devices and covers of electrical enclosures. Where detailed instructions or explanations are needed, provide plasticized tags with clearly written messages adequate for intended purposes.
- B. In addition to installation of danger signs required by governing regulations and authorities, install appropriate danger signs at locations indicated, either by the Contract Documents or as directed by the Commissioner, and at locations subsequently identified by installer of electrical work as constituting similar dangers for persons in or about the facility.
 - 1. Install danger signs wherever it is possible, under any circumstances, for persons to come into contact with electrical power of voltages higher than 110-120 volts.

2. Install danger signs on switches and similar controls, regardless of whether concealed or locked up, where untimely or inadvertent operation (by anyone) could result in significant danger to persons, damage to or loss of property.

3.04 EQUIPMENT/SYSTEM IDENTIFICATION:

- A. Install signs at locations indicated or, where not otherwise indicated, at the location which provides the best convenience of viewing without interference with operation and maintenance of equipment. Secure to substrate with fasteners, except use a permanent adhesive where fasteners should not or cannot penetrate substrate.
- B. Provide Identification on all pull, junction, splice or terminal boxes. Identification must consist of the voltage contained within the enclosure and the enclosure identification.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Electrical identification will not be measured for payment.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Electrical identification will not be paid for separately, but will be considered incidental to the contract.

END OF SECTION 16195

GROUNDING

SECTION 16452

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Work under this section is subject to the requirements of the Contract Documents. This section applies to building and general electrical grounding.
- B. Furnish and install all electrical Grounding work, materials and accessories as shown on the Drawings and as specified herein, including but not limited to the following:
 - 1. Raceways
 - 2. Enclosures
 - 3. Equipment
 - 4. Lighting standards
 - 5. Signs
- C. Requirements of this section apply to electrical grounding and bonding work specified elsewhere in these Specifications.

1.02 RELATED WORK:

- A. As specified in the following divisions:
 - 1. 16010 – Basic Electrical Requirements
 - 2. 16100 – Basic Materials and Methods
 - 3. 16123 – Building Wire and Cable
 - 4. 16950 – Testing

1.03 REFERENCES:

- A. See Specification Section 16010 1.03.

1.04 SUBMITTALS:

- A. See Specification Section 16010 1.04 B.

1.05 QUALITY CONTROL:

- A. See Specification Section 16010 1.05.

1.06 DELIVERY STORAGE AND HANDLING:

- A. See Specification Section 16010 1.06.

1.07 WARRANTIES AND GUARANTEES:

- A. See Specification Section 16010 1.07

1.08 EXTRA MATERIALS AND SPARE PARTS:

- A. None required.

1.09 SPECIAL REQUIREMENTS:

- A. Field Measurements - Before proceeding with the fabrication of the Work, the Contractor must verify all dimensions and take such measurements as are required for proper fabrication and erection of the Work.
- B. Coordination - Coordinate Work of this Section with related Work specified in the other divisions/sections of the Contract Documents.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS:

- A. Products of one of the following Manufacturers will be acceptable (for each type of product):
 1. Adalet-PLM Div.; Scott Fetzer Co.
 2. Burndy Corporation
 3. Cadweld Div.; Erico Products Inc.
 4. Crouse-Hinds Div.; Cooper Industries
 5. Eagle Electric Mfg.. Co.
 6. Ideal Industries, Inc.
 7. Joslyn Corporation
 8. Okonite Company
 9. OZ Gedney Div. General Signal Corp.
 10. Thomas and Betts Corp.
 11. Harger

2.02 MECHANICAL CONNECTORS

- A. Manufacturers:

1. Erico Inc.; Electrical Products Group
2. ILSCO Corporation
3. Crouse-Hinds Division; Cooper Industries
4. Thomas & Betts, Electrical
5. Burndy Corporation
6. O-Z Gedney Co.
7. Apache Grounding
8. Adalet-PLM Div.
9. Eagle Electric Manufacturing, Co.
10. Ideal Industries, Inc.
11. Joslyn Corporation
12. Okonite Co.
13. Harger

B. Description: Bronze connectors, suitable for grounding and bonding applications, in configurations required for particular installation.

2.03 EXOTHERMIC CONNECTORS

A. Manufacturers:

1. Erico Inc.; Electrical Products Group
2. ILSCO Corporation
3. Crouse-Hinds Division; Cooper Industries
4. Thomas & Betts, Electrical
5. Burndy Corporation
6. O-Z Gedney Co.
7. Apache Grounding
8. Adalet-PLM Div.
9. Eagle Electric Manufacturing, Co.
10. Ideal Industries, Inc.
11. Joslyn Corporation
12. Okonite Co.
13. Harger

B. Product Description: Exothermic materials, accessories, and tools for preparing and making permanent field connections between grounding system components.

2.04 GROUNDING AND BONDING:

- A. Except as otherwise indicated, provide electrical grounding and bonding systems indicated, with assembly of materials, including, but not limited to, cables/wires, connectors, solderless lug terminals, grounding electrodes and plate electrodes, bonding jumper braid, surge arresters and additional accessories needed for a complete installation. Where more than one (1) type component product meets indicated requirements, selection is installer's option.
- B. Unless otherwise indicated, provide electrical grounding conductors for grounding system connections per Section 16100 - Basic Materials and Methods and which are sized according to the Chicago Electrical Code. In no case must bare conductors be installed in the earth.
- C. Provide electrical bonding plates, connectors, terminals, lugs and clamps as recommended by bonding plate, connector, terminal and clamp manufacturers for indicated applications.

PART 3 EXECUTION

3.01 EXAMINATION:

- A. Examine areas and conditions under which electrical grounding and bonding connections are to be made and notify the Commissioner in writing of conditions detrimental to proper completion of Work. Do not proceed with the Work until unsatisfactory conditions have been corrected in a manner acceptable to the Commissioner.

3.02 INSTALLATION OF ELECTRICAL GROUNDING AND BONDING SYSTEMS:

- A. Install electrical grounding and bonding systems as indicated and specified and in accordance with manufacturer's instructions and applicable portions of Chicago Electrical Code, NECA's "Standard of Installation" and in accordance with recognized industry practices to ensure that products comply with requirements. EXCEPTION: No ground connection to waterlines.
- B. Coordinate with other electrical work as necessary to interface installation of electrical grounding and bonding system work with other work.
- C. Terminate feeder and branch circuit insulated equipment grounding conductors to grounding lug, bus or bushing.
- D. Tighten grounding and bonding connectors and terminals, including screws and bolts, in accordance with manufacturer's published torque tightening values for connectors and bolts. Where manufacturer's torquing requirements are not indicated, tighten connections to comply with tightening torque values specified in UL 486A to assure permanent and effective grounding.
- E. Route grounding connections and conductors to ground and protective devices in

shortest and straightest paths as possible to minimize transient voltage rises.

- F. Install clamp-on connectors on clean metal contact surfaces, to ensure electrical conductivity and circuit integrity.
- G. All conduits must contain a ground wire.

3.03 FIELD QUALITY CONTROL:

- A. Upon completion of installation of electrical grounding and bonding systems, test ground resistance with ground resistance testing. These tests must be witnessed by the Commissioner. Where tests show resistance-to-ground is over the required ohms, take appropriate action to reduce resistance to the required ohms, or less, by driving additional ground rods; then retest to demonstrate compliance.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Grounding will not be measured separately for payment.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Grounding will not be paid for separately, but will be considered incidental to the other electrical pay items specified elsewhere in the contract documents.

END OF SECTION 16452

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ROADWAY/PARKING LOT/TUNNEL LIGHTING
SECTION 16520A

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Work under this Section is subject to the requirements of the Contract Documents.
- B. Furnish and install Lighting as shown on the Drawings

1.02 RELATED WORK:

| IDOT ARTICLE | TITLE |
|--------------|--------------------|
| 821 | ROADWAY LUMINAIRES |

1.03 SUBMITTALS:

- A. The Contractor must submit data to the Commissioner prior to purchasing and installation. This data must include, but not be limited to, the following:
 - 1. Catalogue cuts of all light fixtures.
 - 2. Photometric data on each light fixture type.

1.04 QUALITY CONTROL:

- A. See Specification Section 16010 1.05.

1.05 DELIVERY STORAGE AND HANDLING:

- A. See Specification Section 16010 1.06

1.06 WARRANTIES AND GUARANTEES:

- A. See Specification Section 16010 1.07.

1.07 EXTRA MATERIALS AND SPARE PARTS:

- A. See Specification Section 16010 1.08.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS:

- A. Subject to compliance with the requirements, manufacturers offering products which may be incorporated into the work are noted on drawings.

PART 3 EXECUTION (NOT MODIFIED)

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. This work will be measure for payment per each luminaire.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Payment for luminaires will be made at the contract unit price per each luminaire installed by the Contractor and accepted by the Commissioner. This price includes full compensation for furnishing all materials and for all preparation and installation of these materials, and for all labor, equipment, tools, and all work necessary to complete this item.

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|-----------------------------|------|
| 16520A-5.01 | UNDERPASS LED LIGHT FIXTURE | EACH |
| 16520A-5.02 | SIGNAGE LED LIGHT FIXTURE | EACH |

END OF SECTION 16520A

TESTING
SECTION 16950

PART 1 GENERAL

1.01 SECTION INCLUDES:

- A. Work under this section is subject to the requirements of the Contract Documents.
- B. Furnish and provide all work, materials, instruments and accessories necessary to provide, but is not limited to, the following:
 - 1. Testing of electrical systems.

1.02 RELATED WORK:

- A. As specified in the following divisions:
 - 1. 16010 – Basic Electrical Requirements
 - 2. 16100 – Basic Materials and Methods
 - 3. 16123 – Building Wire and Cable
 - 4. 16452 – Grounding

1.03 REFERENCES:

- A. See Specification Section 16010 1.03.

1.04 SUBMITTALS:

- A. The Contractor must submit data to the Commissioner prior to purchasing and installation. The data must include but not be limited to the following:
 - 1. All test reports as witnessed and signed by the Commissioner.
 - 2. All certified test reports as specified elsewhere.

1.05 QUALITY CONTROL:

- A. See Specification Section 16010 1.05.

1.06 DELIVERY STORAGE AND HANDLING:

- A. See Specification Section 16010 1.06.

1.07 WARRANTIES AND GUARANTEES:

- A. None required.

1.08 EXTRA MATERIALS AND SPARE PARTS:

- A. None required.

1.09 SPECIAL REQUIREMENTS:

- A. None required.

PART 2 PRODUCTS

2.01 TESTING:

- A. The following tests are required, but must not be limited to, this list. All tests will be witnessed by the Commissioner.
 - 1. Proper phase rotation.
 - 2. Short circuits.
 - 3. Improper grounds.
 - 4. Power and control electrical circuits for circuit continuity and functional tests.
 - 5. Acceptance Testing Specification for Electrical Power Distribution Equipment and Systems must be in accordance with NETA ATS.
- B. The Contractor must furnish all meters, instruments, cable/wire connections, etc. for all tests.
- C. After wires and cables are in place and connected to devices and equipment, the system must be tested for short circuits, improper grounds and other faults. If a fault condition occurs the trouble must be corrected and the system must be retested.
- D. Phase conductors, if shorted, grounded or at fault must be replaced and retested.
- E. A voltage test must be made at each lighting panel, distribution panel, receptacle panel and at the last power consuming device in the circuit to check the voltage drop. This test must be done under the full load of the circuit being tested. For receptacles there must be a load of 1200 watts applied to the last outlet and the voltage drop must be tested at this point. If a voltage drop exceeds 1 percent for lighting and 3 percent for power the Contractor must correct the condition by locating the high resistance splice or connection and must then retest the system.
- F. Any wiring device, electrical apparatus or lighting fixture grounded or shorted on any "live" part must be removed and the trouble rectified by replacing the defective parts or materials.
- G. Upon completion of the electrical work the Contractor must place the entire installation in operation, test for proper function and show systems and equipment to be free from all defects.

- H. The Commissioner will conduct from time to time such tests as may be required to any part of the equipment to determine if it is installed in accordance with the Contract Documents. The Contractor will extend to the Commissioner all facilities to this end and must furnish skilled or unskilled help required. All tests will be witnessed by the Commissioner and three copies of the verified test report must be given to the Commissioner promptly upon completion of the test.
- I. The Contractor must provide assistance to the various equipment manufacturer's field personnel as required in the testing and adjusting of the electrical power and control equipment. Cooperation of the Contractor must be such that a minimum of time is required for equipment testing.
- J. A log must be maintained by the Contractor of all tests. This log must be certified before completion of the job, both as to test values and date of test. All major equipment such as switchgear, motor control centers and motors must be initially energized in the presence of the Commissioner.
- K. Any faults in the work performed by the Contractor or in materials or equipment furnished by the Contractor must be corrected or replaced promptly by the Contractor at his/her own expense. Any faults in materials or equipment furnished by the Contractor which are the result of careless, incompetent or improper handling or installation by the Contractor must be corrected or replaced, as directed by the Commissioner, at the Contractor's expense.
- L. All tests must be made by the Contractor at the Contractor's expense and certification of the tests will be submitted to the Commissioner. If any failures occur during the tests the Contractor must replace the faulty equipment of materials and retest.

2.02 WIRE AND CABLE TESTING (600 VOLTS):

- A. The 600 volt insulated wire and cables must be factory tested prior to shipping in accordance with IECA Standards for the insulation specified.
- B. The following 600 volt wires and cables must be tested after installation but before final connections are made up:
 - 1. All conductors #6 and larger.
- C. For the above listed wires and cables the Contractor must megger test them at 1000 volts. The minimum acceptable reading must be 250 Megohms. The megger test must not be done until any and all splicing is completed.

PART 3 EXECUTION

3.01 TEST EQUIPMENT:

- A. All test equipment must be in good operating condition and must have been calibrated within 6 months of date of usage. At the time of testing the Contractor must present a copy of the certification of calibration to the Commissioner.

- B. All test must be done with the proper equipment for the type of test being performed. When necessary the Contractor must obtain the services of a testing company to perform those tests which the Contractor either does not have trained personnel or proper testing equipment.
- C. All megger tests must be recorded on Form 16950. When an outside testing company is used the test report form will be submitted to the Commissioner for review and acceptance.
- D. All test reports must be signed and dated.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Testing will not be measured separately for payment but will be considered incidental to the contract.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. No payment will be made for testing. Testing will be considered incidental to the electrical systems being tested.

END OF SECTION 16950

FORM 16950

SINGLE AND MULTIPLE CONDUCTOR POWER CABLE MEGGER TEST, 600V AND LESS WIRING-FEEDER CIRCUITS

Testing must be performed before connecting the cables to the terminals at either end. Continuity of each conductor must be checked at this time.

Each conductor must be checked with a 1000 volt megger to ground, with all other conductors in the cable and shield, grounded. The minimum acceptable resistance will be 250 megohms for each conductor to ground.

| | | | |
|-----------------------|-------|----------------------|-------|
| Date: | _____ | Project Name: | _____ |
| Feeder Number: | _____ | Location: | _____ |
| From: | _____ | To: | _____ |
| Cable Size: | _____ | Cable Length: | _____ |
| Number of Conductors: | _____ | Insulation Type: | _____ |
| Manufacturer: | _____ | Line Voltage: | _____ |
| Temperature: | _____ | Humidity: | _____ |
| Megger Type: | _____ | Serial Number: | _____ |
| Test Voltage: | _____ | Date of Calibration: | _____ |

Remarks: _____

If Applicable, All Shields Must Be Properly Grounded.

| Cable No. | MEGOHMS Phase A | MEGOHMS Phase B | MEGOHMS Phase C | MEGOHMS Neutral |
|-----------|-----------------|-----------------|-----------------|-----------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Test Performed By: _____
 Signature/Name/Company Date

Test Witnessed By: _____
 Signature/Name/Company Date

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ELECTRICAL MANHOLES AND HANDHOLES

SECTION L-115

PART 1 DESCRIPTION

1.01 GENERAL

- A. This item consists of the furnishing of all labor, equipment, and material, and of performing all operations in connection with furnishing and installation of new electrical manholes and handholes and with the adjustment of existing electrical manholes and handholes. The work under this section is subject to the requirements of the Contract documents.

PART 2 EQUIPMENT AND MATERIALS

2.01 GENERAL

- A. All equipment and materials covered by other referenced specifications will be subject to acceptance through manufacturer's certification of compliance with the applicable specifications, when so requested by the Commissioner.

2.02 REINFORCING STEEL

- A. Reinforcing steel is to comply with Section 02714 of these specifications.
- B. All existing reinforcing steel exposed during the adjustment of electrical manholes is to be reincorporated into the adjusted structure. Care must be taken not to damage the existing reinforcing steel during concrete removal. The exposed reinforcing steel is to be cleaned of all concrete. Any reinforcing steel rusted, damaged or deemed not retainable by the Commissioner is to be replaced with bars of the same size and length meeting the requirements of ASTM A615 Grade 60.

2.03 CONCRETE

- A. Cast-in-place concrete required for the construction of manholes and handholes, and for the adjustment of manholes and handholes is to comply with all the requirements of Section 02714.
- B. Proposed precast concrete mix designs including all ingredients and certified concrete strength test results must be submitted by the Contractor/Precaster prior to manufacturing, for review by the Commissioner.

2.04 GROUND RODS

- A. Ground rods are to be $\frac{3}{4}$ inch diameter type 304 stainless steel, 10-feet long minimum.

2.05 FRAMES AND COVER

- A. New frames and covers are to be installed on all electrical manholes and handholes, except where the Drawings indicate otherwise.
- B. The castings must conform to one of the following requirements:
 - 1. Gray iron castings: ASTM A48, Class 30B and 35B
 - 2. Malleable iron castings: ASTM A47
 - 3. Steel castings: ASTM A27
 - 4. Structural steel for grates and frames: ASTM A283, Grade D
 - 5. Ductile iron castings are to meet the requirements of ASTM A536
 - 6. Austempered ductile iron castings: ASTM A897
- C. All castings or structural steel units are to conform to the dimensions and requirements shown on the Drawings and are to be designed to support the loading specified.
- D. Each frame and cover unit is to be provided with stainless steel locking bolts to prevent it from being dislodged but which will allow easy removal for access to the structure.
- E. Each cover must be provided with a latch device that is integral to the cover casting. The latch must be of a spring catch or quarter turn design that is operable with a tool supplied with the casting. Tool quantity to be supplied with the order as indicated on the drawings. The latching device must secure the cover in a closed position when the hold down stainless steel locking bolts (item 'D' above) are being removed or reinstalled. The cover must be secured by both bolts and latches.
- F. The frames of all electrical and communications manholes and handholes are to be grounded as shown on the Drawings.
- G. Acceptable manufactures include:
 - 1. Neenah Foundry Company
 - 2. East Jordan Iron Works, Inc.
 - 3. Campbell Foundry

2.06 NON-METALLIC CABLE SUPPORT RACKS

- A. Manhole and handhole cable racks must be heavy duty, molded, acceptable agency listed, standard yellow fiberglass reinforced nylon with adjustable arms. Length of rack arm must be 14 inches for CED manholes and 6 inches for handholes, respectively. Install cable racks as shown on the Drawings. Secure all cable to the rack arm with separate nylon tie wrap. Acceptable manufacturers of non-metallic cable support racks are Underground Devices, Inc., Northbrook, IL and StrutTech/Axium Composites, Inc., Redmond, WA.

Acceptance is subject to manufacturer's certification of compliance with applicable specifications.

2.07 PULLING IRONS

- A. Provide all pulling-in irons, hooks and all other appurtenances as indicated on the Drawings and as required for a complete operational manhole or handhole. Pulling-irons to be manufactured with 7/8-inch diameter hot-dipped galvanized steel.

2.08 EPOXY CONCRETE ADHESIVE

- A. The epoxy concrete adhesive must conform to the requirements of Section 1025.01 of IDOT's Standard Specifications for Road and Bridge Construction (latest edition), and meet the approval of the Commissioner.

PART 3 CONSTRUCTION METHODS

3.01 UNCLASSIFIED EXCAVATION

- A. Provide all excavation for structures to the lines and grades for elevations, shown on the Drawings or as directed by the Commissioner. The excavation is to be of sufficient size to permit the placing of the full width and length of the structure shown. Excavated material is to be stockpiled where directed by the Commissioner. The elevations, as shown on the Drawings, are to be considered as approximate only; and the Commissioner may order, in writing, changes in dimensions or elevations necessary to secure a satisfactory installation.
- B. Boulders, logs, or other objectionable materials encountered in excavation are to be removed. All rock or other hard foundation material is to be cleaned of all loose material and cut to a firm surface either level, stepped or serrated, as directed by the Commissioner. All seams or crevices are to be cleaned out and grouted. Remove all loose and disintegrated rock and thin strata. When concrete is to rest on a surface other than rock, special care is to be taken not to disturb the bottom of the excavation, and excavation to final grade is not to be made until just before the concrete or reinforcing is to be placed.
- C. Provide all bracing, sheathing or shoring necessary to implement and protect the excavation and the structure, as well as protect existing adjacent structures located above or below grade as required, as required for safety or conformance to governing laws. The cost of bracing, sheathing or shoring is to be included in the unit price for the structure.
- D. Unless otherwise provided, bracing, sheathing, or shoring involved in the construction of this item is to be removed by the Contractor after the completion of the structure. Removal is to be effected in a manner which will not disturb or mar finish masonry. The cost of removal is to be included in the unit price bid for the structure. The Contractor is to notify the Commissioner

to the effect; and concrete or reinforcing steel is to be placed after the Commissioner has approved the depth of the excavation and the character of the foundation material.

3.02 CONCRETE STRUCTURES

- A. Concrete structures are to be built on prepared foundations, conforming to the dimensions and form indicated on the Drawings. Any reinforcement required, is to be placed as indicated on the Drawings and is to be approved by the Commissioner before the concrete is poured. Precast manholes and handholes are allowed as long as they meet all requirements of this specification. Precast units to be installed plumb and true. Joints to be made watertight by use of sealant at each key joint and at roof joint.
- B. The interior bottom is to be sloped downward toward the floor drain or outlet. Provide French Drain Sump or piped drain connection to manholes and handholes as shown or indicated on the Drawings.

3.03 PLACEMENT AND TREATMENT OF CASTINGS, FRAMES AND FITTINGS

- A. All castings, frames and fittings are to be placed in the positions indicated on the Drawings or as directed by the Commissioner, and must be set true to line and to correct elevation. If frames or fittings are to be set in concrete or cement mortar, all anchors or bolts are to be in place and position before the concrete or mortar is placed. The unit is not to be disturbed until the mortar or concrete has set.
- B. After the frames or fittings have been set in final position and the concrete or mortar has been allowed to harden for seven (7) days, the grates or covers are to be placed and fastened down.

3.04 BACKFILLING

- A. After a structure has been completed, the area around it is to be backfilled in horizontal layers all around the structure not to exceed 8 inches in loose depth, and compacted. The top of the fill is to meet the elevation shown on the Drawings or as directed by the Commissioner.
- B. All excavations must be backfilled within a reasonable time after the structures are installed, unless other required protection of the structure is directed. Backfill materials and compaction procedures must be acceptable to the Commissioner. In all backfilling, any compressible or destructible rubbish and refuse must be removed from the excavated space before backfilling is started, except that sheeting and bracing must be left in place or removed as the work progresses as specified or directed.
- C. The backfill material must be brought up evenly on each side of the structure to proposed grade. If under pavement, or within 2 feet of the proposed, future or existing pavement edge, fine aggregate backfill must be placed and compacted until the top of subgrade is reached. If the trench is not under, or

adjacent to, existing, proposed or future pavement, then acceptable fill must be placed and compacted to proposed grade.

- D. Structures excavated with sloped or bench walls must be backfilled for the full width of the excavation, as herein specified.
- E. The backfill material for fine aggregate must consist of natural sand or washed crushed limestone having a FA-6 gradation conforming to Section 1003 of the Standard Specifications for Road and Bridge Construction, Illinois Department of Transportation, latest edition. Acceptable fill for backfill is defined as suitable unclassified excavation material that is non-organic, non-decayable, and non-rubble material having a maximum dry density of not less than 98 pounds per cubic foot. It will contain no rocks, stones, or broken concrete greater than 3 inches in the largest dimension. The material must be easily compactable to the required density and approved by the Commissioner.
- F. Finish grading must be performed in accordance with the completed contour elevations and grades shown and must be made to blend into the existing or plan ground surfaces. All finished grading surfaces must be left smooth and free to drain. Finish grades must be brought to elevations within plus or minus 0.10 foot of elevations or contours shown.
- G. Fine aggregate backfill must be placed in uniform layers not greater than 8 inches in loose thickness and thoroughly compacted in place with suitable vibratory equipment to not less than 95% of the maximum density determined by ASTM D 1557. Each lift of fill must be within +/-2% of optimum moisture content before the succeeding lift is placed. If the backfill is acceptable fill it must be placed in uniform layers not greater than 12 inches in loose thickness and each layer compacted to 85% of maximum density as determined by ASTM D 1557.
- H. Backfill compaction must be tested and monitored by the Contractor. All material and backfill operations may be subjected to testing by the Commissioner with the assistance of the Contractor.
- I. Backfilling is not to be placed against any structure until permission is given by the Commissioner. In the case of concrete, such permission will not be given until the concrete has been in place a minimum of seven (7) days, or until tests made by the Contractor's QC organization and tested by the Contractor's approved laboratory, subject to the verification by the laboratory under supervision of the Commissioner establish that the concrete has attained sufficient strength to provide a factor of safety against damage or strain in withstanding any pressure created by the backfill or the methods used in placing it.
- J. The suitability of compacting equipment must be acceptable to the Commissioner. Tamping rollers (generally referred to as Sheepfoot Rollers) will be considered the proper type of equipment for compaction of cohesive

soils and vibratory/mechanical tamping equipment will be applicable for compacting granular soils. In all cases, the adequacy of the equipment will be determined by the Commissioner.

- K. Any depression which may develop from settlement in backfilled areas within 1 year after the work is fully completed and accepted must be the responsibility of the Contractor. The Contractor must provide as needed, at his own expense, additional backfill material, pavement, base replacement, permanent pavement repairs on replacement and must perform the necessary reconditioning and restoration work to bring such depressed areas to proper grade as acceptable to the Commissioner.

3.05 HEIGHT ADJUSTMENT OF ELECTRICAL MANHOLES AND HANDHOLES

- A. Where indicated on the Drawings and as directed by the Commissioner, existing manholes and handholes are to be adjusted to meet new finish grade elevations in accordance with the typical sections as detailed on the Plans. New grade elevations for existing manhole and handholes must match the proposed pavement and/or finish grade elevation at the specified location.
- B. When frames or fittings are to be placed upon previously constructed manholes, handholes, and structures, the bearing surfaces are to be brought true to line and grade. The unit is to be set in mortar beds and anchored to the existing manhole or handhole as indicated on the Drawings and as directed and the Commissioner. All units are to be set firm and secure.
- C. Areas around electrical manholes and handholes that have been disturbed or removed during construction must be restored to meet original conditions as outlined in Paragraph 3.08. Restoration work will not be measured and paid for separately. This work is to be included in the unit price for electrical manhole adjustment.

3.06 APPLICATION OF EPOXY CONCRETE BONDING ADHESIVE

- A. Where shown on the detail the epoxy concrete bonding adhesive is to be uniformly applied to coat the entire surface of the concrete remaining in place.

3.07 CLEANING AND RESTORATION OF SITE

- A. After the backfilling is completed, the Contractor is to dispose of all surplus material, soil, and rubbish from the site. Surplus soil may be deposited in embankments, shoulders, or as ordered by the Commissioner. The Contractor is to restore all disturbed areas to their original condition.

3.08 GROUNDING

- A. All non-current-carrying metallic parts of equipment and exposed metal in electrical handholes and manholes must be securely grounded to the grounding conductor. New conductors must be installed in a neat and workmanlike manner and must be securely held in place by means of straps

spaced at proper intervals. Exothermic welds must be used to make connections to grounding systems. The grounding requirement is 5 ohms.

- B. A ground rod must be installed in the floor of all concrete structures so that the top of the rod extends 6 inches (154 mm) above the floor. The ground rod must be installed within 1 foot of a corner of the concrete structure. Ground rods must be installed prior to casting the bottom slab. Where the soil condition does not permit driving the ground rod into the earth without damage to the ground rod, the Contractor must drill a 4-inch diameter hole into the earth to receive the ground rod. The hole around the ground rod must be filled throughout its length, below slab, with Portland cement grout. Ground rods must be installed in precast bottom slab of structures by drilling a hole through the bottom slab and installing the ground rod. Bottom slab penetration must be sealed watertight with Portland cement grout around the ground rod.
- C. For manholes and handholes, a grounding bus of 4/0 AWG bare stranded copper must be looped around the concrete structure walls and exothermically bonded to the ground rod. The ground bus must be a minimum of 1 foot above the floor of the structure and separate from other cables. Size 2 AWG bare copper pigtailed must bond the grounding bus to all metal hardware within the concrete structure. Connections to the ground bus must be by exothermic welding.

3.09 INTERFERENCE WITH OPERATION

- A. The normal operating functions of the Airport will be continued while the work under the Contract is being accomplished. Operations and work in some areas will be permitted only at specific times and suitable weather conditions. The installation of equipment and the opening of vital circuits must be done only for minimum intervals at such times and with such restrictions as accepted and agreed upon by the Commissioner and may be required during non-regular working hours. The installation of temporary wiring may also be required to permit operations and work in certain areas.

3.10 EXISTING MANHOLE CLEANING AND DEGASSING

- A. Pump out any water that may have accumulated in the existing manholes that are a part of the Underground Distribution system where work is to be performed. Remove all dirt and debris from the manholes and dispose of the refuse properly.
- B. Pump liquid out of manhole where the work will occur.
 - 1. Pump all clean water to a storm sewer or vegetated swale.
 - 2. Pick up any oil on top of water by a vacuum truck and properly dispose of per regulations.
- C. Examine the adjacent manholes and pump the liquid out of them to a level below the ducts running to the manhole to be worked in. The liquid level in

the adjacent manholes is to be held below the level of these ducts during the work period.

- D. Wash the walls and floor of the manhole that is to be worked in with water. Do not direct water against the cables.
- E. Pump the sediment laden wash water directly into a sediment trap, into a ditch or temporary ditch that leads to a sediment trap, or into sediment containing filter bag that leads to an existing storm sewer or vegetated swale. Discharge hose must have filter fabric or filtering device per EPA requirement.
- F. Gas test the manhole.
 - 1. The first step is to gas test for explosive hydrocarbon and hydrogen sulfide.
 - 2. If the manhole tests satisfactory for these gases, then test the manhole for the presence of benzene.
 - 3. The level of concentrations of gas must not exceed those allowed under the Williams-Steiger Occupational Safety and Health Act of 1970. A higher concentration of gas can be tolerated for a shorter duration (in accordance with the Safety and Health Act).
- G. If it is found necessary to decrease the concentration of gas to an acceptable level, fresh air is to be blown into the manhole and exhaust blowers are to be used on adjacent manholes.
- H. If the concentration of gas will permit exposure for a short duration, but is too high for an extended exposure, plug the ducts to adjoining manholes, using untapped, unoiled jute packing (Oakum) or conduit seals. If necessary, blowers are to be used during the plugging operations.
 - 1. Continue to operate the blowers until the gas concentration is acceptable. This may require overnight operation.
 - 2. Manholes may be further cleaned by using sawdust or mulch to absorb water and oil from manhole floors. This absorptive material is to be removed when the work in the manhole is finished.
- I. Removing the covers from both the manhole to be worked in and the adjacent manholes is also helpful. These covers should be left off after the manholes are pumped out and until the degassing work is completed. Provide barricades for open manholes.
- J. All manholes in the work area, affected by this Contract are to be kept clean during the term of this Project.
 - 1. The presences of liquids, fumes, litter or debris will not be tolerated.
 - 2. The manhole cleaning and degassing requirement with appropriate and approved modifications, is to be used to obtain clean and dry manholes during the construction period.

3. Inspection of manholes to maintain the above criteria will be done periodically as directed by the Commissioner.

PART 4 METHOD OF MEASUREMENT

- A. Measurement of electrical equipment removal and reinstallation will be measured per each unit removed and reinstalled completed, ready for operation, and accepted as satisfactory by the Commissioner.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Payment for electric handholes will be made at the contract unit price per each installed by the Contractor and accepted by the Commissioner. This price includes full compensation for furnishing all materials and for all preparation and installation of these materials, and for all labor, equipment, tools, and all work necessary to complete this item.

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|----------------------|------|
| L-115-5.01 | ELECTRICAL HANDHOLES | EACH |

END OF SECTION L-115

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CLEARING AND GRUBBING

SECTION P-151

PART 1 DESCRIPTION

1.01 GENERAL

- A. This item will consist of clearing and grubbing, including the disposal of materials including accumulations of rubbish of whatever nature, off the Airport or areas within the limits designated on the Drawings, or as required by the Commissioner.
- B. Tree removal will consist of the cutting and removal of all trees, stumps brush, logs, hedges and other loose or projecting material from the designated areas. The grubbing of stumps and roots will not be required.

PART 2 MATERIALS

(Not Used)

PART 3 CONSTRUCTION METHODS

3.01 GENERAL

- A. The areas denoted on the Drawings to be cleared or cleared and grubbed must be staked on the ground by the Contractor and approved by the Commissioner prior to starting cleaning and grubbing activity. The clearing and grubbing must be done a satisfactory distance in advance of the grading operations.
- B. All spoil materials removed by clearing or by clearing and grubbing must be disposed off the Airport to approved disposal areas. Disposal by burning will not be allowed.
- C. All waste concrete and masonry must be disposed off the Airport, at no additional cost to the contract.
- D. In no case will any discarded materials be left in windrows or piles adjacent to or within the Airport limits. The manner, location and disposal of materials will be subject to the approval of the Commissioner and must not create an unsightly or objectionable view. When the Contractor is required to locate a disposal area outside the Airport property limits at his/her own expense, he must obtain and file with the Commissioner permission in writing from the property owner for the use of private property for this purpose. Blasting will not be allowed.
- E. The removal of existing structure and utilities required to permit orderly progress of work will be accomplish by local agencies, unless otherwise shown on the Drawings. Whenever a telephone or telegraph pole, pipeline, conduit, sewer, roadway or other utility is encountered and must be removed or relocated, the

Contractor must advise the Commissioner who will notify the proper local authority or owner and attempt to secure prompt action.

3.02 CLEARING

- A. The Contractor must clear the staked or indicated area of all objectionable materials. Trees unavoidably falling outside the specified limits must be cut up, removed, and disposed of in a satisfactory manner. In order to minimize damage to trees that are to be left standing, trees must be felled toward the center of area being cleared. The Contractor must preserve and protect from injury all trees not to be removed. The trees, stumps, and brush must be cut to a height of not more than 12 inches above ground.
- B. When isolated trees are designated for clearing, the trees will be classed in accordance with the butt diameter size as measured at a point 18 inches above the ground level or at a designated height specified in the proposal.
- C. Piles of debris, sidewalks, concrete equipment pads, materials shown on the plans to be cleared, and miscellaneous materials on site that impair the contractor's work, must be cleared from the site under this item.

3.03 CLEARING AND GRUBBING

- A. In areas designated to be cleared and grubbed, all stumps, roots, buried logs, brush, grass, and other unsatisfactory materials must be removed, except where embankments exceeding 3-1/2 feet in depth outside of pavement areas. In cases where such depth of embankments is to be made, all unsatisfactory materials must be removed, but stumps and brush can be cut off within 6 inches above the ground and allowed to remain. Tap roots and other projections over 1-1/2 inches in diameter must be grubbed out to a depth of at least 18 inches below the finished subgrade or slope elevation.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. When trees are designated for removal, the quantities of trees, as determined in accordance with ranges of butt diameter size, measured at a point 18 inches above the ground level at the tree, will be paid for according to the schedule of sizes as follows:
 - 1. The number of trees:
 - a. From 6 inches to 18 inches, butt diameter
 - b. From 18-1/4 inches to 32 inches , butt diameter
 - c. From 32-1/4 inches or more, butt diameter
- B. Trees under 6 inches, butt diameter will not be measured for payment.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Payment will be made at the Contract unit price for EACH tree removal. This price will be full compensation for furnishing all materials and for all labor, equipment, tools, and all work necessary to complete the item.
- B. Payments will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|--|------|
| P-151-5.01 | TREE REMOVAL, 6 INCHES TO 18 INCHES, BUTT DIAMETER | EACH |

END OF SECTION P-151

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TEMPORARY AIR AND WATER POLLUTION,
SOIL EROSION AND SEDIMENT CONTROL
SECTION P-156

PART 1 DESCRIPTION

1.01 GENERAL

- A. This item consists of temporary control measures as shown on the Plans or as ordered by the Commissioner during the life of the Contract to control water pollution, soil erosion, and sediment control through the use of aggregate berms, earth berms, temporary ditches, ditch and watercourse checks, sediment traps, sediment logs, erosion control blankets, stone, temporary seeding, inlet and pipe protection, and other erosion control devices or methods.
- B. This specification will be used in conjunction with the Plans and the Storm Water Pollution Prevention Plan (SWPPP).
- C. The Contractor must control soil erosion in accordance with the provisions of the NPDES permit issued by the Illinois Environmental Protection Agency (IEPA) for stormwater discharges from construction site activities.
- D. The Contractor must meet the Specifications of the Illinois Urban Manual (2002, published by IEPA and Illinois Natural Resources Conservation Service), as modified in the Drawings and Specifications.
- E. The Contractor must coordinate temporary erosion control measures with the permanent erosion control measures to the extent practical to assure economical, effective, and continuous erosion control throughout the construction period.
- F. Temporary erosion control is not limited to areas within the construction limits; construction operations at sites such as borrow pits, equipment and material storage sites, waste areas, temporary stock piles, temporary plant sites, and others are also subject to erosion control requirements.
- G. Prior to commencing land disturbing activities other than those indicated on the Plans (including but not limited to additional phases of the development and off-site borrow, waste, asphalt and/or concrete batch plant areas) a supplemental erosion and sediment control plan must be submitted to the Commissioner for review and approval by North Cook County Soil and Water Conservation District (NCCSWCD) or Kane DuPage Soil and Water Conservation District (KDSWCD).

1.02 REFERENCES

- A. Illinois Department of Transportation - Standard Specifications for Road and Bridge Construction, latest edition (SSRBC).
- B. Illinois Urban Manual: A Technical Manual for Urban Ecosystem Protection and Enhancement, latest edition. United States Department of Agriculture, Natural Resources Conservation Service, Champaign, Illinois.

C. Soil Erosion and Sediment Control Plan for the O'Hare Modernization Program.

1.03 DEFINITIONS

A. Channels: All ditches and watercourses will be considered "channels."

1.04 SUBMITTALS

Contractor to submit Product Data – catalogs, brochures, and performance and test data to support conformance with the Specifications for the materials to include but not limited to:

- A. Temporary Seed – Signed statement by Vendor certifying that each lot of seed has been tested by a recognized laboratory for seed testing, within 6 months of delivery. Statement must include: name and address of laboratory, date of test, lot numbers for each kind of seed, results of the tests as to seed name, percentages of purity, and of germination, and in case of mixture, the proportion of each kind of seed.
- B. Mulch
- C. Erosion Control Blanket
- D. Fertilizer
- E. Silt Fence and Stakes
- F. Sediment Log and Stakes
- G. Sediment Containment Filter Bag
- H. Inlet Protection
- I. Polymer (Power form)
- J. Polymer (Floc Log form)
- K. Geotextile Fabric
- L. Jute Netting
- M. Temporary Stream Crossing – Aggregates, pipe, and installation drawing
- N. Concrete Washout Facility – 30 mil polyethylene liner
- O. Aggregates – Gradation test for each size of aggregate by a certified testing laboratory.

PART 2 MATERIALS

2.01 SEEDING, TEMPORARY

- A. Temporary Protection by Vegetation.
 - 1. Seed:

- a. For disturbed areas that will not be in the active work area between 14 days and 365 days, seed must be applied at the following rates:

| Mixture | Temporary Grass Seed Mixture | Lbs/acre (pure live seed) |
|---------|------------------------------|---------------------------|
| 1 | Cereal rye | 90 |
| | Perennial ryegrass | 25 |
| 2 | Spring Oats | 90 |
| | Perennial ryegrass | 25 |

2.02 MULCH

- A. Mulch may be hydromulch, polymer, or other suitable material approved by the Commissioner that is reasonably clean and free of noxious weeds and deleterious materials. Hay, straw, bark, or woodchips are not permitted for use as mulch.

2.03 EROSION CONTROL BLANKET

- A. Erosion Control Blanket must consist of a machine produced mat of straw fiber and must be furnished in rolls that meet the following requirements. Acceptable manufacturers include North American Green, Enviroscape ECM, Ltd., and U.S. Construction Fabrics LLC.
- B. The appropriate type of Erosion Control Blanket (short term or long term) must be installed as shown on the Plans.
- C. Slopes, channels, ditches, swales, conveyances, flow lines, etc., must be stabilized with Erosion Control Blanket as shown on the Drawings:
 - 1. Slopes greater than 4 to 1 and all channels, swales, conveyances, flow lines must be stabilized with double net blanket.
 - 2. Slope of 4 to 1 must be stabilized at a minimum with a single net blanket.
 - 3. Slopes less than 4 to 1 do not require blankets unless indicated on the drawings.
- D. "U" shaped staples must consist of 0.12 inch diameter (No. 11 wire gage) or greater, with a minimum leg length of 6 inches and a minimum width of 1 inch and must be used to anchor the Erosion Control Blanket. In sandy soils, the minimum leg length of the staples must be 9 inches. Push pins or circle top pins are acceptable and must meet the material specifications stated above.

2.04 FERTILIZER

- A. Fertilizer must meet the requirements of Section 02931 - Seeding. Fertilizer must be a standard commercial grade and must conform to all federal and state regulations and to the standards of the Association of Official Agricultural Chemists.

2.05 SILT FENCE

- A. Materials for silt fence must be in accordance with the detail Drawings. Filter fabric for the silt fence must meet the Illinois Urban Manual material Specification 592 as indicated on the Drawings.

2.06 COARSE AGGREGATE AND RIPRAP

- A. Coarse Aggregate and Riprap material (for Aggregate Berm, Riprap, Inlet and Pipe Protection, Construction Entrances, or other erosion control functions) used for erosion control must meet the requirements of IDOT SSRBC. Coarse Aggregate must consist of CA-1, CA-2, CA-3 or CA-4 as indicated on the Drawings. Riprap must consist of Gradation No. RR3 or RR 4; and geotextile fabric must meet the requirements of the Illinois Urban Manual material Specification 592, unless otherwise directed by the Commissioner.

2.07 SEDIMENT LOG AND GEOSYNTHETIC CHECK STRUCTURE

- A. Material for Sediment Logs must be either American Excelsior Company standard 12-inch diameter Curlex Sediment Log, North American Green Sediment Stop, Western Excelsior Excel Aspen Excelsior Logs or similar 12-inch diameter (minimum) and as approved by the Commissioner.
- B. Material for Geosynthetic check structure must be rigid or foam pad wrapped with geosynthetic fabric material meeting the requirements of the Illinois Urban Manual material Specification 592.

2.08 SEDIMENT CONTAINMENT FILTER BAG

- A. Sediment Control Filter Bags must be ACF Environmental ERO-TEX dewatering filter bag, US Fabrics filter bag, or JMD Enviro-Protection filter bag as approved by the Commissioner, of the size required to adequately filter pumped water per the manufacturers' specifications.

2.09 INLET PROTECTION AND PIPE (CULVERT) PROTECTION

- A. Material for Pipe Culvert Protection must be Coarse Aggregate meeting the standards defined above for Coarse Aggregate and Riprap.
- B. Materials for Above Ground Inlet protection must be per the manufacturer's specification, and as approved by the Commissioner. Acceptable products for above ground inlet protection include the following:
 - 1. Storm Drain Inlet Frame and Filter Assembly by Silt Saver Sediment Control Products
 - 2. Sediguard Inlet Protection Device by Earth Support Systems
 - 3. Dandy Bag, Curb Bag, and Dandy Pop by Dandy Products.
- C. Materials for Below Ground Inlet protection must be per manufacturer's specification, and as approved by the Commissioner. Acceptable products for below ground inlet protection include the following:
 - 1. Catch-All Inlet Protector by Mar-Mac Manufacturing Co., Inc.

- 2. Dandy Sack and Dandy Curb Sack by Dandy Product
 - 3. SedCatch Sediment Basket by SedCatch Environmental Products
- D. Inlet protection is only to be used as a filter for sheet flow or in conjunction with a sediment containment filter bag. Inlet protection is not to be used as a filter for dewatering directly to the structure.
- 2.10 SUMP PIT
- A. Materials for Dewatering Sump must be 2 inch Coarse Aggregate and a filter fabric, with a ¼- to ½-inch hardware cloth wire placed around the standpipe prior to attaching the filter fabric, as shown and described in CDA Detail No. 7-03-02E.
- 2.11 POLYMER
- A. The polymer must be a water-soluble anionic polyacrylamide (PAM) used to minimize soil erosion, bind soil particles, remove suspended particles, and act as a construction aide. All site-specific soils must be tested by a Certified Professional in Erosion and Sediment Control (CPESC) each time a PAM is used. The polymer must be used in accordance with manufacturer's guidelines and as approved by the Commissioner.
 - B. Anionic PAM mixture must have ≤ 0.05% free acrylamide monomer by weight as established by the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA).
 - C. The PAM mixture must be accompanied by manufacturers written instructions to ensure proper (1) Product and Site Preparation, (2) Application, (3) Maintenance/Re-application, (4) Storage, and (5) Safety, in accordance with Occupational Safety and Health Administration (OSHA) material safety data sheet (MSDS) requirements and other applicable guidelines including manufacturer's recommendations for specified use.
 - D. Anionic PAM application must comply with all federal, state, and local laws, rules or regulations governing anionic PAM. The Contractor will be responsible for securing any required permits.
 - E. In addition to soil testing, a CPESC must design the installation plan for the polymers based on mix time and point of entry.
 - F. The materials used must be harmless to plant and aquatic life.
 - G. Different types of polymers may be required for each soil type or combination of soils. The manufacturer or supplier will provide general written application methods, based on site conditions, such as slope and soil type.
- 2.12 GEOTEXTILE FABRIC
- A. Geotextile fabric material must meet the requirements of the Illinois Urban Manual material Specification 592 – Geotextile as indicated on the detail Drawings.

2.13 JUTE NETTING

- A. Jute netting must be of a uniform, open, plain weave, undyed and unbleached single jut yarn. The yarn must be of loosely twisted construction and must not vary in thickness by more than one-half its normal diameter.
- B. Minimum width must be 48 inches, + or – 1 inch from manufacturer's rated width.
- C. Seventy-eight warp ends per 4 feet of width.
- D. Forty one weft ends per yard.
- E. Weight must average 1.22 pounds per linear yard, with a tolerance of ±5 percent.
- F. The opening size for the weave must not be larger than 5/8" by 5/8".
- G. Jute netting must be used in conjunction with polymer (PAM) as per CPESC and the Commissioner.

2.14 TEMPORARY CONCRETE WASHOUT FACILITY

- A. Install a device to control concrete wastes to prevent both on-site and off-site pollution. The device must be installed on any construction site where concrete is used.
- B. Temporary concrete washout facility must be in accordance with CDA Standard Detail No. 7-03-02II Barrier Type or 7-03-02JJ Earthen Type or 7-03-02KK Straw Bale Type.
- C. Temporary concrete washout facilities must be supplied in sufficient quantity and size to manage all liquid and solid wastes generated by washout operations.
- D. The walls of above grade facilities may be constructed of straw bales, barrier walls, or earthen berms. Straw bales and barrier walls must be butted tightly end-to-end. All types of concrete washout facilities must be lined with a 30-mil polyethylene liner free of holes and tears and must be secured using sandbags, 6" wire staples, or other anchors, as approved by the Commissioner.

2.15 OTHER

All other materials must meet commercial grade standards and must be approved by the Commissioner before being incorporated into the Project.

PART 3 CONSTRUCTION METHODS

3.01 GENERAL

- A. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other federal, state, or local agencies, the more restrictive laws, rules, or regulations must apply.

3.02 SCHEDULE

- A. Prior to the start of construction, the Contractor must submit schedules (timing for erosion control work to be performed relative to other construction items) for accomplishment of temporary and permanent erosion control work. The Contractor must also submit a proposed method of erosion and dust control on

haul roads and borrow pits and a plan for disposal of waste materials. Work must not be started until the erosion control schedules and methods of operation for the applicable construction have been accepted by the Commissioner and initial erosion control items have been properly installed.

3.03 AUTHORITY OF COMMISSIONER

- A. The Commissioner has the authority to limit the surface area of erodible earth material exposed by clearing and grubbing, to limit the surface area of erodible earth material exposed by excavation, borrow and fill operations, and to direct the Contractor to provide immediate permanent or temporary pollution control measures to minimize contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment.

3.04 TEMPORARY RE-ROUTING OF CHANNELS

- A. Re-Routing Channels. All channels must continue to provide existing flow capacities until new stormwater conveyance and storage structures are constructed and fully operational. For construction practices that reduce channel capacity for longer than the working hours of one work day, the Contractor must re-route the channel, and allow at least the original flow capacity and in the case of regulated streams, according to the IDNR permit requirements. The channel must be replaced to original contours after construction, unless otherwise shown on the Plans or directed by the Commissioner.
- B. Re-routed Channel Protection. Re-routed channels must be protected from erosion and sediment using Erosion Control Blanket (single or double net), Turf Reinforcement Mat (TRM), Geofabric, Temporary Seeding, Riprap, Sediment Log, Geosynthetic Check Structure, Aggregate Ditch Check, and as directed by the Commissioner.

3.05 CHANNEL CHECKS

- A. All channels must be protected from erosion from surrounding construction zones. Channel checks must consist of Aggregate Berms, Sediment Logs and others. Channel checks must be installed prior to disturbing land within their drainage areas; must be installed during the lowest reasonable flow conditions; and must be installed in a manner to minimize disturbance. The purpose of this practice is to reduce flow velocity and to pond water, thereby reducing active channel erosion and promoting settling of suspended solids.
- B. Sediment accumulated upstream of channel checks (including Aggregate Berms, Sediment Logs, and others) must be removed when it reaches $\frac{1}{2}$ the height of the check spillway invert. Removed sediment must be deposited in an area previously approved by the Commissioner. Sediment must not be placed in areas that contribute to sediment off-site or are not permanently stabilized.
- C. Remove and replace stone for Aggregate Berms when the structures become plugged, silt laden, or as required by the Commissioner.
- D. Aggregate Berms. Aggregate Berms in channels must be constructed from stone (coarse aggregate and riprap) as shown on the Drawings. Stone for Aggregate Berms must be placed on the surfaces and to the depths specified.

Stone must be placed in one operation and in such a manner to avoid serious displacement of the underlying materials. Stone must be delivered and placed in a manner to ensure that the stone is reasonably homogeneous with the larger stones evenly distributed and firmly in contact with one another with smaller stones filling the voids between the larger stones:

1. Height. Aggregate Berms must have a minimum height of 12 inches and a maximum height of 36 inches.
 2. Spillway. Aggregate Berms must be installed with sides 6 inches to 12 inches higher than the central spillway, forming a weir.
 3. Dimensions. Aggregate Berms must have a minimum top width of 2-feet measured in the direction of flow with maximum side slopes of 2:1 (h:v).
 4. Location. Aggregate Berms must be placed and sized such that resultant ponding must not cause inconvenience or damage to adjacent areas, such as roads.
 5. Stability. For additional stability in higher flow channels, Aggregate Berms should be keyed into the soil to a depth of 6-inches.
- E. Sediment Logs. Sediment logs must be installed according to the manufacturer's instructions, except as modified in the Contract Drawings and Specifications. Sediment logs must be keyed into the soil to a depth of two inches, unless otherwise directed by the Commissioner.
- F. Geosynthetic Check Structure: Fabric material that covers rigid foam pad must be stapled in a 3 to 6 inch trench on the upstream end and securely stapled to the ground on both sides of the check structure. The center of the geosynthetic check structure must be 6 inches lower than the sides and secured (barrier and fabric) in the ground staples.

3.06 STABILIZED CONSTRUCTION ENTRANCE

- A. Stabilized Construction Entrance must be used at all points of construction ingress and egress to public roads.
- B. The aggregate for the construction entrance must meet the requirements of IDOT SSRBC and Geotextile Fabric must meet the requirements of the Illinois Urban Manual material Specification 592.
- C. Each construction entrance must meet the following minimum dimensions: thickness of 6 inches, width of 14 feet; but not less than full width of ingress or egress point, and length of 70 feet. Filter fabric must be installed under aggregate to minimize the migration of the stone into the underlying soil.

3.07 DEWATERING

- A. Temporary Dewatering Sump. Pumping water from open trenches or other areas must be performed in a manner to minimize the turbidity of the pumped water in accordance with Illinois Urban Manual IL-650. This pumping must involve using filter fabric over the inlet hose and burying the inlet hose in an aggregate-filled hole at the bottom of the trench, as shown in the Drawings, or other methods approved by the Commissioner. Water must be pumped directly into a sediment

trap, into a ditch or temporary ditch that leads to a sediment trap, or into a sediment containment filter bag.

- B. Sediment Containment Filter Bag. When water cannot be pumped to a sediment trap, or site conditions call for use of an additional layer of erosion control, water must be pumped directly to a Sediment Containment Filter Bag. Sediment Containment Filter Bags must be used according to the manufacturer's instructions, as modified by the Contract Drawings and Specifications. Sediment Containment Filter Bag must be placed on bedding as shown in the Drawings.

3.08 TEMPORARY STOCKPILES

- A. Stockpile Sediment and Erosion Control. If a stockpile is to remain in place more than 3 days, perimeter barrier and "tracking" with machinery (grooving) up and down the slope must be provided. If the construction activity temporarily or permanently ceases, and construction activity will not occur for a period of 14 days, temporary stabilization must be initiated for each stockpile within 1 working day after activity has ceased. If the stockpile is to remain inactive for more than 365 days, the stockpile must be permanently seeded per Contract Specifications. Stockpile sediment and erosion control can include Temporary Seeding, Polymer, Silt Fence, Erosion Control Blanket, or other methods approved by the Commissioner. Contractor must maintain the installed sediment and erosion control measures for the duration of the Project or until the Contractor's responsibilities for maintenance cease as determined by the Commissioner.

3.09 SEDIMENT TRAPS AND TEMPORARY DITCHES

- A. Sediment Trap: Sediment Traps must meet the following Specifications:
 - 1. Depth. Sediment trap must be a minimum of 2 feet measured from the sediment trap bottom to the invert of the stone outlet to provide sediment and detention storage.
 - 2. Shape: Sediment trap must have a length-width ratio of at least 2:1. Side slopes must be no steeper than 2:1 (h:v) and must be stabilized.
 - 3. The surface of the trap must be stabilized with Geotextile Fabric which meets the Illinois Urban Manual material Specification 592. The trap must be maintained and regularly cleaned of sediments to maintain its holding capacity. Any damaged fabric must be replaced or repaired.
 - 4. Outlet: The position of the outlet must be placed to minimize short-circuiting of the water flow path. The crest of the spillway must be at least 1 foot below the top of the embankment. The width of the rock check dam outlet must span the width of the outlet channel. The top of the rock check dam outlet must be constructed so that the center is approximately 6 inches lower than the outer edges. Discharge from the outlet must be to a stabilized area.
- B. Stone Outlet Structure for Sediment Trap:
 - 1. Riprap (RR-4) for Stone Outlet Structure must meet the requirements of IDOT S.S.R.B.C.

2. Geotextile Fabric must meet the requirements of the Illinois Urban Manual material Specification 592.
 3. Cost of Geotextile Fabric is included in the pay item of stone outlet structure for sediment trap and no additional payment will be made.
- C. Temporary Ditch. Temporary Ditches must be constructed as shown on the Drawings or as directed by the Commissioner to provide drainage paths to sediment traps. These ditches must have side slopes no steeper than 2:1 (h:v). The slopes of the temporary ditch must be stabilized with Temporary Seeding, Erosion Control Blanket, (single, double net or TRM), Geofabric, and/or Riprap as directed by the Commissioner, before ditches convey flow.

3.10 INLET AND PIPE (CULVERT) PROTECTION

- A. All inlets to storm sewers that will potentially be affected by the Contractor's construction activities must be protected with Inlet and Pipe Protection barriers. Coarse Aggregate for culvert protection, Drop Basket or any above ground inlet protection meeting manufacturer's specification and as approved by the Commissioner must be installed at the direction of the Commissioner.
- B. Inlet protection must be constructed before upslope land disturbance begins and before the storm drain becomes operational.
- C. The inlet protection barriers must allow for overflow from a severe storm event.

3.11 SILT FENCE

- A. Silt Fence must be installed in accordance with the Illinois Urban Manual where erosion would occur in the form of sheet flow and there is no concentration of water flowing to the barrier. Silt Fence must be placed as close to the contour as possible with the ends extending upslope. The area below the fence must be undisturbed or stabilized, if possible. Fence posts must be a minimum of 48 inches long and with a minimum cross sectional area of 3.0 square inches. The maximum spacing between posts must be 5 feet and driven a minimum of 18 inches into the ground. The silt fence must be entrenched to a minimum depth of 6 inches with an additional 6 inches extending along the bottom of the trench in the upslope direction.

3.12 RIPRAP AND COARSE AGGREGATE

- A. Riprap and Coarse Aggregate are specified for use in several erosion control items as shown on the detail Drawings.
- B. Where filter fabric is required on the Drawings, the fabric must conform to the Illinois Urban Manual material Specification 592 Geotextile.
- C. Coarse aggregate and riprap or rock/reclaimed concrete for Culvert Inlet Stone Protection, Temporary Sediment Trap, and Stabilized Construction Entrance must be placed in accordance with the IL Urban Manual construction Specification 25 Rockfill, using Method 1 and Class III compaction:
 1. Foundations for rockfill must be stripped to remove vegetation and other unsuitable materials. Earth foundation surfaces must be graded to remove surface irregularities and cavities filled with compacted earthfill of

approximately the same kind and density as the adjacent foundation material. Rockfill and/or bedding must not be placed until the foundation preparation is completed and the foundation or excavations have been inspected and approved by the Commissioner.

2. When a bedding layer beneath rockfill is specified, the bedding material must be spread uniformly on the prepared subgrade surfaces to the depth indicated.
3. Reclaimed concrete materials must be free from reinforcing bars.
4. For Method 1 placement, the rock must be dumped and spread into position in approximately horizontal layers not to exceed 3 feet in thickness. It must be placed in a manner to produce a reasonably homogeneous stable fill that contains no segregated pockets of large or small fragments or large unfilled rock fragments.
5. Moisture content of the bedding material must be controlled to ensure that bulking of the sand material does not occur.
6. Class III Compaction of Rockfill and Bedding – No compaction will be required beyond that resulting from the placing and spreading operations.

D. Riprap for Pipe Outlets and Structural Streambank Stabilization must be placed in accordance with the Illinois Urban Manual construction Specification 61 Rock Riprap:

1. The subgrade surfaces on which the rock riprap, filter, bedding or geotextile is to be placed must be cut or filled and graded to the lines and grades as shown on the Drawings. When fill to subgrade lines is required, it must consist of approved materials and conform to the requirements of the specified class of earthfill. Rock riprap, filter, bedding or geotextile must not be placed until the foundation preparation is completed and the subgrade surfaces have been inspected and approved by the Commissioner.

2. Equipment–Placed Rock Riprap:

The rock riprap must be placed by equipment on the surfaces and to the depths specified. The rock riprap must be installed to the full course thickness in one operation and in such a manner as to avoid serious displacement of the underlying materials. The rock for riprap must be delivered and placed in a manner that will ensure that the riprap in-place will be reasonably

homogeneous with the larger rocks uniformly distributed and firmly in contact with one another, with the smaller rocks and spalls filling the voids between the larger rocks. Some hand placing may be required to provide a neat and uniform surface. Rock riprap must be placed in a manner to prevent damage to structures. Hand placing will be required or necessary to prevent damage to any new and existing structures.

3. Hand–Placed Rock Riprap:

The rock riprap must be placed by hand on the surfaces and to the depths specified. It must be securely bedded with the larger rocks firmly in contact with one another without bridging. Spaces between the larger rocks must be filled with smaller rocks and spalls. Smaller rocks must not be grouped as a substitute for larger rock. Flat slab rock must be laid on its vertical edge; except where it is laid like paving stone and the thickness of the rock equals the specified depth of the riprap course.

When the Drawings specify filter, bedding or geotextile beneath the rock riprap, the designated material must be placed on the prepared surface as specified. Compaction of filter or bedding aggregate will not be required, but the surface of such material must be finished reasonably smooth and free of mounds, dips, or windrows.

3.13 MULCH AND EROSION CONTROL BLANKET

- A. Mulch must be installed immediately after seeding by conventional method or hydromulching, after seedbed preparation, when dormant seeding is to be provided and when temporary erosion control is to be attained. Mulch must be applied any time soil and site conditions are suitable for spreading and anchoring.
- B. The erosion control blanket (single, double net or TRM) must be installed in accordance with the manufacturer's specification and requirements. The erosion control blanket must be in firm contact with the soil. It must be anchored per the manufacturer's recommendation with the proper number and spacing of wire staples. The staples must be the proper width and length to meet the manufacturer's specification. On slopes and in channels the blanket must be unrolled upstream to downstream parallel to the direction of flow. At the upstream end and at the top of the slope, each blanket must be anchored in a minimum 6-inch deep anchor trench. The blankets must be laid like shingles, i.e., ends and edges of blanket sections must be overlapped in rows in the direction of flow.
- C. The type of erosion blanket must be based on the flow velocity and shear force in the channel.

3.14 POLYMER AND FLOC LOG

- A. All vendors and suppliers of polyacrylamide (PAM), PAM mix or blends must present or supply a written toxicity report which verifies that the PAM, PAM mix or blend exhibits acceptable toxicity parameters which meet or exceed the requirements for the state and federal water quality standards. No Cationic formulations of PAM, PAM blends, polymers of Chitosan are allowed for use under this Specification.

The manufacturer or supplier must provide a product expiration date for anionic PAM mixtures based on product expiration date of PAM in pure form.

The application method must provide uniform coverage to the target area and avoid drift to non-target areas. The applicator of anionic PAM must document, at the time of application, the following:

1. Name of applicator
2. Application rate per acre
3. Date applied
4. Product type
5. Weather conditions during application
6. Method of application

Copies of this documentation must be entered into the Contractor's monitoring log or project diary and made available upon request.

Unused liquid anionic PAM mixtures must be minimized. Excess material will not be applied at a rate greater than the maximum application rate. Disposal must not occur in Waters of the U.S. (W.U.S.) and stormwater conveyance systems (i.e. storm sewer manholes, storm sewer inlets, ditches, and culverts).

Anionic PAM mixtures must achieve $\geq 80\%$ reduction in soil loss as measured by a 1 hour storm duration 2 inch/hour rainfall simulator test performed in accordance with methods used by Bubenzer and Patterson (1982) as pre-qualification for field testing.

Performance of anionic PAM mixtures must be verified and field-tested. The manufacturer must provide a toxicological report for the Polymer Binder performed by a third-party, EPA approved laboratory.

Anionic PAM use must conform to all federal, state, and local laws, rules, and regulations regarding use, discharge, and disposal of chemical materials.

- B. Floc Log Application: A Floc Log is a semi-hydrated polyacrylamide block that when placed within storm water or construction site drainages will remove fine particles and reduce NTU values. Placement of the floc log should be as close to the source of particle suspension as possible. Ideal performance of the floc logs results when used in conjunction with other best management practices. Each floc log is formulated for the soil and water chemistry at the site. Soil and water samples, when tested, will determine which formula floc log is needed along with proper placement.

3.15 TEMPORARY SEEDING

- A. This work consists of the temporary seeding of unfinished, disturbed areas as designated by the Commissioner within the construction site.
- B. Except as provided in paragraphs 3.16C and 3.16D below, stabilization measures must be initiated as soon as practical in portions of the site where construction activities have temporarily or permanently ceased:
 1. During dormant seasons (between June 15 and August 15 and between November 15 and December 31 or until the ground becomes frozen) mulch must be applied.
 2. Disturbed areas that will not be in the active work area for longer than one year must be seeded and fertilized in accordance with Section 02931-

Seeding within 1 working day after suspension of work in the area with seedbed preparation.

- C. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures must be initiated as soon as practical.
- D. Where construction activity will resume on a portion of the site within 14 days from when activities ceases, (e.g. the total time period that construction activity is temporarily ceased is less than 14 days) then stabilization measures must be initiated on that portion of site within 1 day after construction activity temporarily ceases.
- E. Dates: Temporary seeding must occur between March 15 and October 1. If protection is required outside of these dates, mulch must be used.
- F. Seedbed Preparation: Seedbed preparation must be as described in Section 02931 - Seeding. A rough seedbed must be obtained with a minimum of one pass with a disc harrow.
- G. Fertilization of Temporary Vegetation. The Contractor must perform soil tests to determine the amount of fertilizer necessary. The following rates of fertilizer application are the benchmark application rates per acre, but the Contractor must aim to minimize the amount of fertilizer used, while still allowing for the healthy growth of the seed:
 - 1. Nitrogen (N) - 120 pounds of N
 - 2. Phosphorus (P) - 60 pounds of P₂O₅
 - 3. Potassium (K) - 60 pounds of K₂O

3.16 MAINTENANCE OF TEMPORARY CONCRETE WASHOUT FACILITY

- A. Perform washout of concrete trucks in designated areas only. Each temporary washout facility must have appropriate signage to inform concrete truck drivers and equipment operators of the proper washout locations. The concrete washout facility must be installed prior to any concrete placement on site.
- B. Each facility must be located in an area protected from possible damage from construction traffic and have stabilized access to prevent tracking onto streets. Washout facilities must be located on level ground a minimum of 50 feet from storm drain inlets and open drain facilities. For smaller sites where the distance criteria may not be practical, washout facilities must be located as far from drainage facilities as possible and additional inspections must be conducted to ensure no illicit discharges occur.
- C. Washout water from low volume facilities must be allowed to evaporate and not be discharged into the environment. Washout water from high volume facilities must be removed with a vacuum truck and taken back to the batch plant.
- D. Solidified concrete waste from washout facilities shall be considered Clean Construction or Demolition Debris (CCDD) as per the Illinois Environmental Protection Act (415 ILCS 5) and must be disposed of in accordance to the Act.

- E. Temporary concrete washout facilities must be maintained to provide adequate holding capacity with a minimum freeboard of 4 inches for above grade facilities and 12 inches for below grade facilities. Existing facilities must be cleaned, or new facilities must be constructed and ready for use once the washout is two-thirds full.
- F. Maintaining temporary concrete washout facilities must include removing and disposing of hardened concrete or slurry and waste in accordance with Federal and State regulations or as directed by the Commissioner, and returning the facilities to a functional condition.
- G. When temporary concrete washout facilities are no longer required for the Work, the facilities must be removed from the site. Holes, depressions, or other ground disturbances caused by the removal must be restored to the satisfaction of the Commissioner. The disturbed area must be seeded and mulched or otherwise stabilized in a manner acceptable to the Commissioner.

3.17 CONSTRUCTION DETAILS

- A. The Contractor must incorporate all erosion control features into the Project at the earliest practical time as outlined in the accepted schedule.
- B. Temporary erosion and pollution control measures must be used (1) to correct conditions that develop during construction that were not foreseen during the design stage; (2) where needed prior to installing permanent control features; or (3) to temporarily control erosion that develops during normal construction practices, but is not associated with permanent control features on the Project.
- C. Where erosion is likely to be a problem, clearing and grubbing operations should be scheduled and performed so that grading operations and permanent erosion control features can follow immediately thereafter if the Project conditions permit; otherwise, temporary erosion control measures may be required between successive construction stages.
- D. The Commissioner will limit the area of clearing and grubbing, excavation, borrow, and embankment operations in progress, commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent control measures current in accordance with the accepted schedule. Should seasonal limitations make such coordination unrealistic, temporary erosion control measures must be taken immediately to the extent feasible and justified.
- E. In the event that temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled or are ordered by the Commissioner, such work must be performed by the Contractor at his/her own expense.
- F. The Commissioner may increase or decrease the area of erodible earth material to be exposed at one time as determined by analysis of Project conditions.
- G. The erosion control features installed by the Contractor must be maintained by the Contractor during the construction period to the satisfaction of the Commissioner.

- H. Whenever construction equipment must cross watercourses at frequent intervals, temporary structures must be provided.
- I. Pollutants such as fuels, lubricants, bitumen, raw sewage, wash water from concrete mixing operations, and other harmful materials must not be discharged into or near rivers, streams, and impoundments or into natural or manmade channels leading thereto. Contractor must dispose all materials properly at an approved location and according to the local regulations.

3.18 OPERATION AND MAINTENANCE

- A. All installed erosion control features must, at a minimum, be inspected at least once every 7 days and within 24 hours of a storm event that produces 0.5 inches of rain or more during a 24-hour period, in accordance with the NPDES permit.
- B. Removal. Unless incorporated into the permanent stormwater management system, all erosion control features must be removed and properly disposed of once final grading and stabilization have been completed, or at the direction of the Commissioner.
- C. Surplus or waste material. Surplus or waste material resulting from the riprap operations must be disposed of by the Contractor at his own expense.
- D. The Contractor must be solely responsible for the maintenance of all soil erosion devices installed by the Contractor. Maintenance must be completed as soon as possible with consideration to site conditions.
- E. For each specific Erosion and Sediment control measure maintenance and inspection, refer to the Illinois Urban Manual Standard practice.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Temporary erosion and pollution control work includes all labor and materials for installation, maintenance, and removal of each erosion control item. Temporary erosion and pollution control work required which is not attributed to the Contractor's negligence, carelessness, or failure to install permanent controls must be performed as scheduled or ordered by the Commissioner. Completed and accepted work will be measured as follows:
 1. Culvert Inlet Protection – Stone: This work must include furnishing, installing, placing, maintaining and removed Culvert Inlet Protection – Stone. This will be measured for payment per cubic yard.
 2. Rock Check Dam – Course Aggregate: This work must include furnishing, installing, placing, maintaining and removing rock check dam – course aggregate. This will be measured for payment per cubic yard.
 3. Rip Rap for Erosion Control: This work must include furnishing, placing, maintaining and removing riprap for erosion control and will be measured for payment in square yards in place, for the gradation specified. Riprap

RR3 and Riprap RR4 must be used in erosion control measures unless otherwise approved by the Commissioner.

4. Silt Fence: This work must include furnishing, installing, maintaining and removing Silt Fence and will be measured for payment in linear feet in place.
5. Inlet and Pipe Protection: This work must include furnishing, installing, maintaining and removing Inlet and Pipe Protection barriers and will be measured for payment per each in place of the type specified.
6. Sediment Logs: This work must include furnishing, placing, maintaining and removing Sediment Logs and will be measured for payment as each. Each Sediment Log barrier must cross the entire ditch or channel and will not exceed 25 feet in length.
7. Polymer and Floc Logs: This work must include furnishing, placing, maintaining and removing PAM to any disturbed areas shown in the Plans and measured for payment in pounds or per each, respectively.
8. Erosion Control Blanket (double net). This work must include furnishing, installing and maintaining Erosion Control Blanket and will be measured for payment in square yards in place, for the type specified.
9. Sediment Containment Filter Bags: This work must include furnishing, bedding, maintaining, and disposing of Sediment Containment Filter bag and will be measured for payment per each, for the size specified.
10. Temporary Seeding and Mulching: This work must include furnishing, installing, and maintaining seed and mulch for erosion control and will be measured for payment per acre installed for the seed mix and mulch specified.
11. Sediment Traps, Temporary Ditches, and Erosion Control Berms: Excavation required for construction of Temporary Sediment Traps, Temporary Ditches, and Erosion Control Berms will not be measured for payment, but will be considered included in the total erosion control work. Excavation to remove accumulated sediments in Sediment Traps and Temporary Ditches will not be paid for separately but will be considered included in maintenance efforts.
12. Pumping: Pumping water from excavated trenches or other areas will be considered included in the work item to which it pertains and will not be paid for separately.
13. Geotextile Fabric: Geotextile fabric required to construct erosion control items will not be paid for separately but will be considered included in the appropriate coarse aggregate or riprap pay items.
14. Stabilized Construction Entrance: This work must include furnishing, installing, maintaining, and removing Stabilized Construction Entrance as shown on Plans and will be measured for payment in square yards in place.

15. Temporary Concrete Washout Facilities: Construction, maintenance, and removal of temporary concrete washout facilities will not be measured for payment; but will be considered included in the Contract. No separate payment will be made for temporary concrete washout facilities.
 16. Sump Pit: Construction, maintenance, and removal of temporary Dewatering Sumps and Sump Pits will not be measured for payment, but will be considered included in the Contract. No separate payment will be made for Dewatering Sumps and Sump Pits.
 17. Stabilization and erosion control of borrow sites will not be measured separately for payment but will be considered included and incidental to excavation work or the overall Project.
- B. Control work performed for protection of construction areas outside the construction limits, such as borrow and waste areas, haul roads, equipment and material storage sites, and temporary plant sites, will not be measured and paid for directly but will be considered as a subsidiary obligation of the Contractor with costs included in the Contract prices bid for the items to which they apply. Routine maintenance of soil erosion control measures will not be paid for separately but must be considered included in the Contract pay items to which they apply. Soil erosion items damaged by Contractor must be immediately replaced at no additional cost to the Contract.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Accepted quantities of temporary water pollution, soil erosion, and sediment control work ordered by the Commissioner and measured as provided in paragraph 4.01 will be paid for under:
- B. Payment will be made under:

| ITEM NO. | DESCRIPTION | UOM |
|------------|-------------------------|-------|
| P-156-5.01 | INLET PROTECTION | EACH |
| P-156-5.02 | EROSION CONTROL BLANKET | SQ YD |

END OF ITEM P-156

SITE DEMOLITION
SECTION X-100

PART 1 DESCRIPTION

1.01 GENERAL

- A. This Section includes all the work required to demolish and remove existing PCC booth island, concrete barrier and base, guardrail, Booth #41, storm sewer structures, and pavement markings as indicated in the drawings. Structures include, but are not limited to, existing manholes, inlets, catch basins, pipes, culverts, and conduits associated with utilities, fences, light poles, and other items in the construction area.
- B. Contractor must conform to the Building Code of the City of Chicago for Demolition of Structures, safety of adjacent structures and dust control.
- C. Contractor must notify affected utility companies before starting work and comply with their requirements for protection and or termination of facilities. Disconnection of electric service to fence gates must be coordinated with the Commissioner.
- D. All equipment to be used demolition on the project must comply with the height restrictions of the FAA 7460 permit.
- E. Blasting will not be permitted.

1.02 RELATED WORK

- A. As specified in the following sections:
 - 1. Section 01524 - Construction Waste Management
 - 2. Section 01525 - Disposal of Clean Construction or Demolition Debris (CCDD) and Uncontaminated Soils
 - 3. Section 02220A - Removal of Existing Structures
 - 4. Section 02710 - Dust Control

PART 2 MATERIALS

2.01 GRANULAR BACKFILL

- A. Granular backfill must conform to Section 02316-Trench Backfill.

PART 3 CONSTRUCTION METHODS

3.01 DEMOLITION REQUIREMENTS

A. Contractor must:

1. Conduct demolition operations to minimize interference with adjacent structures, utilities or appurtenances.
2. Cease operations immediately if adjacent structures appear in danger and notify the Commissioner. Do not resume operations until directed.
3. See Specification 02710, Dust Control, for dust control requirements, and Specification 01524, Construction Waste Management, for disposal requirements of non-hazardous construction debris and demolition waste.
4. Stand Parking Booth #41 must be removed, salvaged and return to owner as shown on the drawings. The Contractor must protect in-place all existing booth infrastructure to remain, for the future connection and installation of the relocated automated gate.

B. Existing Concrete Structures Removal:

1. Method of removal. Equipment and methods used for removing existing concrete structures must be such as to prevent cracking, shattering or spalling of the concrete remaining in place. Breaking concrete by means of a ball breaker or a gravity drop hammer will not be permitted.
2. Partial removal of structures. Where portions of existing structures are to remain in service, portions to be removed must be removed in such a manner as to leave the structure undamaged and in proper condition for the use contemplated. Any damage to the portions remaining in service must be repaired by the Contractor at its own expense. Old concrete must be carefully removed to the lines designated unless otherwise directed by the Commissioner. Prior to concrete removal, a saw cut of approximately ¾-inch deep must be made along all boundaries of full-depth removal areas adjacent to areas to remain in place. The concrete must then be removed with jackhammers not heavier than the nominal 45-pound class and suitable hand tools. Final removal at the designated lines of full-depth removal must be accomplished by 15-pound chipping hammers or hand tools, with particular care being exercised at the top of the wall to avoid breakage beyond the designated removal line. The surfaces presented as a result of this removal must be reasonably true and even, with sharp straight corners that will permit a neat and workmanlike joint with the new construction or be satisfactory for the purpose intended. Where existing bars are to extend from the remaining portions of existing structures into new construction, the concrete must be removed so as to leave the projecting bars clean and undamaged. All newly exposed concrete and exposed reinforcement bars to be incorporated into new concrete must be blast cleaned.

Upon removal of the falsework, the bottom surfaces of the new concrete, adjacent to remaining portions of existing concrete, must be

inspected with hammer sounding to detect loose and delaminated areas. Those areas must be removed as directed by the Commissioner. All removed areas 1 inch or deeper must be repaired with an approved method. This removal and repair must be completed to the satisfaction of the Commissioner.

3.02 EXISTING UTILITIES

- A. The Contractor must demolish and completely remove existing utilities where indicated. The limits of demolition must be approved by the Commissioner and the respective utility company prior to removal. The Contractor must cap and abandon utilities in place where indicated. Utilities must include, but not be limited to, hydrants, underground piping, concrete encased ductbanks, conduit and cables, mechanical and electrical systems, regardless of depth, indicated to be removed. The Contractor must coordinate with existing utility owners for termination of services if lines are active and for cut-off and sealing or capping (ComEd, SBC, Peoples Gas, etc).

3.03 CLOSING ABANDONED UNDERGROUND UTILITIES

- A. The Contractor must permanently close open ends of abandoned underground utilities indicated to remain with the following materials to withstand backfill pressures which may result after closing.
 - 1. Close open ends of conduit and pipe with caps, plugs or other suitable method for the type and size of material as acceptable to the Commissioner. Wooden caps or plugs are not acceptable.
 - 2. Close open ends of concrete and masonry utilities up to 2-foot diameter with concrete bulkheads not less than 8 inches thick, constructed to completely close the openings.
 - 3. Submit details for closure of concrete and masonry utilities larger than 2-foot diameter to the Commissioner for review.

3.04 REMOVAL OF UNFORESEEN MATERIAL

- A. The directed removal or demolition of unforeseen material, including, but not limited to foundations, former basements, existing debris piles, and underground structures, which require removal or demolition to at least two (2) feet below the proposed excavation grades or more during construction of the proposed improvements of the Contract Documents will be paid as an allowance as directed by the Commissioner. Such unforeseen removals are not indicated in the drawings. Items identified on the drawings for removal will not constitute unforeseen materials and must not be paid for separately under this item but will be incidental to the contract.

PART 4 METHOD OF MEASUREMENT

4.01 MEASUREMENT

- A. Remove PCC Booth Island will be measured per square feet of concrete island removed.
- B. Remove Concrete Barrier and Base; and Removed Guardrail will be measured per foot.
- C. Remove Booth #41, Salvage and Return to Owner will be measured per Lump Sum. No separate measurement will be made for protection of the existing booth infrastructure to remain, for the future connection.
- D. Remove Storm Sewer Structures will be measured per EACH.
- E. Remove Pavement Markings will be measured per Square Foot.
- F. Remove Curb and Gutter will be measured per Foot.

PART 5 BASIS OF PAYMENT

5.01 PAYMENT

- A. Payment for Remove PCC Booth Island will be made at the contract unit price per square feet of concrete island removed. Such payment will be full compensation for excavation, removal and disposal or other material where indicated on the drawings, backfill, compaction, labor materials, tools and incidentals necessary to complete these items. Cutting and plugging of pipe to remain will be paid for separately.
- B. Payment for Remove Concrete Barrier and Base; and Removed Guardrail will be paid for at the contract unit price per foot. Such payment will be full compensation for all excavation, backfill, compaction, demolition, removal and disposal of material, labor, materials, tools and incidentals necessary to complete this item.
- C. Payment for Remove Booth #41, Salvage and Return to Owner will be made at the contract unit price per Lump Sum. Such payment will be full compensation for removal, salvage and transporting of booth to owner, which shall also include all labor, materials, tools and incidentals necessary to complete this item.
- D. Payment for Remove Storm Sewer Structures will be paid for at the contract unit price per Each. Such payment will be full compensation for all excavation, backfill, compaction, demolition, removal and disposal of material, labor, materials, tools and incidentals necessary to complete this item.
- E. Payment for Remove Pavement Markings will be paid for at the contract unit price per Square Foot. Such payment will be full compensation for removal

and disposal of material, labor, materials, tools and incidentals necessary to complete this item.

- F. Payment for Remove Curb and Gutter will be paid for at the contract unit price per Foot. Such payment will be full compensation for removal and disposal of material, labor, materials, tools and incidentals necessary to complete this item.
- G. Payment will be made under:

| PAY ITEM NO. | DESCRIPTION | UOM |
|--------------|---|-------|
| X-100-5.01 | REMOVE PCC BOOTH ISLAND | SQ FT |
| X-100-5.02 | REMOVE CONCRETE BARRIER AND BASE | FOOT |
| X-100-5.03 | REMOVE GUARDRAIL | FOOT |
| X-100-5.04 | REMOVE BOOTH #41, SALVAGE AND RETURN TO OWNER | L SUM |
| X-100-5.05 | REMOVE STORM SEWER STRUCTURE | EACH |
| X-100-5.06 | REMOVE PAVEMENT MARKINGS | SQ FT |
| X-100-5.07 | REMOVE CURB AND GUTTER | FOOT |

END OF SECTION X-100

CHICAGO - O'HARE INTERNATIONAL AIRPORT

CITY OF CHICAGO
RAHM EMANUEL
MAYOR

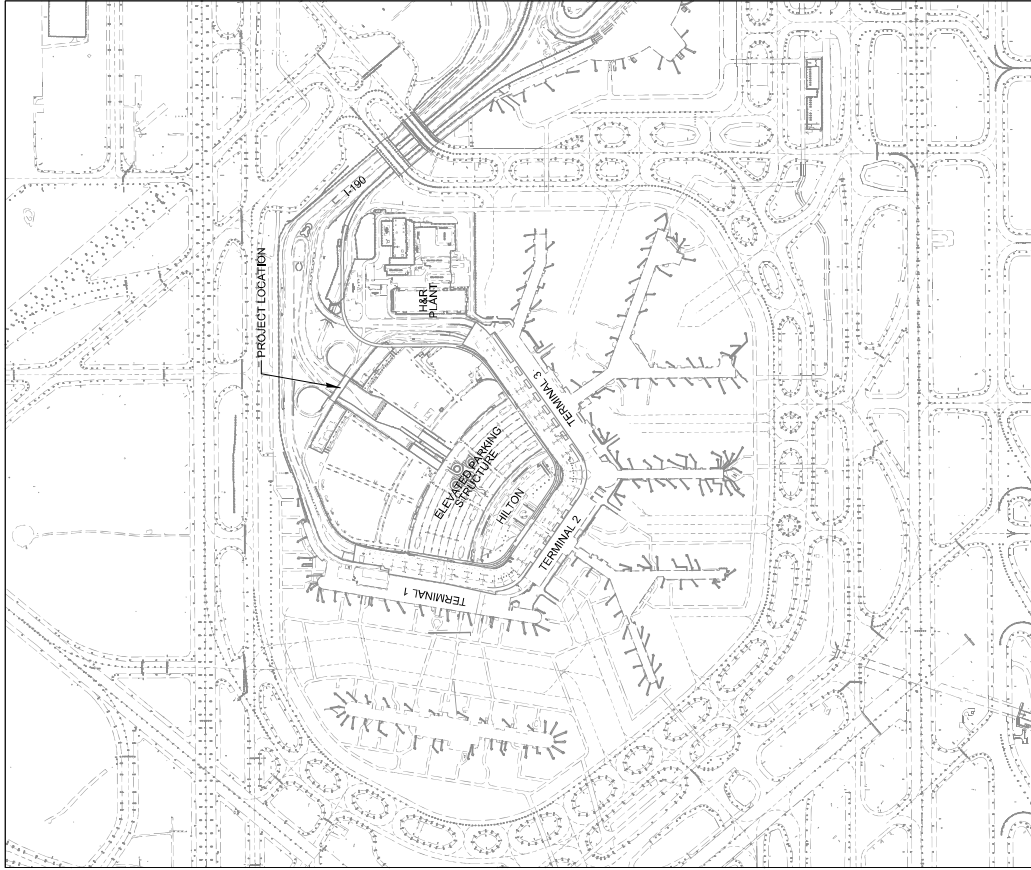


CHICAGO DEPARTMENT OF AVIATION
JAMIE L. RHEE
COMMISSIONER

ISSUED BY:
DEPARTMENT OF PROCUREMENT SERVICES
SHANNON E. ANDREWS, CHIEF PROCUREMENT OFFICER

O'HARE INTERNATIONAL AIRPORT RECIRCULATION BRIDGE REPLACEMENT

SPECIFICATION NO.: 800480
PROJECT NO.: H3073.18-00



LOCATION MAP

ISSUED FOR BID
FEBRUARY 21, 2019



CHICAGO DEPARTMENT OF AVIATION
OHARE INTERNATIONAL AIRPORT
CITY OF CHICAGO
 PACKAGE MANAGEMENT DIVISION
 HANOVER MANUEL
 JAMIE L. FRIE
 CONSULTANT

EPSTEIN

600 W. FULTON
 CHICAGO, IL 60641
 T: 312.464.8100 E: 312.558.1217

EPSTEIN

JOSEPH ROMANO, ILLINOIS P.E. 062-062662 DATE: 02/21/2019
 EXPIRES 11-30-2019

APPLIES TO DRAWINGS:
 E 01 001, E 01 002, E 01 003, E 02 001, E 03 001,
 E 06 001, E 07 001, E 07 002, E 07 003, E 07 004,
 E 07 005

ABNA

STEPHEN ALSBURY, ILLINOIS S.E. 081-005261 DATE: 02/21/2019
 EXPIRES 11-30-2020

APPLIES TO DRAWINGS:
 S 01 023, S 01 024, S 01 025, S 01 026, S 02 001,
 S 02 002, S 02 003, S 02 004

EPSTEIN

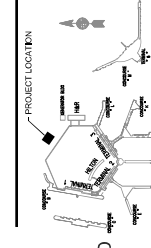
TIMOTHY GALL, ILLINOIS S.E. 081-006644 DATE: 02/21/2019
 EXPIRES 11-30-2020

APPLIES TO DRAWINGS:
 S 01 001, S 01 002, S 01 003, S 01 004, S 01 005,
 S 01 006, S 01 007, S 01 008, S 01 009, S 01 010,
 S 01 011, S 01 012, S 01 013, S 01 014, S 01 015,
 S 01 016, S 01 017, S 01 018, S 01 019, S 01 020,
 S 01 021, S 01 022, S 01 027, S 01 028, S 01 029,
 S 01 030, S 01 031

EPSTEIN

VICTOR M. NIGUEZ, ILLINOIS P.E. 062-064643 DATE: 02/21/2019
 EXPIRES 11-30-2019

APPLIES TO DRAWINGS:
 G 01 001, G 01 002, G 01 003, G 01 004, G 01 005,
 G 01 006, G 01 007, G 01 008, G 01 009, G 01 020,
 G 01 021, G 01 022, G 01 023, G 01 024, G 01 025,
 G 01 026, G 01 027, G 01 028, G 01 029, G 01 030,
 G 01 031, G 01 032, G 01 033, G 01 034, G 01 035,
 G 01 036, G 01 037, G 01 038, G 01 039, G 01 040,
 G 01 041, G 01 042, G 01 043, C 02 001, C 02 002,
 C 02 003, C 02 004, C 02 005, C 02 006, C 02 007,
 C 05 001, C 05 002, C 06 001, C 06 002, C 06 003,
 C 06 004, C 06 005, C 07 001, C 07 002, C 07 003,
 C 07 004, C 07 005, C 07 006, C 07 007



APPROVED AS WORKING PLAN
 EPI

| REV | DATE | DESCRIPTION |
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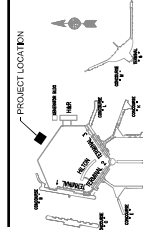
RECURCULATION
 BRIDGE REPLACEMENT

SHEET TITLE:
PROFESSIONAL SEALS

DESIGNED: VI DRAWN: DR CHECKED: VI

PROJECT NO.: H3073.15-00
 DATE: 02/21/19

SHEET NO. **G 01 002** REVIEWER



APPROVED AS WORKING PLAN
REV.

REINFORCEMENT
BRIDGE REPLACEMENT

SHEET TITLE:
INDEX OF SHEETS

DESIGNED: CS DRAWN: CS
CHECKED: VI

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO. G 01 003
REVISION

| NO. | SHEET NAME | ISSUED FOR BID | TOTAL |
|------------------------|---|----------------|-------|
| 01-GENERAL | | | |
| G 01.001 | COVER SHEET | • | 1 |
| G 01.002 | PROFESSIONAL SEALS | • | 1 |
| G 01.003 | INDEX OF SHEETS | • | 1 |
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| G 01.005 | GENERAL NOTES (2 OF 4) | • | 1 |
| G 01.006 | GENERAL NOTES (3 OF 4) | • | 1 |
| G 01.007 | GENERAL NOTES (4 OF 4) | • | 1 |
| G 01.008 | ABBREVIATIONS | • | 1 |
| G 01.009 | LEGEND AND SYMBOLS | • | 1 |
| G 01.010 | OHARE SURVEY CONTROL POINTS, MONUMENTS, AND BENCHMARKS | • | 1 |
| G 01.011 | OHARE SURVEY CONTROL POINTS, MONUMENTS, AND BENCHMARKS | • | 1 |
| G 01.012 | OHARE SURVEY CONTROL POINTS, MONUMENTS, AND BENCHMARKS | • | 1 |
| G 01.013 | THRU G 01.019 NOT USED | | |
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| G 01.021 | PHASING GENERAL NOTES, MILESTONES, AND RESTRICTIONS | • | 1 |
| G 01.022 | PROJECT LOCATION PLAN AND CONTRACTOR ACCESS ROUTE | • | 1 |
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| G 01.024 | CONSTRUCTION PHASING PHASE 1 WORK AREA A-1 | • | 1 |
| G 01.025 | CONSTRUCTION PHASING PHASE 1 WORK AREA A-2 | • | 1 |
| G 01.026 | CONSTRUCTION PHASING PHASE 2 WORK AREA B-3 | • | 1 |
| G 01.027 | CONSTRUCTION PHASING PHASE 2 WORK AREA B-1 | • | 1 |
| G 01.028 | CONSTRUCTION PHASING PHASE 2 WORK AREA B-2 | • | 1 |
| G 01.029 | CONSTRUCTION PHASING PHASE 2 WORK AREA B-2 | • | 1 |
| G 01.030 | MAINTENANCE OF TRAFFIC GENERAL NOTES | • | 1 |
| G 01.031 | PHASE 1 CONSTRUCTION SECTIONS STAGES I-III | • | 1 |
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| G 01.033 | MAINTENANCE OF TRAFFIC STAGE I, WORK AREA A-3 | • | 1 |
| G 01.034 | MAINTENANCE OF TRAFFIC STAGE II, WORK AREA A-1 | • | 1 |
| G 01.035 | MAINTENANCE OF TRAFFIC STAGE III, WORK AREA A-2 | • | 1 |
| G 01.036 | MAINTENANCE OF TRAFFIC STAGE IV, WORK AREA B-3 | • | 1 |
| G 01.037 | MAINTENANCE OF TRAFFIC STAGE V, WORK AREA B-1 | • | 1 |
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| G 01.039 | MAINTENANCE OF TRAFFIC STAGE VI, COMPLETION | • | 1 |
| G 01.040 | MAINTENANCE OF TRAFFIC ADVANCED SIGNAGE PLAN | • | 1 |
| G 01.041 | TEMPORARY PAVEMENT GRADING AND PAVING PLAN | • | 1 |
| G 01.042 | TRAFFIC CONTROL DEVICES AND STANDARDS | • | 1 |
| G 01.043 | TRAFFIC CONTROL DEVICES AND STANDARDS | • | 1 |
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| C 02.002 | DEMOLITION PLAN | • | 1 |
| C 03.001 | GRADING, PAVING, AND RESTORATION PLAN | • | 1 |
| C 03.002 | GRADING, PAVING, AND RESTORATION PLAN | • | 1 |
| C 03.003 | PLAN AND PROFILE | • | 1 |
| C 04.001 | DRAINAGE PLAN LOWER LEVEL | • | 1 |
| C 05.001 | PAVEMENT MARKING PLAN | • | 1 |
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| C 06.001 | EROSION AND SEDIMENT CONTROL PLAN GENERAL CONDITIONS | • | 1 |
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| C 06.003 | SWPPP - CERTIFICATION, LEGEND AND SCHEDULE | • | 1 |
| C 06.004 | EROSION AND SEDIMENT CONTROL PLAN | • | 1 |
| C 06.005 | EROSION AND SEDIMENT CONTROL DETAILS | • | 1 |
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| C 07.003 | ROADWAY DETAILS | • | 1 |
| C 07.004 | ROADWAY DETAILS | • | 1 |
| C 07.005 | DETAILS | • | 1 |
| C 07.006 | DETAILS | • | 1 |
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| E 07.002 | ELECTRICAL DETAILS | • | 1 |
| E 07.003 | ELECTRICAL DETAILS | • | 1 |
| E 07.004 | ELECTRICAL DETAILS | • | 1 |
| E 07.005 | ELECTRICAL DETAILS | • | 1 |
| E 07.006 | ELECTRICAL DETAILS | • | 1 |
| 05-STRUCTURAL | | | |
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| S 01.002 | GENERAL DATA | • | 1 |
| S 01.003 | STAGE CONSTRUCTION DETAILS | • | 1 |
| S 01.004 | TEMPORARY CONCRETE BARRIER | • | 1 |
| S 01.005 | TOP OF SLAB ELEVATIONS 1 | • | 1 |
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| S 01.007 | TOP OF SLAB ELEVATIONS 3 | • | 1 |
| S 01.008 | TOP OF APPROACH SLAB ELEVATIONS | • | 1 |
| S 01.009 | SUPERSTRUCTURE PLAN AND SECTION | • | 1 |
| S 01.010 | SUPERSTRUCTURE DETAILS 1 | • | 1 |
| S 01.011 | SUPERSTRUCTURE DETAILS 2 | • | 1 |
| S 01.012 | BRIDGE APPROACH SLAB PLAN AND DETAILS | • | 1 |
| S 01.013 | PREFORMED JOINT STRIP SEAL | • | 1 |
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| S 01.015 | DRAINAGE SCUPPER, D5-12 | • | 1 |
| S 01.016 | ALUMINUM RAILING, TYPE I | • | 1 |
| S 01.017 | FRAMING PLAN | • | 1 |
| S 01.018 | BEAM ELEVATION | • | 1 |
| S 01.019 | STEEL DETAILS 1 | • | 1 |
| S 01.020 | STEEL DETAILS 2 | • | 1 |
| S 01.021 | NORTH ABUTMENT DETAILS | • | 1 |
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| S 01.023 | PIER 102 & 103 WORK AREA A CONSTRUCTION | • | 1 |
| S 01.024 | PIER 102 & 103 WORK AREA B CONSTRUCTION | • | 1 |
| S 01.025 | PIER 102 PLAN AND ELEVATION | • | 1 |
| S 01.026 | PIER 103 PLAN AND ELEVATION | • | 1 |
| S 01.027 | BAR SPICER ASSEMBLY DETAILS | • | 1 |
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| S 01.029 | SOIL BORING LOGS 1 | • | 1 |
| S 01.030 | SOIL BORING LOGS 2 | • | 1 |
| S 01.031 | SOIL BORING LOGS 3 | • | 1 |

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GENERAL REQUIREMENTS:

- 1. APPLICABLE ABBREVIATIONS AND DEFINITIONS:
AC - ADVISORY CIRCULAR
ACM - AIRPORT CERTIFICATION MANUAL
AOA - AIR OPERATIONS AREA
ARFF - AIRPORT RESCUE AND FIRE FIGHTING
CDA - CHICAGO DEPARTMENT OF AVIATION
CFR - CODE OF FEDERAL REGULATIONS
CSD - CONSTRUCTION SETBACK DISTANCE
CSPP - CONSTRUCTION SAFETY AND PHASING PLAN
CST - CENTRAL STANDARD TIME
FAA - FEDERAL AVIATION ADMINISTRATION
FAR - FEDERAL AVIATION REGULATION
FOO - FOREIGN OBJECT DEBRIS/FOREIGN OBJECT DAMAGE
ILS - INSTRUMENT LANDING SYSTEM
ORD - O'HARE INTERNATIONAL AIRPORT
ROFA - RUNWAY OBJECT FREE AREA (400 FEET FROM RUNWAY CENTERLINE; 1,000 FEET BEHIND RUNWAY END, OR AS NOTED IN THE PLANS)
RSA - RUNWAY SAFETY AREA (250 FEET FROM RUNWAY CENTERLINE; 1,000 FEET BEHIND RUNWAY END, OR AS NOTED IN THE PLANS)
SPD - SAFETY PLAN COMPLIANCE DOCUMENT
S.T.O.P. - SHORT TERM OPERATIONAL PHASING
TOFA - TAXIWAY OBJECT FREE AREA (160 FEET FROM TAXIWAY CENTERLINE FOR ADG V; 193 FEET FROM TAXIWAY CENTERLINE FOR ADG W)
TSA - TAXIWAY SAFETY AREA (107 FEET FROM TAXIWAY CENTERLINE FOR ADG V; 131 FEET FROM TAXIWAY CENTERLINE FOR ADG W)
THE PROJECT MUST BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS AND ANY RULES, REGULATIONS, STANDARDS OR SPECIFICATIONS REFERENCED THEREIN. THE PROJECT IS SUBJECT TO INSPECTION BY REPRESENTATIVES OF THE FEDERAL AVIATION ADMINISTRATION (FAA), AND OTHER GOVERNING AGENCIES.
THE CONTRACTOR MUST COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY REGULATIONS AS WELL AS THOSE SPECIFIED IN THE CONTRACT DRAWINGS AND SPECIFICATIONS.
THE CONTRACTOR MUST ADHERE TO ALL AIRPORT SECURITY REQUIREMENTS AS SPECIFIED IN ARTICLE XV OF THE PART 2 - GENERAL CONDITIONS SPECIFICATIONS.
THE CONTRACTOR IS ADVISED THAT CERTAIN RULES AND RESTRICTIONS, AS CONTAINED IN THE FAA ADVISORY CIRCULAR 150/5300-13 (CURRENT EDITION) OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION, FAA AC 150/5300-13 (CURRENT EDITION) AIRPORT DESIGN, AIRPORT CERTIFICATION MANUAL, AND FAR PART 139 AND AUGMENTED BY THESE REQUIREMENTS, MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. THE CONTRACTOR MUST MAINTAIN ALL AREAS OF WORK IN COMPLIANCE WITH THESE REQUIREMENTS AT ALL TIMES. THIS EFFORT IS INCIDENTAL TO THE CONTRACT. PAYMENT WILL BE WITHHELD FOR NON-COMPLIANCE.
PROCEDURES AND CONDITIONS ASSOCIATED WITH CONSTRUCTION ACTIVITIES OFTEN AFFECT AIRCRAFT OPERATIONS AND CAN JEOPARDIZE OPERATIONAL SAFETY. CAREFUL PLANNING, SCHEDULING, AND COORDINATION OF CONSTRUCTION ACTIVITIES CAN MINIMIZE DISRUPTION OF NORMAL AIRCRAFT OPERATIONS AND AVOID SITUATIONS THAT REQUIRE THE CLOSURE OF PORTIONS OF THE AIRPORT. THE CONTRACTOR SHALL COORDINATE WITH THE AIRPORT IMPROVEMENT PROGRAM (AIP) OR THE PASSENGER FACILITY CHARGE (PFC) PROGRAM OR LOCATED ON AN AIRPORT CERTIFIED UNDER PART 139 IS REQUIRED TO HAVE A CONSTRUCTION SAFETY AND PHASING PLAN (CSPP). CDA OR ITS SUCCESSORS ARE RESERVING THE RIGHT TO REVIEW AND APPROVE THE SUBMITTING THE PROJECT CSPP IN ACCORDANCE WITH FAR AC 150/5300-13 (CURRENT EDITION).
IN SUPPORT OF THE CSPP, THE SUCCESSFUL CONTRACTOR IS REQUIRED TO PREPARE AND SUBMIT TO CDA A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) DETAILING HOW THE CONTRACTOR WILL ADDRESS THE CONCERNS OF THE CSPP. THE CONTRACTOR SHALL DETERMINE ALL SAFETY PLAN DETAILS (FOR EXAMPLE: SPECIFIC HAZARD EQUIPMENT AND LIGHTING, CONTRACTOR'S POINTS OF CONTACT, CONSTRUCTION EQUIPMENT HEIGHTS, ETC.) DURING THE DEVELOPMENT OF THE CSPP. THE SUCCESSFUL CONTRACTOR MUST SUBMIT SUCH THAT THE SPCD IS FOR REVIEW AND APPROVAL BY CDA PRIOR TO ISSUANCE OF THE NOTICE-TO-PROCEED. THE SPCD IS A SUBSET OF THE CSPP.
ANY CONSTRUCTION WORK ON THE AIRFIELD, CONTRACTOR MUST BE AWARE THAT IT WILL REQUIRE THE REVIEW AND APPROVAL BY THE FAA. THIS REVIEW CAN TAKE UP TO 30 DAYS.
CHICAGO O'HARE INTERNATIONAL AIRPORT (ORD) WILL BE IN OPERATION WHILE THE CONSTRUCTION OF THIS CONTRACT IS IN PROGRESS. THE CONTRACTOR SHALL BE AWARE THAT THE WORK IS AN ESSENTIAL FEATURE OF THIS CONTRACT AND THE COMPLETION OF THE PROJECT AND/OR IMPEDMENT TO THE AIRPORT TRAFFIC AND THE GENERAL OPERATION OF THE AIRPORT. ALL EXISTING UTILITIES SERVING THE AIRPORT MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL REMOVE UNDER THIS OR A SEPARATE CONTRACT. THE COMPLETION OF THE WORK REMOVED UNDER THIS CONTRACT IN USE AS SOON AS POSSIBLE AND/OR UPON COMPLETION.

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STANDARD NOTES ON GENERAL REQUIREMENTS

- 10. ESTABLISHING THE SCHEDULE FOR THIS CONTRACT, THE CONTRACTOR MUST CONSIDER THE SEVERAL SCHEDULES AND TIME CRITICAL AREAS FOR THE PROJECT AND TO THE PHASING OF THE WORK. DUE TO WEATHER CONDITIONS WHICH MAY IMPROVE TO THE PROGRESS OF THE WORK, EXCEPT AS ALLOWED IN ARTICLE VII-B.4. OF PART 2 (GENERAL CONDITIONS) OF THE SPECIFICATIONS, THE CONTRACTOR MAY WORK SEVEN (7) DAYS A WEEK, AS REQUIRED IN ORDER TO COMPLETE THE ENTIRE PROJECT AS SPECIFIED HEREIN.
11. CONTRACTOR MUST BE AWARE OF THE FAA HOLIDAY MORATORIUM DATES DURING THE CONSTRUCTION PERIOD. THE CONTRACTOR IS ADVISED THAT CONSTRUCTION OF THE AREAS DESIGNATED AS RESTRICTED FOR ANY PHASE OF THE PROJECT DURING THE MORATORIUM PERIOD THAT: (1) INTERFACE WITH POWER AND/OR LIVE FAA FIBER, (2) TAKE PLACE INSIDE COMMISSIONED FAA FACILITIES, OR (3) ARE EXECUTED WITHIN 50 FEET OF AN ACTIVE FAA FACILITY FOR LIVE FAA SERVICES INCLUDING FOTS MANHOLES AND MANHOLES NEAR OR NEAR FAA FACILITIES WILL BE ALLOWED AND FAA WAIVERS ARE NOT VALID.
A. THANKSGIVING MORATORIUM - TYPICALLY ABOUT 11 DAYS LATER WEEKS OF THANKSGIVING WORK SHALL BE STOPPED FOR ANY PHASE OF THE PROJECT DURING THE MORATORIUM PERIOD. THE CONTRACTOR MUST BE AWARE THAT THE MORATORIUM WILL VARY FROM YEAR TO YEAR. THE COMMISSIONER WILL PROVIDE NOTICE TO THE CONTRACTOR ON THESE DATES.
B. CHRISTMAS MORATORIUM - TYPICALLY ABOUT 20 DAYS FROM MID DECEMBER TO FIRST WEEK OF JANUARY. FOR EXAMPLE IN 2007, WORK STAND DOWN WAS FROM DECEMBER 14 6PM CST THRU JANUARY 2 2AM CST.
C. THE CDA ADOPTS THE SAME SHUTDOWN PERIODS AND HARD STAND MORATORiums AT BOTH THANKSGIVING AND CHRISTMAS PERIODS THAT IMPACT ALL PROJECTS, DEPENDING ON THE YEAR. THE COMMISSIONER WILL PROVIDE NOTICE TO THE CONTRACTOR ON THESE DATES.
12. UNDERGROUND NOTIFICATION CHECKLIST (THE BOOK) PRIOR TO COMMENCING ANY EXCAVATION WORK, THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO OBTAIN THE CHECKLIST (DIG BOOK) CAN BE CREATED AND FINALIZED. THE "DIG BOOK" IS A DOCUMENT THAT ENSURES ALL UPFRONT UTILITY INVESTIGATIONS PERFORMED; UTILITY UTILITIES ARE LOCATED AND PROPERLY MARKED, ETC. THE CHECKLIST MUST BE COMPLETELY EXECUTED PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION AND/OR UTILITY WORK WITHIN A SPECIFIC WORK AREA. THE CONTRACTOR SHALL ADVISE THE PROGRESS OF THE WORK TO CDA ON A DAILY BASIS. UPON APPROVAL BY THE PROGRESS TEAM, TAKE THE NECESSARY PRECAUTIONS TO OBTAIN THE CHECKLIST (DIG BOOK) FOR THE WEEKLY SHORT-TERM OPERATIONAL PHASING (S.T.O.P.) FOR APPROVAL AND AUTHORIZATION TO PROCEED WITH EXCAVATION ACTIVITIES. WORKING CLOSELY WITH THE CM, THE CONTRACTOR WILL PROVIDE THE PRIORITY AND REQUIRED DATES FOR THE S.T.O.P. MEETING. THE CM, WITH ASSISTANCE OF THE CONTRACTOR, WILL BE RESPONSIBLE FOR PREPARING THE "DIG BOOK" AND COMPLETING ALL NECESSARY INFORMATION AS DESIGNATED IN THE CHECKLIST. THE "DIG BOOKS" MUST BE APPROVED BY THE CM, THE CONTRACTOR SHALL BE AWARE THAT ALL CONTRACTOR'S AGENCIES CONCERNED, UNDERGROUND WORK CAN BEGIN AFTER THE APPROVED "DIG BOOKS" ARE DISTRIBUTED AND RECEIVED BY THE CONTRACTOR. THE CONTRACTOR MUST KEEP A COPY OF THE "DIG BOOK" AT THE SITE AT ALL TIMES SO THAT THE EMPLOYEES AND THE LOCATION OF EXISTING UTILITIES.
13. THE CONTRACTOR MUST COORDINATE WITH ALL OTHER CONTRACTORS DOING WORK ON OR ABOUT THE PROJECT SITE. TO THE MUTUAL BENEFIT OF ALL IN COMPLETING THEIR RESPECTIVE WORK.
14. CONSTRUCTION WORK ADJACENT TO OPERATIONAL RUNWAYS AND TAXIWAYS WILL BE SUBJECT TO THE FOLLOWING RESTRICTIONS:
A. THE CONTRACTOR MUST UTILIZE HIS MACHINERY AND EQUIPMENT SO THAT AIRCRAFT ROADS WILL NOT BE SUBJECT TO THE HAZARDS OF CONSTRUCTION OPERATIONS. MATERIALS AND EQUIPMENT WILL NOT BE PERMITTED TO BE PARKED OR STAGED ON ANY PAVEMENTS, VEHICLES AND MATERIALS ARE NOT PERMITTED TO BE PARKED OR STAGED WITHIN THE SAFETY AREA OF THE CLOSED PAVEMENTS. HOWEVER, IN THE EVENT OF LARGER PIECES OF CONSTRUCTION EQUIPMENT (SUCH AS LARGE EARTH MOVING EQUIPMENT) THAT MUST BE PARKED IN CLOSED PAVEMENTS PROVIDED, PRIOR TO APPROVAL IS RECEIVED FROM CDA OPERATIONS. ALL EQUIPMENT WILL BE REQUIRED TO HAVE REGULAR HIGHWAY A FRAME BARRICADES (ORD BARRICADES ARE NOT TO BE USED) PLACED AT THE FOUR CORNERS OF EACH PIECE OF EQUIPMENT AND A MINIMUM OF SIX (6) FEET SPACING BETWEEN EACH PIECE OF EQUIPMENT AND THE BARRICADES. THE CONTRACTOR MUST MAINTAIN CLEAR ACCESS TO THE AIR TRAFFIC CONTROL TOWER.
B. AT NO TIME WILL ANY CONSTRUCTION VEHICLE OR EQUIPMENT BE PARKED OR STAGED WITHIN OBJECT FREE AREAS (OFAS). CRITICAL FULL WIDTH DIMENSIONS OF OFAS ARE AS FOLLOWS:
ITEM ADG V ADG VI
RSA 500 FT. 500 FT.
ROFA 800 FT. 800 FT.
TSA 214 FT. 282 FT.
TOFA 320 FT. 386 FT.
CSD 96 FT. (FROM EDGE OF PAVEMENT) 108 FT. (FROM EDGE OF PAVEMENT)
15. THE CONTRACTOR IS ADVISED THAT THERE MAY BE ADVERSE IMPACTS TO THE INTEGRITY OF THE NAVAD SIGNALS REQUIRED FOR APPROACHES TO OPERATING RUNWAYS 4R-22L, 10C-28C, 10L-28R, AND 14R-32L CAUSED BY CONSTRUCTION OPERATIONS WHICH MAY NOT BE MITIGATED AS NECESSARY TO THE SATISFACTION OF THE COMMISSIONER AND THE MUTUAL BENEFIT OF THE CONTRACTOR AND THE AIRPORT. CONTRACTOR PERSONNEL AND EQUIPMENT MUST VACATE ALL APPROPRIATE NAVAD CRITICAL AREAS AND OPERATIONAL SURFACES WHEN SO DIRECTED BY THE COMMISSIONER.
16. IF THE COMMISSIONER SUSPENDS WORK, THE CONTRACTOR MUST REMOVE FROM THE PROJECT SITE, ALL EQUIPMENT, MACHINERY AND MATERIALS, ANY EQUIPMENT, MACHINERY AND MATERIALS ALLOWED TO REMAIN MUST BE BARRICADED AND LIGHTED AS REQUIRED BY THE CONTRACT SPECIFICATIONS. ALL BARRICADE LIGHTS WITHIN THE AOA MUST BE RED WITH 380 DEGREES VISIBILITY.
17. SOME OF THE WORK UNDER THIS CONTRACT IS IN RESTRICTED AREAS. THE CONTRACTOR SHALL BE AWARE THAT THE CONTRACTOR SHALL MAINTAIN THE CONTRACTOR'S VEHICLES UNDER ESCORT BY THE CITY OF CHICAGO. WITHIN THE CONTRACTOR'S VEHICLES, THE CONTRACTOR SHALL BE AWARE THAT ACCESS TO CERTAIN CONTRACT AREAS MAY BE LIMITED AND/OR REFUSED FOR LIMITED PERIODS OF TIME. THE CONTRACTOR MUST COOPERATE WITH AIRPORT OPERATIONS TO KEEP THE AIRPORT IN OPERATION. THE CONTRACTOR SHALL BE AWARE THAT VEHICLES IN RESTRICTED AREAS PER ARTICLE XV.B OF THE PART 2 - GENERAL CONDITIONS.
18. ALL TAXIWAY AND RUNWAY CLOSURES AND NAVIGATION AID IMPACTS MUST BE COORDINATED THROUGH THE REGULAR S.T.O.P. MEETINGS PRIOR TO THE START OF WORK ATTENDED BY THE CONTRACTOR AT S.T.O.P. MEETINGS MUST BE COORDINATED THROUGH THE R.E. AND S.T.O.P. MUST BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE THAT ARE USED OR CROSSED BY CONSTRUCTION VEHICLES ARE KEPT CLEAR OF FOD AT ALL TIMES FOR THE DURATION OF THE CONTRACT.
19. CONTRACTOR GENERATED DEBRIS, WASTE, AND LOOSE MATERIAL CAPABLE OF CAUSING DAMAGE TO AIRCRAFT MUST NOT BE LEFT ON ACTIVE MOVEMENT SAFETY OR CRITICAL AREAS. THE CONTRACTOR MUST REMOVE SUCH MATERIAL WITHIN THESE AREAS IMMEDIATELY AND CONTINUOUSLY DURING WORKING HOURS NOT COINCIDING WITH THE OPERATION OF THE CONTRACT.
20. THE CONTRACTOR MUST HAVE A SUFFICIENT NUMBER OF OPERATING VACUUM POWVER SWEEPERS TO MAINTAIN THE PAVED AREAS DURING THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL MAINTAIN THE PAVED AREAS WITHIN THE CONTRACTOR'S AREAS. SWEEPERS REQUIRED A MINIMUM OF ONE (1) SWEEPER PER LANDSIDE WORK IS REQUIRED AT ALL TIMES WHILE THE PROJECT IS IN PROGRESS. FOR THE DURATION OF THIS CONTRACT, ADDITIONAL SWEEPERS MAY BE REQUIRED AS DIRECTED BY THE COMMISSIONER. THE CONTRACTOR SHALL PROVIDE SWEEPERS AND OPERATORS WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE CONSIDERED INCLUDED IN THE OVERALL CONTRACT PRICE.

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CHICAGO DEPARTMENT OF AVIATION logo
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APPROVED AS WORKING PLAN
GENERAL NOTES (1 OF 4)
DESIGNED: VI DRAWING: DR CHECKED: VI
PROJECT NO.: H3073.1500
DATE: 02/22/19
SHEET NO.: G 01 004
REVISION



CHICAGO INTERNATIONAL AIRPORT
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STANDARD NOTES ON GENERAL REQUIREMENTS

22. THE CONTRACTOR MUST COMPLETE CLEAN UP AND RESTORATION OF THE ENTIRE PROJECT AREA INCLUDING STAGING AND STORAGE AREAS, AS APPROVED BY THE CITY OF CHICAGO. ALL EXCAVATIONS MUST BE PROTECTED BY A CHAIN LINK FENCE WITH A SIGNAGE TO RESTRICT ACCESS TO THE WORK AREA. THE WORK AREA SHALL BE IMMEDIATELY RESTORED TO ITS ORIGINAL CONDITION BY THE CONTRACTOR AT HIS OWN EXPENSE.
23. THE CONTRACTOR'S SUPERINTENDENT MUST BE ON THE CONSTRUCTION SITE AT ALL TIMES DURING THE WORKING HOURS WHILE THIS PROJECT IS IN PROGRESS. THE CONTRACTOR'S SUPERINTENDENT MUST BE THE DESIGNATED RESPONSIBLE PERSONNEL FOR A TWENTY-FOUR (24) HOUR BASE.
24. THE CONTRACTOR'S PROJECT MANAGER AND FIELD SUPERINTENDENT MUST ATTEND A MEETING WITH THE CITY OF CHICAGO AND THE CONTRACTOR'S PROJECT MANAGER MUST SUBMIT A TWO WEEK LOOK-AHEAD SCHEDULE, FROM THE CURRENT APPROVED CRITICAL PATH METHOD (CPM) SCHEDULE, AT THE MEETING.
25. THE CONTRACTOR MUST INVESTIGATE THE AVAILABILITY OF AN ADEQUATE SUPPLY OF SUITABLE WATER. MAKE ALL ARRANGEMENTS PERMITS FOR THE PURCHASE OF THE WATER, AND PROVIDE NECESSARY FACILITIES TO FURNISH WATER FOR USE DURING CONSTRUCTION, SOLELY AT THE CONTRACTOR'S EXPENSE, SUBJECT TO AVAILABILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, BENEFICIAL DITCH ETC. FOR USE IN THEIR CONSTRUCTION OPERATIONS, WITH THE APPROVAL OF THE COMMISSIONER.
26. THE CONTRACTOR MUST BE AWARE OF HEIGHT RESTRICTIONS ON THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL HEIGHT RESTRICTIONS. THE CONTRACTOR SHALL NOT PENETRATE THE PAR PART 77 IMAGINARY SURFACES OF THE AIRPORT WITHIN THE RUNWAY IN OPERATION, UNLESS SPECIFICALLY ALLOWED BY THE COMMISSIONER. IF THE CONTRACTOR IS PERMITTED TO PENETRATE THESE SURFACES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS, MAINTENANCE AND DURATION OF ACTIVITIES MUST BE COORDINATED.
27. ON BEHALF OF THE CONTRACTOR, THE CDA/CPM WILL SUBMIT FAA FORM 7460-1 TO THE FAA FOR APPROVAL. ANY CONTRACTOR MODIFICATIONS TO THE 7460-1 MUST OBTAIN FAA APPROVAL PRIOR TO BEGINNING CONSTRUCTION. DURATION FOR FAA APPROVAL OF MODIFICATIONS TO THE 7460-1 IS APPROXIMATELY 45 CALENDAR DAYS.
28. NO REQUIREMENTS OF THIS CONTRACT WITH RESPECT TO PRECAUTIONS REQUIRED OR OMITTED WILL BE DEEMED TO LIMIT OR IMPAIR ANY OBLIGATIONS ASSUMED BY THE CONTRACTOR UNDER OR IN CONNECTION WITH THIS CONTRACT, AND THE CONTRACTOR MUST AT ALL TIMES MAINTAIN ADEQUATE PROTECTION TO SAFEGUARD AIRCRAFT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, AS WELL AS ACCOMPISH SUCH END, WITHOUT INTERFERENCE TO AIRCRAFT, THE PUBLIC, OR MAINTENANCE AND OPERATION OF THE AIRPORT.
29. COMMUNICATION BETWEEN ALL PARTIES INVOLVED IN THE WORK IS OF THE UTMOST IMPORTANCE. THE CONTRACTOR THROUGH THE COMMISSIONER AND CDA AIRPORT OPERATIONS PERSONNEL MUST BE IN CONSTANT COMMUNICATION TO ENSURE SAFE OPERATIONS ON THE AOA. THE CONTRACTOR MUST NOTIFY THE COMMISSIONER TWENTY-FOUR (24) HOURS PRIOR TO REQUESTING THE CLOSING OF ANY AREA, SO THAT THE CONTRACTOR AND OPERATIONS PERSONNEL CAN BE NOTIFIED. THE CONTRACTOR SHALL ALLOWED TO COMMUNICATE WITH FAA AIR TRAFFIC PERSONNEL, EXISTING NAVIAD SIGNAL OPERATIONS, AND OTHER STAKEHOLDERS TO RESTRICT THE USE OF COMMUNICATION DEVICES. THERE WILL BE NO ADDITIONAL COMPENSATION TO THE CONTRACTOR DUE TO ANY RESTRICTIONS ON HISHER COMMUNICATION DEVICES.
30. OPEN TRENCHES OR EXCAVATIONS ARE NOT PERMITTED WITHIN THE RSA OR TSA WHILE THE RUNWAY IS OPENED. IF THE RUNWAY OR TAXIWAY MUST BE OPENED BEFORE EXCAVATIONS ARE BACK-FILLED, COVER THE EXCAVATIONS APPROPRIATELY; COVERING MUST BE DESIGNED AND CERTIFIED TO ALLOW THE SAFE OPERATION OF THE HEAVIEST AIRCRAFT OPERATING ON THE RUNWAY OR TAXIWAY ACROSS THE TRENCH WITHOUT DAMAGE TO THE AIRCRAFT.
31. OPEN TRENCHES AND EXCAVATIONS ARE PERMITTED WITHIN THE ROFA TO THE EDGE OF THE TAXIWAY OR RUNWAY. EXCAVATIONS WITHIN THE ROFA SHALL BE SPACED NO MORE THAN 10 FEET APART. BARRICADES IN THESE AREAS CANNOT EXCEED 18 INCHES IN HEIGHT (EXCLUDING LIGHTS AND FLAGS). ALL BARRICADES MUST HAVE RED OBSTRUCTION LIGHTS (NO FLAGS).

32. PROPER PLACEMENT AND OPERATION OF BARRICADES IS CRUCIAL TO THE SAFETY OF THIS PROJECT AND AIRCRAFT OPERATIONS. BARRICADES PROVIDE A DISTINCT POINT TO ALSO IDENTIFY TO CONSTRUCTION WORKERS THE LIMITS OF THE CONSTRUCTION PROJECT. BARRICADES MUST BE PLACED SUCH THAT AT LEAST ONE OPENING OF 15 FEET MINIMUM WIDTH IS PROVIDED FOR ARRF ACCESS. UNDER NO CIRCUMSTANCES ARE CONTRACTORS TO DRIVE PAST AN AOA BARRICADE LINE UNLESS UNDER AUTHORIZED CDA EGOVT.
33. THE EXACT LOCATION, TYPE, NUMBER AND SPACING OF ALL BARRICADES AND LIGHTS MUST BE DETERMINED AND AS APPROVED BY THE CDA AIRPORT OPERATIONS. WHERE REQUIRED, ALL BARRICADES AND LIGHTS MUST BE TURNED OVER TO THE COMMISSIONER IN GOOD WORKING CONDITION AND WITH NEW BATTERIES AND DELIVERED TO A LOCATION ON THE AIRPORT PROPERTY AT THE DIRECTION OF THE COMMISSIONER. UPON TRANSFER TO THE COMMISSIONER, ALL BARRICADES AND LIGHTS WILL NOT BE PAID FOR SEPARATELY BUT CONSIDERED INCLUDED IN THE OVERALL CONTRACT PRICE.
34. TO STANDARDIZE BARRICADE PLACEMENT, THE AOA V TOFA OF 180 FEET WILL BE USED, UNDER NO CIRCUMSTANCES LESS THAN 145 FEET (EFT/7 TAXILANE FORMULA WHERE THE 87.74 IS SPEED RESTRICTED TO 15 MPH OR LESS IN TAXI SPEED PER THE FAA REGULATIONS). THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A LETTER OF AGREEMENT (LOA) THAT WAS SHARED WITH THE OPERATIONS/AIR CARRIERS).
35. EXISTING GRADES WERE TAKEN FROM THE BEST AVAILABLE INFORMATION OR GUARANTEED, INFORMATION SHOWN CONCERNING FEATURES AND UTILITIES IS NOT GUARANTEED, INFORMATION SHOWN CONCERNING FEATURES AND UTILITIES IS NOT GUARANTEED, INFORMATION SHOWN CONCERNING FEATURES AND UTILITIES IS NOT GUARANTEED, INFORMATION SHOWN CONCERNING FEATURES AND UTILITIES IS NOT GUARANTEED. THE CONTRACTOR IS TO VERIFY THE FEATUES PRIOR TO CONSTRUCTION. EXISTING UTILITIES ARE TO BE MAINTAINED IN FACILITIES AND OBSTRUCTIONS ARE BASED UPON LOCATION RECORDS AND ARE SHOWN ON THE DRAWINGS STRICTLY AS AID TO THE CONTRACTOR, BUT MUST NOT BE CONSTRUED AS BEING ACCURATE, CORRECT, OR COMPLETE. ALL STRUCTURES ABOVE PROPERLY SUPPORTED AND MAINTAINED. THE CONTRACTOR IS TO MAKE ALL ARRANGEMENTS WITH THE COMMISSIONER FOR THE PROTECTION OR RELOCATION OF SUCH STRUCTURES. IF DAMAGED DURING CONSTRUCTION, THE CONTRACTOR MUST MAKE REPAIRS OR PAY FOR THE REPAIRS OF ANY STRUCTURE TO THE SATISFACTION OF THE COMMISSIONER. ADDITIONAL COMPENSATION WILL BE MADE FOR ANY SUCH INTERFERENCE OR OBSTRUCTION.
36. ALL ITEMS PROPOSED FOR DEMOLITION MUST BE MARKED BY THE CONTRACTOR FOR REVIEW BY THE COMMISSIONER. NO ITEM WILL BE DEMOLISHED UNTIL APPROVED BY THE COMMISSIONER.
37. THE CONTRACTOR MUST LAY OUT THE LOCATION OF ALL NEW ITEMS FOR REVIEW BY THE COMMISSIONER. NO ITEM WILL BE CONSTRUCTED UNTIL THE LOCATION IS APPROVED BY THE COMMISSIONER.
38. THE CONTRACTOR WILL REVIEW THE SHOP DRAWINGS AND PROCEDURES IN ACCORDANCE WITH THE SPECIFICATIONS AND AS SPECIFIED IN ARTICLE XI OF PART 2 (GENERAL CONDITIONS) OF THE SPECIFICATIONS.
39. THE CONTRACTOR MUST ESTABLISH TEMPORARY BENCHMARKS (TBM) AT INTERVALS NOT GREATER THAN THE UNDIMED (500) FEET ALONG THE PROJECT PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THESE BENCHMARKS. THEY WILL NOT BE DISTURBED BY CONSTRUCTION. TBM DATA MUST BE PROVIDED TO THE COMMISSIONER.
40. THE CONTRACTOR MUST PROVIDE ELECTRONIC FILES TO THE COMMISSIONER IN LAND XML AND DXF FORMAT FOR ALL SURVEY DATA (ORIGINAL GROUND TORSION STRAPPING; FINAL LOCATION, GRADES AND ELEVATIONS OF STRUCTURES; UTILITY AS-BUILT DATA; ETC.) FOR THE COMMISSIONER'S REVIEW AND CONFORMANCE. ALL CONTROL POINTS MUST BE SUBMITTED IN .CSV OR .TXT FORMAT FOR THE COMMISSIONER'S REVIEW AND CONFORMANCE.
41. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PRESERVATION OF ALL CITY OF CHICAGO PROPERTY AND MUST CAREFULLY LOCATE AND PROTECT FROM DAMAGE OR RESTORATION TO PROPERTY DOES OCCUR DURING THE WORK. THE CONTRACTOR MUST RESTORE TO NO EXPENSE TO THE OWNER SUCH PROPERTY TO A CONDITION EQUAL TO THAT EXISTING BEFORE SUCH DAMAGE WAS DONE BY REBUILDING OR RESTORING AS DIRECTED BY THE COMMISSIONER.
42. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR CONSTRUCTION.
43. ALL WORK INSIDE THE RUNWAY SAFETY AREA (RSA) WILL BE PERFORMED AT NIGHT WHEN THE RUNWAYS IS CLOSED BY NOTAM. THE CONTRACTOR MUST ENSURE THAT THERE ARE NO DROP-OFFS OR PROTRUSIONS GREATER THAN 3 INCHES IN DEPTH INSIDE THE RSA WHEN THE RUNWAY IS OPERATIONAL.
44. THE CONTRACTOR MUST KNOW THAT THE WORK WILL BE PERFORMED ON AN OPERATING AIRFIELD/CARGO FACILITY WHICH ROUTINELY UTILIZES THE FOLLOWING SUBSTANCES: POTASSIUM ACETATE FOR DE-ICING, GLYCOL FOR DE-ICING, JET FUEL, VARIOUS OILS AND OPERATING/MAINTENANCE FLUIDS NORMAL TO AIRCRAFT AND VEHICLE OPERATION. DURING HIS WORK, STORM WATER MAY HAVE TRANSPORTED THESE SUBSTANCES INTO STORM SEWERS, BASINS, OIL-WATER SEPARATORS AND SOILS. CONTRACTOR BID MUST INCLUDE COSTS FOR WORKING IN THIS ENVIRONMENT.
45. ALL DETERIORATION OF THE SITE AS NEEDED FOR THE CONTRACTOR'S OPERATIONS WILL NOT BE PAID FOR SEPARATELY, BUT BE CONSIDERED AS INCLUDED IN THE OVERALL CONTRACT PRICE.
46. ALL CONSTRUCTION RELATED LIGHTING MUST BE ADJUSTED OR SHUTTER TO PREVENT INTERFERENCE WITH AIR TRAFFIC CONTROL AND AIRCRAFT OPERATIONS.

47. UTILITY LOCATING FLAGS CAN BE USED SPARINGLY.
 - IF SURVEY HUBS OR LATHE ARE USED THEY CANNOT BE HIGHER THAN 3 INCHES FROM THE SURROUNDING ELEVATION.
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110. AS BEST AS POSSIBLE, THE CONTRACTOR SHOULD MAINTAIN NO ELEVATION CHANGES WITHIN THE RSA AND TSA. A MAXIMUM DROP OFF OF THREE (3) INCHES WILL BE ALLOWED. PROTRUSIONS FROM GRADE WILL BE THREE (3) INCHES. FULL DEPTH TRENCHES AND EXCAVATIONS OUTSIDE OF TSA OR THE RSA MAY EXCEED 3 INCHES SUBJECT TO THE APPROVAL OF THE COMMISSIONER AND MUST BE PROVIDED WITH APPROPRIATE SAFETY EQUIPMENT MARKING THROUGH BARRICADES AND LIGHTING. BARRICADES, BARRICADES AND MUST NOT EXCEED 18 INCHES IN HEIGHT. CONCRETE BARRICADES ARE NOT PERMITTED WITHIN ANY ROFA OR TOFA.
111. UTILITY LOCATING FLAGS CAN BE USED SPARINGLY.
 - IF SURVEY HUBS OR LATHE ARE USED THEY CANNOT BE HIGHER THAN 3 INCHES FROM THE SURROUNDING ELEVATION.
112. AS BEST AS POSSIBLE, THE CONTRACTOR SHOULD MAINTAIN NO ELEVATION CHANGES WITHIN THE RSA AND TSA. A MAXIMUM DROP OFF OF THREE (3) INCHES WILL BE ALLOWED. PROTRUSIONS FROM GRADE WILL BE THREE (3) INCHES. FULL DEPTH TRENCHES AND EXCAVATIONS OUTSIDE OF TSA OR THE RSA MAY EXCEED 3 INCHES SUBJECT TO THE APPROVAL OF THE COMMISSIONER AND MUST BE PROVIDED WITH APPROPRIATE SAFETY EQUIPMENT MARKING THROUGH BARRICADES AND LIGHTING. BARRICADES, BARRICADES AND MUST NOT EXCEED 18 INCHES IN HEIGHT. CONCRETE BARRICADES ARE NOT PERMITTED WITHIN ANY ROFA OR TOFA.
113. UTILITY LOCATING FLAGS CAN BE USED SPARINGLY.
 - IF SURVEY HUBS OR LATHE ARE USED THEY CANNOT BE HIGHER THAN 3 INCHES FROM THE SURROUNDING ELEVATION.
114. AS BEST AS POSSIBLE, THE CONTRACTOR SHOULD MAINTAIN NO ELEVATION CHANGES WITHIN THE RSA AND TSA. A MAXIMUM DROP OFF OF THREE (3) INCHES WILL BE ALLOWED. PROTRUSIONS FROM GRADE WILL BE THREE (3) INCHES. FULL DEPTH TRENCHES AND EXCAVATIONS OUTSIDE OF TSA OR THE RSA MAY EXCEED 3 INCHES SUBJECT TO THE APPROVAL OF THE COMMISSIONER AND MUST BE PROVIDED WITH APPROPRIATE SAFETY EQUIPMENT MARKING THROUGH BARRICADES AND LIGHTING. BARRICADES, BARRICADES AND MUST NOT EXCEED 18 INCHES IN HEIGHT. CONCRETE BARRICADES ARE NOT PERMITTED WITHIN ANY ROFA OR TOFA.
115. UTILITY LOCATING FLAGS CAN BE USED SPARINGLY.
 - IF SURVEY HUBS OR LATHE ARE USED THEY CANNOT BE HIGHER THAN 3 INCHES FROM THE SURROUNDING ELEVATION.
116. AS BEST AS POSSIBLE, THE CONTRACTOR SHOULD MAINTAIN NO ELEVATION CHANGES WITHIN THE RSA AND TSA. A MAXIMUM DROP OFF OF THREE (3) INCHES WILL BE ALLOWED. PROTRUSIONS FROM GRADE WILL BE THREE (3) INCHES. FULL DEPTH TRENCHES AND EXCAVATIONS OUTSIDE OF TSA OR THE RSA MAY EXCEED 3 INCHES SUBJECT TO THE APPROVAL OF THE COMMISSIONER AND MUST BE PROVIDED WITH APPROPRIATE SAFETY EQUIPMENT MARKING THROUGH BARRICADES AND LIGHTING. BARRICADES, BARRICADES AND MUST NOT EXCEED 18 INCHES IN HEIGHT. CONCRETE BARRICADES ARE NOT PERMITTED WITHIN ANY ROFA OR TOFA.
117. UTILITY LOCATING FLAGS CAN BE USED SPARINGLY.
 - IF SURVEY HUBS OR LATHE ARE USED THEY CANNOT BE HIGHER THAN 3 INCHES FROM THE SURROUNDING ELEVATION.
118. AS BEST AS POSSIBLE, THE CONTRACTOR SHOULD MAINTAIN NO ELEVATION CHANGES WITHIN THE RSA AND TSA. A MAXIMUM DROP OFF OF THREE (3) INCHES WILL BE ALLOWED. PROTRUSIONS FROM GRADE WILL BE THREE (3) INCHES. FULL DEPTH TRENCHES AND EXCAVATIONS OUTSIDE OF TSA OR THE RSA MAY EXCEED 3 INCHES SUBJECT TO THE APPROVAL OF THE COMMISSIONER AND MUST BE PROVIDED WITH APPROPRIATE SAFETY EQUIPMENT MARKING THROUGH BARRICADES AND LIGHTING. BARRICADES, BARRICADES AND MUST NOT EXCEED 18 INCHES IN HEIGHT. CONCRETE BARRICADES ARE NOT PERMITTED WITHIN ANY ROFA OR TOFA.
119. UTILITY LOCATING FLAGS CAN BE USED SPARINGLY.
 - IF SURVEY HUBS OR LATHE ARE USED THEY CANNOT BE HIGHER THAN 3 INCHES FROM THE SURROUNDING ELEVATION.
120. AS BEST AS POSSIBLE, THE CONTRACTOR SHOULD MAINTAIN NO ELEVATION CHANGES WITHIN THE RSA AND TSA. A MAXIMUM DROP OFF OF THREE (3) INCHES WILL BE ALLOWED. PROTRUSIONS FROM GRADE WILL BE THREE (3) INCHES. FULL DEPTH TRENCHES AND EXCAVATIONS OUTSIDE OF TSA OR THE RSA MAY EXCEED 3 INCHES SUBJECT TO THE APPROVAL OF THE COMMISSIONER AND MUST BE PROVIDED WITH APPROPRIATE SAFETY EQUIPMENT MARKING THROUGH BARR



OHARE INTERNATIONAL AIRPORT
CITY OF CHICAGO
DEPARTMENT OF AVIATION
JAMIE L. REE
CONTRACTOR

REPSTEIN

600 W. FULLTON
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T. 312.454.9100 F. 312.258.1217

STANDARD NOTES ON GENERAL REQUIREMENTS

STAGING AND STORAGE AREAS

6. ANY HAZARDOUS MATERIAL SPILLS (REGARDLESS OF AMOUNT) THAT OCCUR ON THE PROJECT AS A RESULT OF CONSTRUCTION ACTIVITIES MUST BE IMMEDIATELY REPORTED TO THE OHARE COMMUNICATIONS CENTER AT 773-894-9111 AND AIRPORT OPERATIONS AT 773-686-2255.
7. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PROTECTION OF THE WORKSITE WHICH INCLUDES CUTTING VEGETATION AROUND ALL LOW PROFILE BARRICADES AND SNOWBILT FENCE SO THEY DO NOT BECOME OBSCURED. ALL INFIELD AREAS THAT CANNOT BE SAFELY ACCESSED BY COA GRASS CUTTERS DURING ROUTINE MAINTENANCE OPERATIONS MUST BE MAINTAINED IN A MANNER THAT PERMITS ACCESS TO THE PROJECT OR UNTIL SUCH TIME THAT CUTTING CREWS CAN SAFELY ACCESS THE SITE. THE CONTRACTOR MUST MAINTAIN ALL GRASS AREAS BETWEEN 6 AND 8". ALL SNOW AND SILT FENCES MUST REMAIN FREE OF WEEDS AND TALL GRASSES THAT OBSTRUCT THE FENCE LINES.
8. THE FOLLOWING ARE RSA SPECIFIC REQUIREMENTS:
 - A. WORK IS NOT PERMITTED WITHIN THE RUNWAY SAFETY AREA WHILE THE RUNWAY IS OPEN AND AVAILABLE FOR AIRCRAFT OPERATIONS.
 - B. WHEN WORKING WITHIN THE RSA, THE FOLLOWING RESTRICTIONS MUST BE MET AT COMPLETION OF THE SCHEDULED WORK:
 1. NO EXCAVATIONS OF ANY KIND
 2. NO ELEVATION CHANGES OF MORE THAN 3 INCHES
 3. NO STANDING OR PONDING WATER
 4. ALL STRUCTURES ARE GRADED TO SURROUNDING GROUND ELEVATIONS
 5. GRADE CHANGES OR SLOPES IN THE RSA CANNOT EXCEED 5%.
 9. THE FOLLOWING ARE PART 139 REQUIREMENTS FOR TEMPORARY AIRFIELD ELECTRICAL INSTALLATIONS:
 - A. ALL TEMPORARY ELECTRICAL CIRCUITS SHALL BE IN COMPLIANCE WITH AC 150/5340-30G SPECIFICALLY, APPENDIX A5-12 (2), (2), AND (3).
 - B. DUE TO THE INHERENT DANGERS OF AIRFIELD ELECTRICAL CIRCUITS, ALL TEMPORARY AIRFIELD LIGHTING CIRCUITS THAT ARE CARRYING PRIMARY AIRFIELD CURRENTS AND LIGHTING CIRCUITS ARE REQUIRED TO BE TRENCHED INTO THE AIRFIELD AND TERMINATED IN A MANHOLE OR BASE CAN. SECONDARY ELECTRICAL CIRCUITS ARE PERMITTED ABOVE GRADE. ALL SECONDARY CIRCUITS ARE TO BE PLACED IN RIGID CONDUIT ON A PAVEMENT SURFACE WHERE THE POSSIBILITY OF VEHICLE TRAFFIC IS PRESENT.
 - C. TEMPORARY CABLES PLACED IN THE INFIELD MAY BE PLACED IN PVC OR RIGID CONDUITS. PVC CONDUIT WILL BE PERMITTED IN AREAS WHERE THERE IS NO CHANGE OF VEHICLE TRAFFIC. ALL CONDUITS SHALL BE CLEARLY MARKED AND REMAIN HIGHLY VISIBLE. ALL TEMPORARY CONDUIT SHALL BE CLEARLY MARKED AND REMAIN HIGHLY VISIBLE.
 - D. CONDUITS ON PAVEMENT SURFACES SHALL BE MARKED WITH PAINT AND IDENTIFIED WITH WOODEN LATH OR SURVEY FLAGS IN INFIELD AREAS (IDENTIFYING MARKERS CANNOT BE USED IN INFIELD AREAS). CONDUITS IN THE CONDUIT AREA (INFIELD AREA), ALL TEMPORARY CONDUITS WITHIN A SAFETY AREA WILL NEED TO BE COORDINATED THROUGH COA OPERATIONS.
 - E. ALL CONDUITS AND BASE CANS (IF APPLICABLE) THAT ARE MOUNTED ON A PAVED SURFACE SHALL BE PROTECTED BY A CURB OR CURB AND GUTTER. ALL CONDUITS MAY BE REQUIRED TO BE RAMMED OVER WITH ASPHALT OR CONCRETE WITHIN ANY SAFETY AREA.
10. PART 139 REQUIREMENTS RELATED TO NAVIGATIONAL EQUIPMENT (NAVAIDS):
 - A. NO WORK IS PERMITTED IN THE U.S. CRITICAL AREAS WHILE A RUNWAY IS OPEN AND AVAILABLE FOR USE. ALL WORK OR ACCESS TO OTHER NAVAIDS WITHIN THESE AREAS MUST BE COORDINATED WITH THE COMMISSIONER AND COA OPERATIONS AND THE NAVAID MUST BE TURNED OFF WHEN WORKING IN THE VICINITY OF THEM. WORK TO TAKE PLACE IN THESE AREAS MUST BE COORDINATED WITH THE COMMISSIONER AND COA OPERATIONS AND WILL REQUIRE A MINIMUM OF 5 DAYS NOTICE PRIOR TO THE WORK OCCURRING.
 - B. THE CONTRACTORS SHALL NOT PARK, STAGE, STORE, OR STOCKPILE ANY MATERIAL OR EQUIPMENT WITHIN ANY NAVAID CRITICAL AREAS.
 11. PART 139 REQUIREMENTS RELATED TO CRANE OPERATIONS:
 - A. ALL CRANE LOCATIONS ON THE JOBSITE REQUIRE SUBMITTAL OF AN FAA 7460 AIRSPACE STUDY TO FAA.
 - B. USE OF A CRANE AT A SPECIFIC LOCATION REQUIRES A MINIMUM 5 DAY NOTICE TO COA OPERATIONS AND COA OPERATIONS SHALL BE ADVISED OF THE CRANE'S LOCATION AND OPERATIONS (THIS IS A ONE TIME NOTIFICATION FOR EACH WORKING LOCATION).
 - C. ALL CRANE OPERATIONS ARE TO BE COORDINATED WITH THE COMMISSIONER AND COA OPERATIONS ON A DAILY BASIS.
 12. OTHER GENERAL CONSTRUCTION SAFETY 14CFR PART 139 REQUIREMENTS:
 - A. ALL MANDATORY HOLD BARS AND SURFACE PAINTED MARKINGS OBTAINED, REMOVED, OR REPAIRED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL COSTS ASSOCIATED WITH REPAINTING ARE THE RESPONSIBILITY OF THE CONTRACTOR.
 - B. ANY PART 139 DEFICIENCIES MUST BE REMEDIATED IMMEDIATELY BY STOPPING WORK IF NECESSARY AND AT NO ADDITIONAL COST TO THE CITY. UPON NOTIFICATION OF ANY 14CFR PART 139 VIOLATIONS, AT ANY POINT DURING THE DURATION OF THE CONTRACT, THE CONTRACTOR MUST IMMEDIATELY MOBILIZE CREWS AS NECESSARY TO REMEDIATE ALL ISSUES TO THE SATISFACTION OF THE COMMISSIONER.
1. RECOMMENDED FAA PUBLICATIONS FOR CONTRACTORS INCLUDE BUT NOT LIMITED TO:
 - 14CFR PART 77 "SAFE, EFFICIENT USE AND PRESERVATION OF NAVIGABLE AIRSPACE"
 - AC 150/5370-2 (CURRENT EDITION) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION"
 - AC 150/5370-10 (CURRENT EDITION) "STANDARDS FOR SPECIFYING CONSTRUCTION OF AIRPORTS"
 - AC 150/5370-13 (CURRENT EDITION) "OFF-PEAK CONSTRUCTION OF AIRPORT PAVEMENTS USING HOT MIX ASPHALT"
 - AC 150/5370-14 (CURRENT EDITION) "HOT MIX ASPHALT PAVING HANDBOOK"
2. FOR THE DURATION OF THIS PROJECT, RUNWAYS AND TAXIWAYS WILL BE OPEN AND AVAILABLE FOR AIRCRAFT OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THEIR PROJECT. ALL RUNWAY AND TAXIWAY SAFETY AREAS ARE TO REMAIN CLEAR OF ALL MEN AND EQUIPMENT WHILE THE RUNWAY OR TAXIWAY IS OPEN AND AVAILABLE FOR AIRCRAFT OPERATIONS. THE RUNWAY OR TAXIWAY SHALL BE CLOSED TO AIRCRAFT OPERATIONS BY NOTICED TO AIR TRAFFIC OPERATIONS.
3. ALL STOCKPILED MATERIAL MUST BE PLACED AND MAINTAINED IN AN AREA THAT IS CLEAR OF ALL RSA, TSA, AND TOFA AND HEIGHTS OF ANY STOCKPILED MATERIAL MUST NOT EXCEED THE HEIGHTS OF THE AIRFIELD SURFACE. ALL STOCKPILED MATERIAL MUST BE AIRSPACE STUDY CONDUCTED AND APPROVED PRIOR TO ANY MATERIAL BEING LEFT ON SITE.
4. CONSTRUCTION VEHICLES AND EQUIPMENT MUST NOT BE PARKED OR STAGED ON CLOSED RUNWAYS OR TAXIWAYS OR WITHIN THE RSA, TOFA, RSA AND ROFA. ALL VEHICLES AND EQUIPMENT MUST BE PARKED OR STORED IN AN AREA THAT IS CLEAR OF ALL RSA, TOFA, ROFA AND HEIGHTS OF ANY VEHICLE OR EQUIPMENT DO NOT PENETRATE AND PAR PART 77 SURFACES. ANY EQUIPMENT THAT CANNOT BE NEAR THE JOB SITE, MUST BE PARKED OR STAGED IN A MANNER THAT THE MAIN OR EQUIPMENT VEHICLES ARE NOT IN THE RSA, TSA, ROFA, OR TOFA AND DO NOT PENETRATE FAR PART 77 SURFACES. VEHICLES, EQUIPMENT, MATERIAL AND STOCKPILES SURFACES, LARGE EQUIPMENT THAT CANNOT BE MOVED MUST OBTAIN APPROVAL FROM COA AIRPORT OPERATIONS AND MUST BE LIGHTED TO REMAIN VISIBLE.
5. NO HAUL ROUTES MAY PENETRATE THE RSA OR TSA, WHEN THEY ARE OPEN TO AIR OPERATIONS. ALL HAUL ROUTES MUST BE IDENTIFIED IN THE APPROVED CONSTRUCTION DRAWINGS AND APPROVED BY FAA AND COA. IF THE CONTRACTOR WISHES TO USE A HAUL ROUTE OTHER THAN THOSE IDENTIFIED IN THE APPROVED CONSTRUCTION DRAWINGS, THE CONTRACTOR MUST SUBMIT AN FAA 7460 AIRSPACE STUDY FOR THE PROPOSED HAUL ROUTE, WHERE APPROVED HAUL ROUTES CROSS AN ACTIVE TAXIWAY, A VACUUM TYPE SWEEPER SHALL BE ASSIGNED TO THE AREA WHILE THAT PARTICULAR ROUTE IS IN OPERATION.
6. GRINDINGS USED TO BUILT HAUL ROADS WILL HAVE AN ASPHALT CAP PAVED TO 112 FEET FROM THE TAXIWAY CENTERLINE AS DESIGNED AND DETAILED BY THE DESIGNER ON THE PLANS TO REDUCE THE POTENTIAL FOD CAUSED BY JET BLAST IF A B747-400 IS EXPECTED TO TRAVERSE THAT TAXIWAY.
7. UNDER THE REQUIREMENTS OF THE OHARE SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEMS (SMGS) PLAN, ANY CONSTRUCTION ACTIVITY THAT UTILIZES A HAUL ROUTE THAT CROSSES AN ACTIVE TAXIWAY WILL BE SHUT DOWN IF VISIBILITY ON THE TAXIWAY IS REDUCED TO 1000 FEET OR LESS. THE CONTRACTOR SHALL BE ADVISED OF COA OPERATIONS WHEN THIS OCCURS AND WILL ALSO BE NOTIFIED WHEN HAULING OPERATIONS CAN RESUME.
8. THE CONTRACTOR MUST MAINTAIN ACCESS TO ALL FIRE STATIONS, FIRE FIGHTING ACCESS ROADS, AND STAGING AREAS AT ALL TIMES DURING THE CONSTRUCTION OF THE WORK. UNOBSTRUCTED PATHS MUST BE MAINTAINED TO AND FROM ALL FIRE STATIONS, FIRE ACCESS ROADS, AND STAGING AREAS. ALL FIRE ACCESS ROADS ARE TO REMAIN CLEAR OF VEHICLE, EQUIPMENT, MATERIALS, AND STOCKPILES AT ALL TIMES. IF ACCESS TO ANY OF THESE AREAS IS OBSTRUCTED, ALL WORK MUST BE COORDINATED WITH THE COMMISSIONER AND COA OPERATIONS.

10. THE CONTRACTOR MUST DEVELOP A SITE SPECIFIC CONSTRUCTION SAFETY PROGRAM (SCSP) AND SUBMIT IT TO THE COMMISSIONER FOR APPROVAL AT LEAST THIRTY (30) DAYS PRIOR TO THE START OF WORK. THE CONTRACTOR'S SAFETY PROGRAM MUST BE IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN PART 2 (GENERAL CONSTRUCTION SAFETY) AND PART 139 (TEMPORARY AIRFIELD OPERATIONS) OF THE FEDERAL AVIATION REGULATIONS (FAR). THE CONTRACTOR IS RESPONSIBLE FOR ALL COMPLIANCE WITH ALL FEDERAL AVIATION REGULATIONS (FAR), FEDERAL AVIATION ADMINISTRATION (FAA) AND COA BADGING REQUIREMENTS AND EMPLOYEE BACKGROUND CHECKS.

11. "303 TRAINING" IS MANDATORY FOR ALL PERSONNEL THAT WILL BE BADGED AND ALLOWED TO PERFORM WORK OR DUTIES WITHIN THE OAA. "303 TRAINING" MUST BE COMPLETED EVERY YEAR AND EXPIRES ONE YEAR FROM THE DATE OF TRAINING. ANY CONTRACTOR EMPLOYEE APPLYING FOR AN ORD BADGE MUST ATTEND THE 303 AIRFIELD SAFETY TRAINING. THE TRAINING EMPLOYEES MUST HAVE THEIR BADGES REPENDENT AND WILL NOT HAVE ACCESS UNTIL TRAINING REQUIREMENTS ARE MET. CONTRACTORS HAVE TO MAINTAIN TRAINING RECORDS OF THEIR WORKERS TO KEEP BADGING AND TRAINING UP TO DATE AND MUST NOTIFY CD/OMP OF CHANGES IN THE EMPLOYMENT AND/OR BADGE STATUS OF THEIR WORKERS.

12. BADGED EMPLOYEES THAT ESCORT NON-BADGED EMPLOYEES ONTO THE OAA MUST REMAIN WITH THEM AT ALL TIMES WHILE ON THE JOBSITE. TRANSFERRING NON-BADGED EMPLOYEES TO OTHER BADGED EMPLOYEES FOR ESCORTING IS NOT ALLOWED. COA REGULATIONS PROHIBIT "LEAVING A NON-BADGED EMPLOYEE UNSUPERVISED AT ANY TIME."

13. "VEHICLE DRIVING PERMITS" FROM THE ORD ID BADGING OFFICE.

14. A STAGING AREA SHALL BE MADE AVAILABLE FOR CONTRACTORS MOBILIZATION. STAGING AREAS MUST BE PREPARED, MAINTAINED, SHOWN, AND BE COMPLETED TO THE ORIGINAL CONDITION, TO THE APPROVAL OF THE COMMISSIONER WITHIN THIRTY (30) DAYS OF THE COMPLETION OF THE PROJECT, AT THE CONTRACTOR'S EXPENSE.

15. THE CONTRACTOR MUST STORE ALL EQUIPMENT, VEHICLES AND MATERIALS ONLY IN THOSE STAGING AREAS SHOWN ON THE DRAWINGS OR AS DESIGNATED BY THE COMMISSIONER.

16. THE EXACT LIMITS, LIGHTING, ENVIRONMENTAL AND SECURITY REQUIREMENTS OF THE CONTRACTOR'S STAGING AND STORAGE AREAS MUST BE ESTABLISHED BY THE CONTRACTOR SUBJECT TO APPROVAL OF THE COMMISSIONER. ANY AND ALL REQUIRED UTILITIES FOR THE CONTRACTOR'S OPERATIONS MUST BE ARRANGED FOR AND PAID FOR BY THE CONTRACTOR AND PAID DIRECTLY TO THE APPROPRIATE UTILITY. COST ASSOCIATED WITH PREPARING THE STAGING AND STAGING AREAS WILL BE BORNE BY THE CONTRACTOR. THIS INCLUDES, BUT IS NOT LIMITED TO, CLEARING AND GRADING OF THE SITE, CONSTRUCTION OF ALL TEMPORARY UTILITIES, ACCESS ROADS, ALL SECURITY FENCING, EROSION AND SEDIMENT CONTROL, CLEANUP, AND RESTORATION OF THE SITE TO ITS ORIGINAL CONDITION.

17. AN AREA ON THE SITE MAY BE MADE AVAILABLE FOR ONSITE CONCRETE AND ASPHALT BATCH PLANTS. IN THIS EVENT, THE CONTRACTOR MUST BE SOLELY RESPONSIBLE FOR THE PROTECTION OF THE BATCH PLANTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO OPERATE THE BATCH PLANTS, THE MAXIMUM HEIGHT OF THE PLANTS AND MATERIAL STOCKPILES MUST NOT PENETRATE THE FAR PART 77 SURFACES OF THE AIRPORT. THE CONTRACTOR MUST PREPARE THE SITE AND RESTORE THE AREA TO ITS ORIGINAL CONDITION PRIOR TO THE COMPLETION OF THE PROJECT. WHEN FENCES MUST BE PLACED AT THE SITE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FENCES. THE CONTRACTOR'S EXPENSE AND AT NO ADDITIONAL COST. THE CD/OMP WILL ASSIST THE CONTRACTOR IN PREPARING LINE-OF-SITE ANALYSIS AND FAA 7460-1 FORMS, PRIOR TO ERECTION OF ANY BATCH PLANT ON AIRPORT PROPERTY. BATCH PLANTS MUST BE MAINTAINED TO BE OPERATIONAL TO THE ORIGINAL CONDITION WITHIN 30 DAYS OF THE COMPLETION OF THE PROJECT.

18. REIRCULATION BRIDGE REPLACEMENT

GENERAL NOTES (3 OF 4)

DESIGNED: VI DRAWING: DR CHECKED: VI

PROJECT NO.: H3073.1500 DATE: 02/21/19

SHEET NO. G 01 006

REV. DATE DESCRIPTION

02/21/19 (REVISED FOR BID)

PROJECT NAME:

REIRCULATION BRIDGE REPLACEMENT

GENERAL NOTES (3 OF 4)

REVISION:

STANDARD NOTES ON GENERAL REQUIREMENTS

- 1. UTILITY REQUIREMENTS**
- EXISTING UTILITY INFORMATION SHOWN ON THE DRAWINGS WAS COMPILED BASED ON THE BEST AVAILABLE PUBLIC RECORDS. CONTRACTORS MUST PROVIDE A UTILITY LOCATION REPORT TO THE CDA IN THE CONSTRUCTION PHASE OF THE PROJECT. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES IN PLACE UNLESS OTHERWISE NOTED OR SPECIFIED. THE OWNER AND COMMISSIONER BEAR NO RESPONSIBILITY FOR UTILITIES NOT SHOWN ON THE DRAWINGS. ANY AND ALL DAMAGE TO EXISTING UTILITIES DURING CONSTRUCTION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. EXCAVATION IMMEDIATELY NEAR UTILITIES MUST BE DONE BY HAND. UTILITIES INTERFERING WITH CONSTRUCTION MUST BE RESET OR RELOCATED BY THE UTILITY COMPANY CONCERNED UNLESS NOTED OTHERWISE OR OTHER ARRANGEMENTS HAVE BEEN MADE WITH THE UTILITY COMPANY. THE CONTRACTOR MUST COORDINATE FIRST WITH THE UTILITY COMPANY PRIOR TO BEGINNING ANY WORK. THE CONTRACTOR MUST COORDINATE WITH THE UTILITY COMPANY PRIOR TO BEGINNING CONSTRUCTION. AT LEAST TWO WEEKS PRIOR TO BEGINNING CONSTRUCTION, FOR RELOCATION OF ANY UTILITY FACILITIES, CONTRACTORS MUST KNOW THAT ACTUAL COMPLETION OF ANY RELOCATION PROJECT OR MUST COORDINATE WITH THE COMMISSIONER FOR ANY WORK NECESSARY TO RELOCATE, REMOVE, DISCONNECT, OR CONNECT TO UTILITY FACILITIES.

TABLE 2

| UTILITY | CONTACT NAME | CONTACT NUMBER |
|---|--|--|
| AVIATION SECURITY | MIKAWANA | (815) 825-1711 |
| CHICAGO AIRPORT SECURITY | MIKAWANA | (773) 896-2834 |
| CRUISE | MISMER | (773) 896-2834 |
| FEDERAL AVIATION ADMINISTRATION (FAA) | APRIL OWENS BRIAN HOBBS TODD HUBBARD | (773) 896-2834 (773) 442-2800 (773) 471-2483 |
| FULL LINE ENERGY - AIRPORT GROUP INTERNATIONAL | TODD HUBBARD OR MIKE OVERBERG | (773) 896-2834 |
| GEN-PROFES ENERGY | MIKE OVERBERG | (773) 896-2834 |
| INDUSTRIAL SUPPLY COOPERATION (FOR EXCAVATION LOCALS) | MIKE OVERBERG | (773) 896-2834 |
| MIKE OVERBERG | MIKE OVERBERG | (773) 896-2834 |
| MTR (LOCAL RENEWABLE CO.) | SAVANNAH | (773) 896-2834 |
| NORTH OAK RESERVE CO. | DAVID | (773) 896-2834 |
| ONE-NINE AIRBORNE LIGHTING CO. | CONRAD | (800) 368-3355 |
| PERI (PORTABLE LIGHTING) | ED JANSKI | (815) 242-5546 |
| SHAW-WALKER | JOHN | (815) 242-5546 |
| UNION PACIFIC RAILROAD CO. | JOHN VERA | (312) 773-2967 |
| WEST | MIKE GRADY | (815) 462-8904 |

- 2. ACCESS TO ALL FAA FACILITIES AND EQUIPMENT MUST BE MAINTAINED AT ALL TIMES. A CLEAR, SAFE AND UNOBSTRUCTED PATH TO THE SITE FOR FAA TECHNICIANS MUST BE MAINTAINED FOR ALL PHASES OF THE PROJECT. TO ACCESS FAA FACILITIES, NOTIFICATION IS 5 DAYS IN ADVANCE OF FAA ASSISTANCE. REQUEST FOR FAA ASSISTANCE FORM MUST BE USED FOR THIS PURPOSE.**
- 3. WORK IN OR AT THE VICINITY OF FAA FACILITIES AND EQUIPMENT MUST FOLLOW THE FOLLOWING REQUIREMENTS:**
- A. THE CONTRACTOR MUST REQUEST THAT THE FAA LOCATE AND MARK FAA CABLES WITHIN THE PERIMETER OF THE CONSTRUCTION AREA USING THE FAA FIELD CABLE LOCATES REQUEST FORM. ALL CABLE LOCATES WILL REQUIRE 72 HOUR ADVANCE NOTIFICATION AND THE SUBMISSION OF ALL REQUIRED DOCUMENTS. THE 72 HOUR ADVANCE NOTIFICATION DOES NOT INCLUDE WEEKENDS AND HOLIDAYS AND CONSTRUCTION MUST BE MADE BY 4:30 P.M. OR TRACKING STARTS ON THE NEXT CONSECUTIVE BUSINESS DAY.
 - B. THE CONTRACTOR MUST INSTALL TEMPORARY SAFETY FENCES FIVE FEET AWAY AND THE MATERIALS FOR THE TEMPORARY SAFETY AREA MARKINGS (SNOW FENCE) MUST BE AS DESCRIBED IN PARAGRAPH 2.05 OF SECTION M-03 AIRPORT SAFETY AND SECURITY.
 - C. IF ANY FAA FACILITIES ARE OBTAINED OUT OF SERVICE, THE TEMPORARY SAFETY FENCE MUST BE INSTALLED A MINIMUM OF 10 FEET AROUND THE FACILITY WITHIN THE PROJECT LIMITS. SNOW FENCE MUST BE INSTALLED 50 FEET AROUND FACILITIES THAT ARE OPERATIONAL.
 - D. THE CONTRACTOR WHEN ENTERING INTO A MANHOLE/HANDHOLE THAT CONTAINS LIVE FAA CABLES (POWER OR CONTROL) MUST FOLLOW FAA ESTABLISHED PROCEDURES. REQUEST FOR FAA ASSISTANCE FORM MUST BE FILLED OUT AND SUBMITTED TO FAA AND AN FAA RE MUST BE OBTAINED DURING ANY CONSTRUCTION ACTIVITIES WITHIN THE STRUCTURE. THIS WORK WILL ONLY BE ALLOWED TO TAKE PLACE AT NIGHT AFTER CLOSE COORDINATION WITH THE FAA.
 - E. ANY DAMAGE TO FAA CABLES, ACCESS ROADS, OR TO FAA FACILITIES DURING CONSTRUCTION OF THE PROJECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. ACCESS ROADS OR FAA FACILITIES TO THE TECHNICAL OPERATIONS DISTRICT OFFICES REQUIRING AND AT THE CONTRACTOR'S EXPENSE. IF ANY FAA CABLES ARE DAMAGED, THE CONTRACTOR MUST REPLACE THE CABLES IN THEIR ENTIRETY. THE SPLICING OF CABLES IS NOT AN ACCEPTABLE FORM OF REPAIR.

- 4. THE CONSTRUCTION MANAGER (CM) MUST CONTACT AND COMMUNICATE WITH THE CDA SECURITY REPRESENTATIVE TO DISCUSS THE PROPOSED CHANGES.**
- 1. TIME FRAME OF THE DURATION WILL BE A CHANGED CONDITION (1 DAY TO LESS THAN 60 DAYS) OR AN AMENDMENT (MORE THAN 60 DAYS), SHOWING EXISTING AND PROPOSED CONDITIONS ALONG WITH VERBAGE DETAILING THE CHANGES. THE EXHIBITS WILL BE INCORPORATED INTO THE DOCUMENT TO BE FORWARDED BY THE CDA SECURITY REPRESENTATIVE FOR SUBMITTAL TO TRANSPORTATION SECURITY. CONSENT TO THE PROPOSED CHANGES MUST BE OBTAINED FROM THE CDA SECURITY REPRESENTATIVE AND ALL REGULATED SECURITY SERVICES ARE IN PLACE. THIS IS BEING DETERMINED AFTER DISCUSSION AND IS INCORPORATED INTO THE VERBAGE OF THE DOCUMENT SUBMITTED TO THE TRANSPORTATION SECURITY ADMINISTRATION. THE DOCUMENT SUBMITTED WILL INCORPORATE TIME LINES OF WHAT ARE BEING CHANGED. THE CDA SECURITY REPRESENTATIVE WILL REVIEW THE DOCUMENT AND THE TRANSPORTATION SECURITY ADMINISTRATION REGULATORY INSPECTOR MEET IN ORDER TO COMMISSION THE WORK THAT WAS COMPLETED.**

- 2. MINIMUM SECURITY STAFFING AND SHELTER REQUIREMENTS**
- A. ONLY THOSE SECURITY AGENCIES DESIGNATED BY THE CDA SECURITY WILL BE AUTHORIZED UNDER THE AIRPORT SECURITY PLAN (ASP) TO PERFORM WORK AS IT PERTAINS TO IMPLEMENTING SECURITY MEASURES WITHIN THE AOA FOR CDA PROJECTS.
 - B. MINIMUM STAFFING LEVELS FOR ANY ACCESS POINT CREATED WILL BE TWO (2) GUARDS, PER PORTAL ESTABLISHED.
 - C. SHELTER MUST BE PROVIDED IN THE FORM OF A VEHICLE AND/OR BOOTH STRUCTURE 50 FEET FROM THE ACCESS PORTAL ESTABLISHED AND MUST BE ADEQUATELY POWERED TO SUPPORT COMMUNICATIONS, HEATING, AIR CONDITIONING, AND MUST INCLUDE CHAIRS FOR THE STAFF ESTABLISHED. IN ADDITION, PORTABLE WASHROOM/TOILET MUST BE PLACED ADJACENT TO THE SHELTER STRUCTURE TO SUPPORT THE STAFFING LEVELS, AND MUST BE PROPERLY SERVICED AND MAINTAINED.
 - D. STAFFING SCHEDULES MUST BE FORWARDED WITHIN A 2 WEEK PERIOD FOR ANY CHANGES. NEW ACCESS PORTALS CREATED WILL REQUIRE A MINIMUM 30 DAY NOTICE TO THE PROPER AUTHORITY TO ASSURE STAFFING NEEDS CAN BE MET.
 - E. TO MAINTAIN MAXIMUM EFFICIENCY AND SAFETY STANDARDS, CONSTRUCTION ACTIVITY AND ACCESS MUST ALWAYS BE SEPARATE FROM REGULAR ACCESS. EXAMPLE: PLANNED CONSTRUCTION ADJACENT TO EXISTING POST #12, WOULD REQUIRE A PORTAL FOR CONSTRUCTION ACCESS THAT WOULD BE DESIGNATED POST #12A ON A CDA.

- 3. TEMPORARY MARKING REMOVAL FOR CLOSED PAVEMENTS:**
- THE CRITERIA FOR THE REMOVAL OF PAVEMENT MARKINGS FOR CLOSURES WITHIN THE AOA HAVE BEEN ESTABLISHED ACCORDING TO THE DURATION OF THE CLOSURE. REFER TO THE PROJECT CSPP SECTION ON HAZARD MARKING, LIGHTING AND SIGNING.
- CDM WILL COORDINATE WITH CDA OPERATIONS AND THE CONTRACTOR TO IDENTIFY ALL MARKINGS THAT WILL BE AFFECTED. EACH AREA WILL BE EVALUATED TO DETERMINE THE METHOD OF REMOVAL.**
- MARKINGS ON PAVEMENT SURFACES WILL NEED TO BE EVALUATED FOR THE CONDITION OF THE PAVEMENT. MARKINGS WILL BE REMOVED USING EITHER WATER BLASTING, GRINDING OR MEDIA BLASTING. IF IT IS DETERMINED THAT REMOVAL OF MARKINGS WILL CAUSE SIGNIFICANT DAMAGE TO THE PAVEMENT SURFACE OR ARE FOR DURATION OF 30 DAYS OR LESS, THESE MARKINGS WILL BE BLACKED OUT INSTEAD OF BEING PHYSICALLY REMOVED.**
- ALL MARKINGS THAT ARE IDENTIFIED TO BE PAINTED OVER WILL BE PAINTED TO CLOSELY MATCH THE COLOR OF THE EXISTING PAVEMENT. ANY COLOR SHADING OTHER THAN THAT REQUIRED TO ENSURE THAT ANY SHADING OF TAXIWAY OR RUNWAY MARKINGS. THIS IS REQUIRED TO ENSURE THAT ANY SHADING DOES NOT BLEED THROUGH THE SURFACE COLOR AS IT WEARS.**

AIRFIELD SECURITY FENCING AND ACCESS PROTOCOL

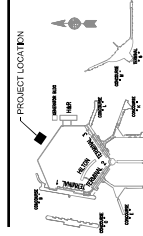
- 1. CHANGES TO SECURITY FENCING**
- A. AN INTERIM CONDITION IS ANY CONDITION OR CHANGES THAT WILL BE MADE AND LAST LESS THAN 60 DAYS (2 MONTHS). THIS WILL REQUIRE A 14 DAY NOTICE TO THE CDA SECURITY REPRESENTATIVE TO FORMAT AND FORWARD TO THE TRANSPORTATION SECURITY ADMINISTRATION (TSA), A CHANGED CONDITION. EXAMPLES OF CHANGED CONDITION ARE:
 - 1. A BREACH IN THE FENCE TO INSTALL A WATER MAIN FOR A 2 DAY DURATION
 - 2. A FENCE INSTALLED THAT WILL BE REMOVED WITHIN 2 MONTHS
 - B. ANY CONDITION THAT WILL LAST MORE THAN 60 DAYS WILL REQUIRE A MINIMUM OF 60 DAYS NOTICE TO THE CDA SECURITY REPRESENTATIVE TO FORMAT AND SUBMIT FOR APPROVAL TO THE TRANSPORTATION SECURITY ADMINISTRATION. AN AMENDMENT TO THE DOCUMENT WILL BE REQUIRED. THE 60 DAY NOTICE PERIOD COMMENCES 15 DAYS AFTER NOTICE IS FORWARDED BY THE CDA SECURITY REPRESENTATIVE.

GENERAL NOTES

- F. PROPOSED GRADING CHANGES IN THE GLIDE SLOPE (GS) SIGNAL FORMING AREA MAY ADVERSELY AFFECT THE GS SIGNAL. ENSURE THAT SITE PREPARATION IS IN ACCORDANCE WITH THE GS SIGNAL. INSTRUMENT LANDING SYSTEMS, PROVIDE TYPICAL SECTIONS OF THE TAXIWAY PAVING AND SURROUNDING EXISTING AND PROPOSED GRADING TAKEN THROUGH THE GUIDE SLOPE CRITICAL AREA (GSCA) TO THE FAA FOR THEIR REVIEW OF POSSIBLE SIGNAL INTERFERENCE. INSTRUMENT LANDING SYSTEMS TO GENERATION TO CREATE POSSIBLE HAZARD TO NAVIGATION.
- G. ALL EXISTING UTILITIES SERVING THE AIRPORT MUST REMAIN IN CONTINUOUS OPERATION DURING CONSTRUCTION UNLESS OTHERWISE NOTED OTHERWISE OR SEPARATE CONTRACTS. THESE UTILITIES INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: CITY, FAA, AT&T, PEOPLES GAS, COMED, CONTROL, AND COMMUNICATION CABLES, WATER LINE, FUEL LINES, SEWER AND DRAINAGE LINES. THE CONTRACTOR MUST CONTACT THE UTILITY COMPANIES PRIOR TO BEGINNING ANY WORK TO OBTAIN THE LOCATION AND DEPTH OF UTILITIES. THE WORK SO THAT THE OWNERS MAY LOCATE AND STAKE THEIR UTILITIES. THE CONTRACTOR MUST NOTIFY THE COMMISSIONER, IN WRITING, FORTY-EIGHT (48) HOURS PRIOR TO THE UTILITY OWNER LOCATING THE UTILITY.
- H. THE CONTRACTOR MUST PROVIDE SEVENTY-TWO (72) HOURS NOTICE PRIOR TO ANY OFFENCES OR SHUTDOWNS TO THE COMMISSIONER AND THE AGENCY OWNING THE UTILITY. THE CONTRACTOR MUST PROVIDE ANY TEMPORARY CONNECTIONS OR OTHER MEASURES AS MAY BE REQUIRED TO MAINTAIN SERVICE AT NO ADDITIONAL CHARGE. THE CONTRACTOR MUST BE RESPONSIBLE FOR THE PROTECTION OF THE CONTRACTOR AND TO THE SPECIFICATIONS OF THE COMMISSIONER. FAA OR AFFECTED UTILITY.
- I. THE CONTRACTOR MUST DETERMINE THE LOCATIONS OF ALL FAA UTILITIES AND ALL OTHER UNDERGROUND UTILITIES WITHIN THE CONSTRUCTION AREA FOR WORKING AND AS PROTECT AND PREVENT DAMAGE TO SUCH FACILITIES FROM ITS OPERATION UNDER THIS CONTRACT. PROTECTION OF UNDERGROUND FAH AND OTHER FACILITIES MUST BE IN ACCORDANCE WITH THE CDA/OMP SPECIFICATIONS M-03 PARAGRAPHS 2.06, 3.20, AND 3.21.
- J. NO EXCAVATION ACTIVITIES OR DISRUPTION OF ANY SURFACE IS TO BE UNDERTAKEN UNTIL THE COMMISSIONER HAS REVIEWED THE SITE FOR UTILITY DELINEATION AND HAS AUTHORIZED THE CONTRACTOR TO PROCEED.
- K. CONTRACTOR OPERATIONS SUCH AS TRENCHING, JACKING OF PIPE OR CASINGS, EXCAVATION FOR PAVEMENTS OR STRUCTURES, SITE GRADING, AND VEHICULAR TRAFFIC OVER EARTH AREAS WILL OCCUR IN THE VICINITY OF FACILITIES, INCLUDING, BUT NOT LIMITED TO, RUNWAYS, TAXIWAYS, AND AIRFIELD ROADS. THE CONTRACTOR MUST TAKE PRECAUTIONS TO PROTECT THE OPERATION OF THE AIR TRAFFIC CONTROL SYSTEM AND FACILITIES ARE CRITICAL TO THE OPERATION OF THE AIRPORT. CONSTRUCTION SYSTEM AND MUST NOT BE DISTURBED. THE FAA REGARDS THE PROSPECT OF FAILURE OF AIR TRAFFIC CONTROL SYSTEMS CAUSED BY CONTRACTOR NEGLIGENCE WITH UTMOST CONCERN, AND MAINTAINS A ZERO TOLERANCE POLICY.
- L. THE CONTRACTOR IS RESPONSIBLE TO LOCATE ALL EXISTING UTILITIES WITHIN TEN (10) FEET OF ANY PROPOSED UTILITIES LOCATION, UTILIZING NONDESTRUCTIVE METHODS OF LOCATING THE UTILITIES AS APPROVED BY THE COMMISSIONER OR BY HAND DIGGING.
- M. ALL EXCAVATING WITHIN FIVE (5) FEET EITHER SIDE OF EXISTING CABLES OR OTHER EXISTING UTILITY LINES MUST BE PERFORMED BY HAND OR BY VACUUM EXCAVATION METHODS, SUBJECT TO THE COMMISSIONER'S APPROVAL. COSTS FOR SUCH EXCAVATION WILL NOT BE PAID FOR SEPARATELY BUT CONSIDERED INCLUDED IN THE CONTRACT PRICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE PERFORMANCE OF THIS CONTRACT IS TO BE REPAIRED IMMEDIATELY BY THE CONTRACTOR TO THE SATISFACTION OF THE COMMISSIONER AND AT THE CONTRACTOR'S EXPENSE. DURING THE TIME THAT THE ABOVE TYPES OF CABLES OR UTILITY LINES ARE EXPOSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE WORK WILL BE SUSPENDED UNLESS OTHERWISE DIRECTED BY THE COMMISSIONER IN WRITING. THE CONTRACTOR MUST HALT ALL OPERATIONS UNTIL SERVICE IS RESTORED. THE CONTRACTOR WILL NOT BE ALLOWED TO MAKE CLAIMS FOR EXTRA COSTS OR TIME EXTENSIONS DUE TO SUCH STOPPAGE OF WORK.
- N. THE CONTRACTOR MUST PREPARE AND SUBMIT CONSTRUCTION SHOP DRAWINGS TO THE COMMISSIONER FOR APPROVAL, WHICH CLEARLY AND ACCURATELY DEPICT THE METHODS AND MEANS BY WHICH THE CONTRACTOR INTENDS TO PROTECT, SHORE, BRACE, OR OTHERWISE PROTECT UTILITIES WITHIN THE PROJECT SITE, CABLE SEWER, OR OTHER UTILITIES WITHIN THE PROJECT SITE.
- O. IN ACCORDANCE WITH THE GENERAL CONDITIONS, THE CONTRACTOR MUST NOT START ANY WORK WHICH MAY AFFECT EXISTING CITY, FAA, TELEPHONE UTILITY (E.C., AT&T), OR OTHER UTILITIES, INCLUDING BUT NOT LIMITED TO, WATER MAINS. THE CONTRACTOR HAS APPROVED SHOP DRAWINGS AND PROCEDURES FOR THE PROTECTION OF THE UTILITY.
- P. POWER CABLES, CONTROL CABLES AND FIBER OPTIC CABLES ARE LOCATED IN CONSTRUCTION AREAS. THE CONTRACTOR'S PERSONNEL MUST BECOME FAMILIAR WITH THESE CABLE AND FIBER LOCATIONS AND KEEP VEHICLES AND EQUIPMENT CLEAR OF THEM AT ALL TIMES. ADHERENCE TO AVIATION LOOKOUT/TAG-OUT PROCEDURES MUST BE STRICTLY FOLLOWED.
- Q. INTERRUPTION TO EXISTING AIRFIELD LIGHTING SYSTEMS NOT INCLUDED IN THIS PROJECT WILL NOT BE PERMITTED. THE CONTRACTOR WILL TEMPORARILY MAINTAIN ALL AIRFIELD LIGHTING CIRCUITS AFFECTED BY THIS PROJECT DURING OPERATIONAL PERIODS. ALL TEMPORARY EQUIPMENT AND CONSTRUCTION METHODS AND SCHEDULING FOR TEMPORARY AIRFIELD LIGHTING MUST BE SPECIFICALLY APPROVED BY THE COMMISSIONER.
- R. ALL ACTIVE AIRFIELD LIGHTING DAMAGED BY THE CONSTRUCTION OPERATIONS WILL BE REPAIRED OR REPLACED IMMEDIATELY BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
- S. COMED AND OTHER UTILITY OWNERS REQUIRE FULL ACCESS TO ALL OF THEIR FACILITIES AT ALL TIMES DURING ALL PHASES OF CONSTRUCTION.
- T. ALL OVERHEAD LINES IN THE PROJECT AREA OR ON DESIGNATED HAUL AND ACCESS ROADS MUST BE IDENTIFIED WITH WARNING SIGNS.

ABBREVIATIONS

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| ABV | ABOVE | ABOVE | AC | ACCESS CONTROL | ACRES | ADJ | ADJUST | AGG | AGGREGATE | AGS | AUXILIARY GAS VALVE | AMP | AMPERE | AOA | AIR OPERATIONS AREA | ARFF | AIRPORT RESCUE AND FIRE FIGHTING | ASR | AIRPORT SURVEILLANCE RADAR | ASTM | AMERICAN SOCIETY FOR TESTING AND MATERIALS | ATCT | AIR TRAFFIC CONTROL TOWER | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B/M | BOTTOM | BENCHMARK/BEAM | ¢ OR CL | CENTERLINE | CB | CATCH BASIN | CDA | CHICAGO DEPARTMENT OF AVIATION | CEC | COMBINED COMMON ELECTRICAL DUCT/BANK | CMH | COMMUNICATION MANHOLE | CMF | CORRUGATED METAL PIPE | COL | COLUMN | COMED | COMMONWEALTH EDISON | COMM | COMMUNICATIONS | CPRR | CANADIAN PACIFIC RAILROAD | CSD | CONSTRUCTION SETBACK DISTANCE | CVA | CONSTRUCTION VEHICLE INSPECTION AREA | C.Y. | CUBIC YARD | | | | | | | | | | | | | | | | | | | | | | |
| DET | DETAIL | DIA | DIAMETER | DUCTILE IRON PIPE | EH | ELECTRIC HAND-HOLE | EM | ELECTRIC MANHOLE | EDP | EDGE OF PAVEMENT | ESVCP | EXTRA STRENGTH VITRIFIED CLAY PIPE | EX | EXISTING | F | FACE | FAM | FEDERAL AVIATION ADMINISTRATION | FAR | FEDERAL AVIATION REGULATIONS | FES | FLARED END SECTION | FLR | FIRE HYDRANT | FLO | FLOOR | FOD | FOREIGN OBJECT DEBRIS | FOTS | FIBER OPTIC TRANSMISSION SYSTEM | FOUND OR FDN | FOUNDATION | FRP | FIBERGLASS REINFORCED POLYMER | FT | FEET | FTG | FOOTING | G OR GR | GRADE | GP | GUARD POST | GND OR GRND | GROUND | HH | HANDHOLE | HP | HIGH POINT | HV | HIGH VOLTAGE |
| EH | ELECTRIC HAND-HOLE | EM | ELECTRIC MANHOLE | EDP | EDGE OF PAVEMENT | ESVCP | EXTRA STRENGTH VITRIFIED CLAY PIPE | EX | EXISTING | F | FACE | FAM | FEDERAL AVIATION ADMINISTRATION | FAR | FEDERAL AVIATION REGULATIONS | FES | FLARED END SECTION | FLR | FIRE HYDRANT | FLO | FLOOR | FOD | FOREIGN OBJECT DEBRIS | FOTS | FIBER OPTIC TRANSMISSION SYSTEM | FOUND OR FDN | FOUNDATION | FRP | FIBERGLASS REINFORCED POLYMER | FT | FEET | FTG | FOOTING | G OR GR | GRADE | GP | GUARD POST | GND OR GRND | GROUND | HH | HANDHOLE | HP | HIGH POINT | HV | HIGH VOLTAGE | | | | | |
| PC | POINT OF CURVATURE | PCC | PORTLAND CEMENT CONCRETE PAVEMENT | PCL | PROPERTY LINE | PL | PROPERTY LINE | PO | POST OFFICE | PPVC | PERFORATED POLYVINYL CHLORIDE PIPE | PSI | POUNDS PER SQUARE INCH | PVC | POINT OF VERTICAL CURVATURE | PVC PIPE | PVC PIPE | PVT | POINT OF VERTICAL TANGENCY | RC | REINFORCED CONCRETE | RCP | REINFORCED CONCRETE PIPE | RGS | RIGID STEEL | RUNWAY | RUNWAY OBJECT FREE AREA | R/W | RIGHT OF WAY | RPP OR RP | REINFORCED POLYPROPYLENE | RSA | RUNWAY SAFETY AREA | SATCT | SOUTH AIR TRAFFIC CONTROL TOWER | SA | SANITARY | | | | | | | | | | | | | |
| PC | POINT OF CURVATURE | PCC | PORTLAND CEMENT CONCRETE PAVEMENT | PCL | PROPERTY LINE | PL | PROPERTY LINE | PO | POST OFFICE | PPVC | PERFORATED POLYVINYL CHLORIDE PIPE | PSI | POUNDS PER SQUARE INCH | PVC | POINT OF VERTICAL CURVATURE | PVC PIPE | PVC PIPE | PVT | POINT OF VERTICAL TANGENCY | RC | REINFORCED CONCRETE | RCP | REINFORCED CONCRETE PIPE | RGS | RIGID STEEL | RUNWAY | RUNWAY OBJECT FREE AREA | R/W | RIGHT OF WAY | RPP OR RP | REINFORCED POLYPROPYLENE | RSA | RUNWAY SAFETY AREA | SATCT | SOUTH AIR TRAFFIC CONTROL TOWER | SA | SANITARY | | | | | | | | | | | | | |
| UD OR LID. | UNDER DRAIN | UMH | UNDER DRAIN MANHOLE | UPRR | UNION PACIFIC RAILROAD | VCP | VITRIFIED CLAY PIPE | VERT. | VERTICAL | V.I.F. | VERIFY IN FIELD | VH | VERTICAL POINT OF INTERSECTION | WM | WATERS MAIN | WUS | WATERS OF THE UNITED STATES | YD | YARD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UD OR LID. | UNDER DRAIN | UMH | UNDER DRAIN MANHOLE | UPRR | UNION PACIFIC RAILROAD | VCP | VITRIFIED CLAY PIPE | VERT. | VERTICAL | V.I.F. | VERIFY IN FIELD | VH | VERTICAL POINT OF INTERSECTION | WM | WATERS MAIN | WUS | WATERS OF THE UNITED STATES | YD | YARD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



APPROVED AS WORKING PLAN

| REV | DATE | DESCRIPTION |
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| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME:

SHEET TITLE:
**REIRCULATION
BRIDGE REPLACEMENT**

ABBREVIATIONS

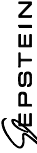
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| VI | DR | VI |

| PROJECT NO.: | DATE: |
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| H3073.15-00 | 02/21/19 |

| SHEET NO. | REVISION |
|-----------------|----------|
| G 01 008 | |



CHICAGO DEPARTMENT OF AVIATION
 O'HARE INTERNATIONAL AIRPORT
 CITY OF CHICAGO
 MANAGER, DEPARTMENT OF AVIATION
 JAVIER F. MANUEL
 JAMIE L. REE
 CONSULTANT



600 W. FULTON
 FLOOR 2000
 CHICAGO, ILL. 60641
 T: 312.454.9100 F: 312.259.1217

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LEGEND

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| — CECO — | — CECO — | — CECO — | — CECO — |
| — 650 — | — 650 — | — 650 — | — 650 — |
| — FAA — | — FAA — | — FAA — | — FAA — |
| — FAACED — | — FAACED — | — FAACED — | — FAACED — |
| — FO — | — FO — | — FO — | — FO — |
| — F — | — F — | — F — | — F — |
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| — 0 — | — 0 — | — 0 — | — 0 — |
| — SD — | — SD — | — SD — | — SD — |
| — SA — | — SA — | — SA — | — SA — |
| — ST — | — ST — | — ST — | — ST — |
| — FM — | — FM — | — FM — | — FM — |
| — SMS — | — SMS — | — SMS — | — SMS — |
| — W — | — W — | — W — | — W — |
| — XXX — | — XXX — | — XXX — | — XXX — |
| — TSA — | — TSA — | — TSA — | — TSA — |
| — TOFA — | — TOFA — | — TOFA — | — TOFA — |
| — FP — | — FP — | — FP — | — FP — |
| — RR — | — RR — | — RR — | — RR — |
| — RSA — | — RSA — | — RSA — | — RSA — |
| — ROFA — | — ROFA — | — ROFA — | — ROFA — |
| — BDW — | — BDW — | — BDW — | — BDW — |

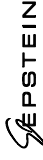
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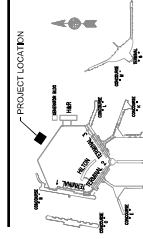
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CHICAGO INTERNATIONAL AIRPORT
CITY OF CHICAGO
PACKAGE SUBMITTAL DOCUMENT
PROJECT: BRIDGE REPLACEMENT OF AVIATION
HAYDEN EMANUEL
JAMIE L. RICE
CONSULTANT



600 W. FULTON
CHICAGO, IL 60607
T: 312.464.9100 E: 312.259.1217



APPROVED AS WORKING PLAN

| REV | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME: _____

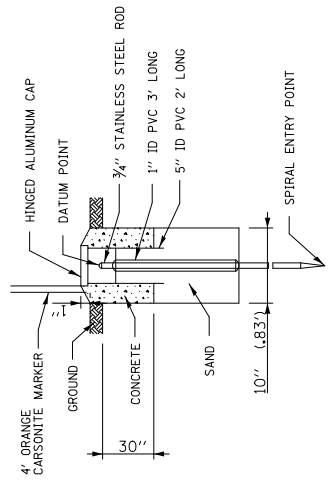
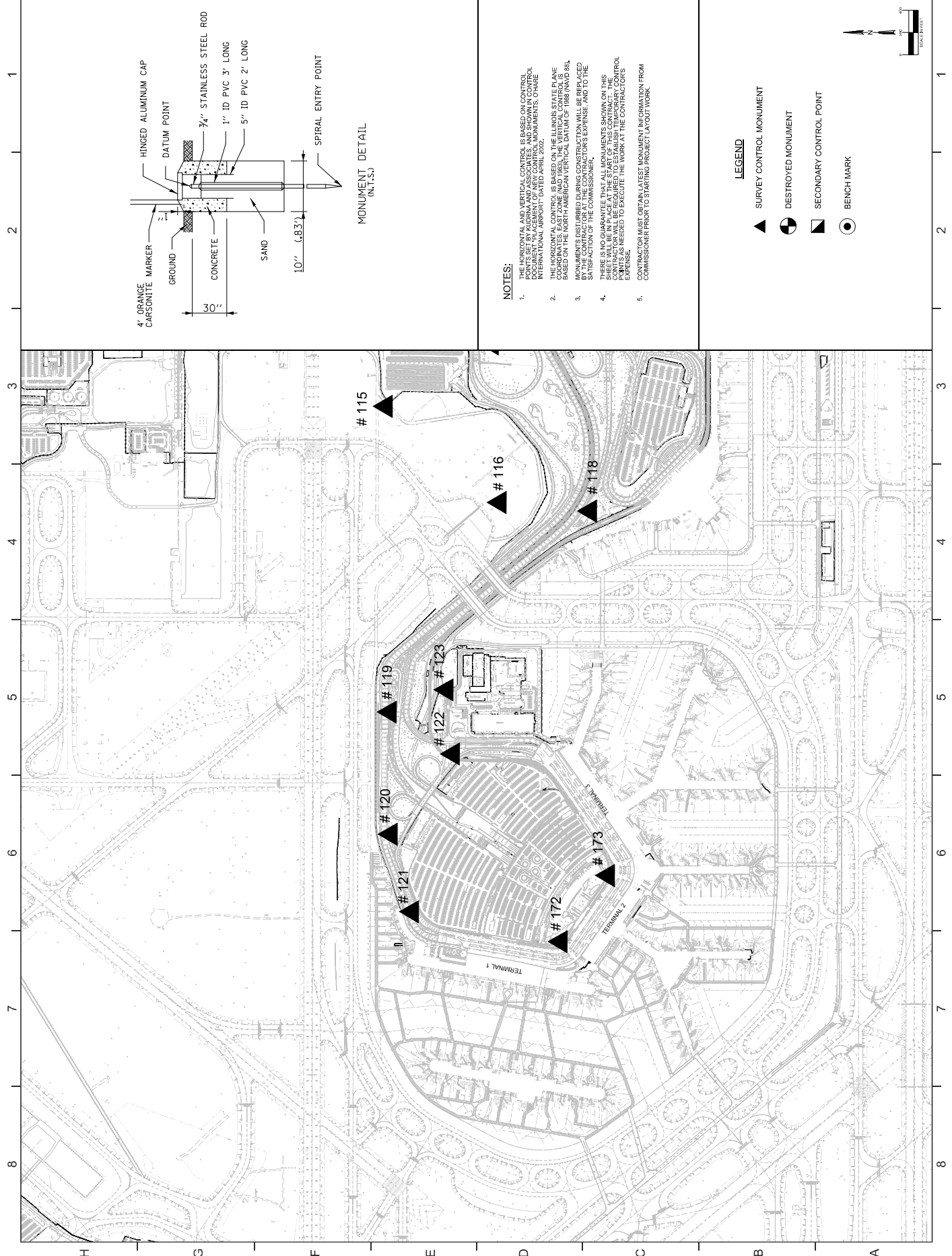
RECURRICATION
BRIDGE REPLACEMENT

PROJECT TITLE:
O'HARE SURVEY CONTROL
POINTS, MONUMENTS,
AND BENCHMARKS

DESIGNED: _____
DRAWN: _____
CHECKER: _____

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO. G01010
REVISION



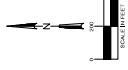
MONUMENT DETAIL
(IN U.S.)

NOTES:

1. THE HORIZONTAL AND VERTICAL CONTROL IS BASED ON CONTROL POINTS SHOWN ON THE LATEST AVAILABLE SURVEY DATA AND THE DOCUMENT PLACEMENT OF NEW CONTROL MONUMENTS, O'HARE INTERNATIONAL AIRPORT DATED APRIL 2008.
2. MONUMENTS SHOWN ON THIS SHEET ARE BASED ON THE MONUMENTS SHOWN ON THE SURVEY DATA AND THE DOCUMENT PLACEMENT OF NEW CONTROL MONUMENTS, O'HARE INTERNATIONAL AIRPORT DATED APRIL 2008.
3. MONUMENTS DISTURBED DURING CONSTRUCTION WILL BE REPLACED TO THE ORIGINAL LOCATION AND ELEVATION. THE REPLACEMENT MONUMENTS WILL BE PLACED AT THE CONTRACTOR'S EXPENSE, AND TO THE SATISFACTION OF THE COMMISSIONER.
4. THERE IS NO GUARANTEE THAT ALL MONUMENTS SHOWN ON THIS SHEET WILL BE IN PLACE AT THE START OF THIS CONTRACT. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL CONTROL POINTS AS NEEDED TO EXECUTE THE WORK AT THE CONTRACTOR'S EXPENSE.
5. CONTRACTOR MUST OBTAIN LATEST MONUMENT INFORMATION FROM COMMISSIONER PRIOR TO STARTING PROJECT LAYOUT WORK.

LEGEND

- ▲ SURVEY CONTROL MONUMENT
- DESTROYED MONUMENT
- ◼ SECONDARY CONTROL POINT
- ⊙ BENCHMARK

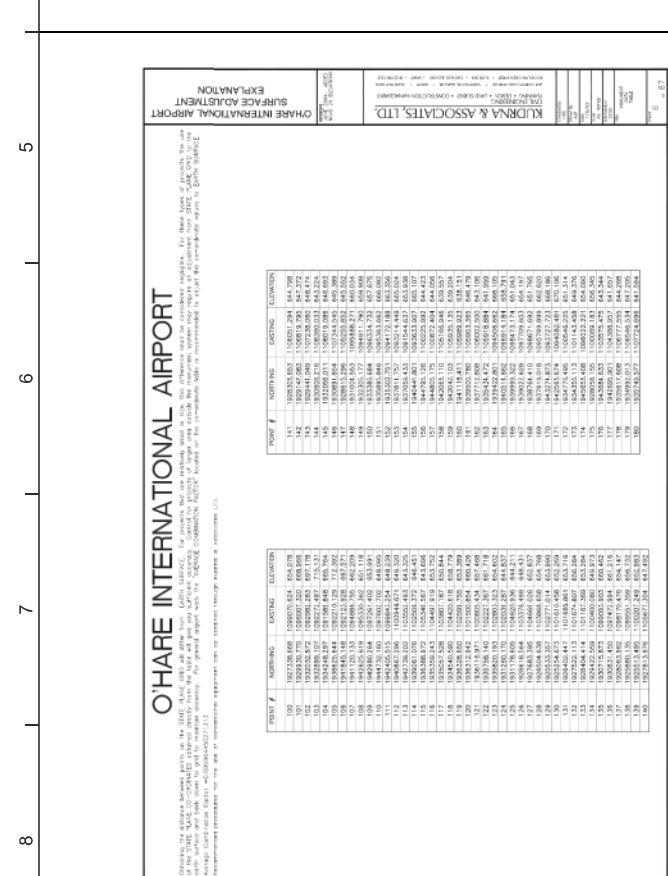
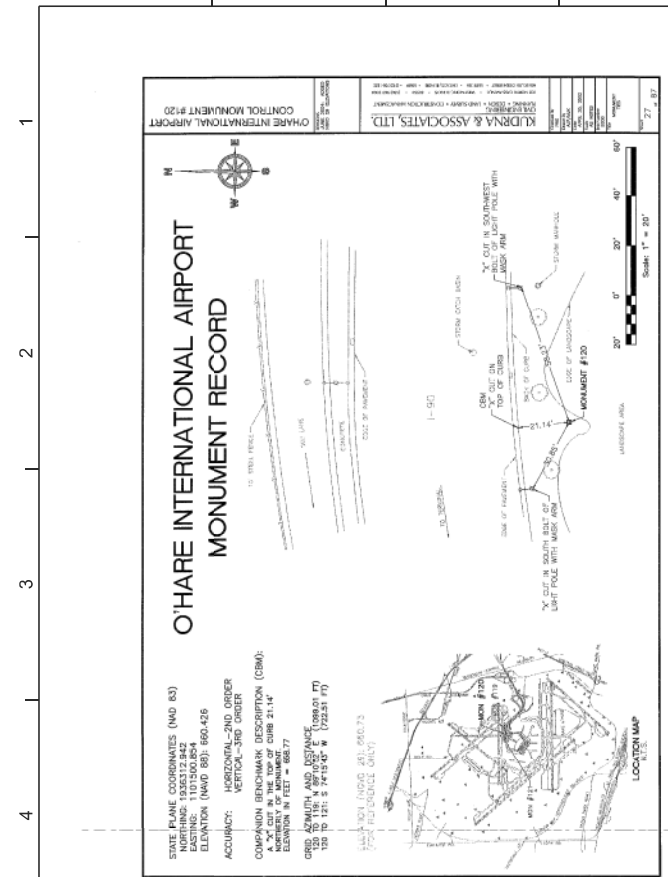


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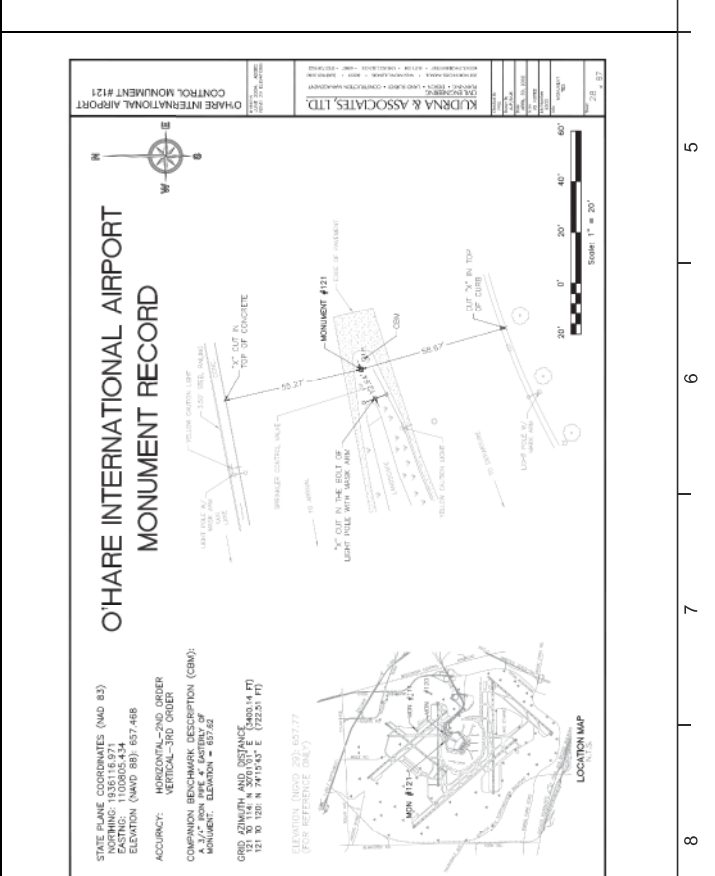
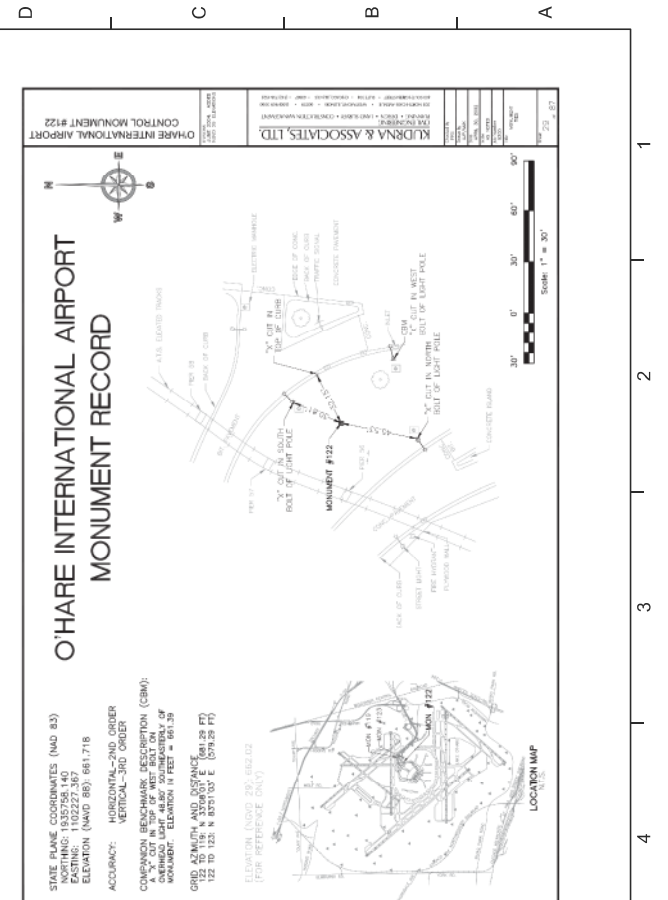
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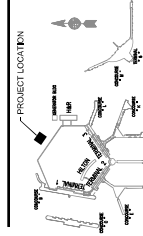


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| POINT # | NORTHING | EASTING | ELEVATION |
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APPROVED AS WORKING PLAN
EVA

| REV | DATE | DESCRIPTION |
|---------------|----------------|-------------|
| 02/21/19 | ISSUED FOR BID | |
| PROJECT NAME: | | |

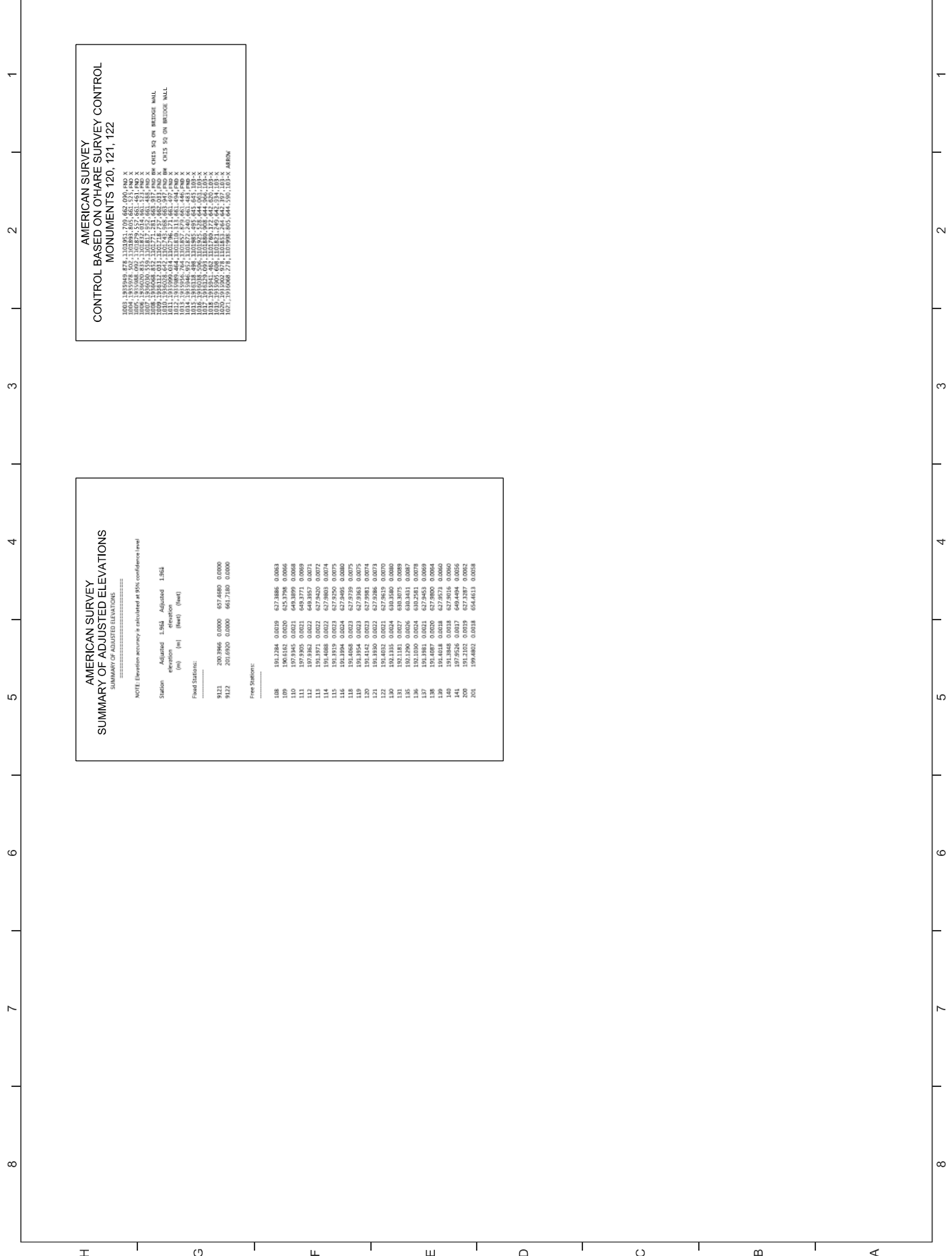
**REIRCULATION
BRIDGE REPLACEMENT**

**SHEET TITLE
O'HARE SURVEY CONTROL
POINTS, MONUMENTS,
AND BENCHMARKS**

DESIGNED: DRAWING: CHECKED:

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO.
G 01 012
REVISION



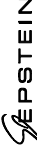
AMERICAN SURVEY CONTROL BASED ON O'HARE SURVEY CONTROL MONUMENTS 120, 121, 122

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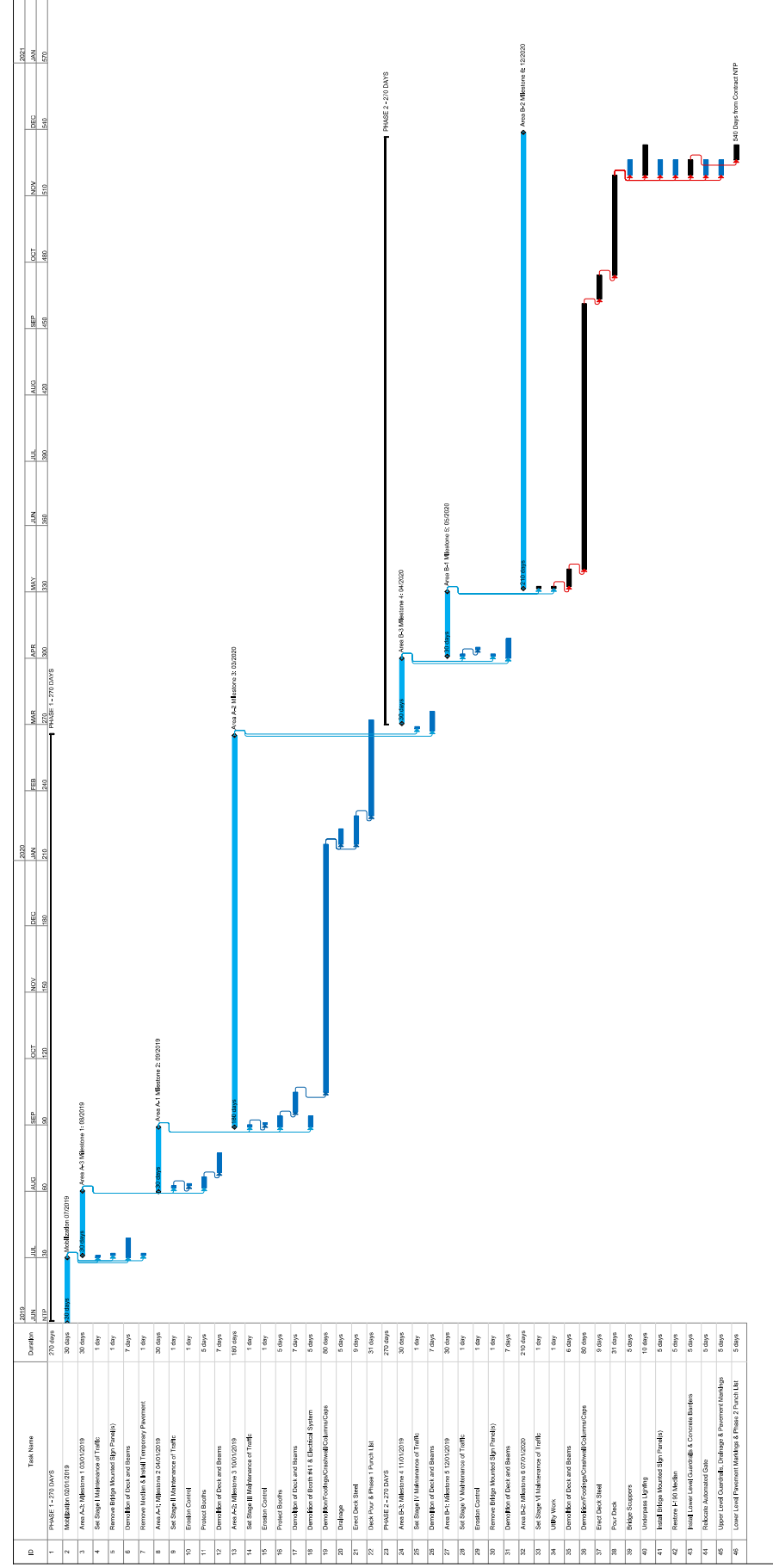
CHICAGO INTERNATIONAL AIRPORT
CITY OF CHICAGO
MANAGEMENT DEPARTMENT OF AVIATION
HAYWARD EMANUEL
JAMIE L. RIEE
CONSTRUCTION MANAGER

CONSULTANT



600 W. FULTON
CHICAGO, IL 60614
T: 312.454.9100 F: 312.558.1217

CONSTRUCTION PHASING SCHEDULE



NOTES:
1. THE CONSTRUCTION SCHEDULE ASSUMES NO WINTER SHUTDOWN PERIOD.
2. THE CONTRACTOR SHALL FACTOR INTO THE CONSTRUCTION SCHEDULE ANY UNUSUAL PERIODS OF RESTRICTIONS.

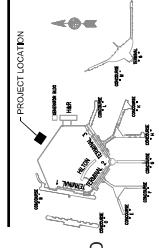
REWORK
BRIDGE REPLACEMENT

SHEET TITLE:
CONSTRUCTION PHASING SCHEDULE

DESIGNED: VI DRAWN: KH CHECKED: VI

PROJECT NO.: H3073.15-00 DATE: 02/21/19

SHEET NO. G 01 020 REVISION



APPROVED AS WORKING PLAN
REV

| REV | DATE | DESCRIPTION |
|--------|----------|----------------|
| 002119 | 02/21/19 | ISSUED FOR BID |

PROJECT DESCRIPTION OF WORK

- RECONSTRUCTION OF THE BRIDGE SUPERSTRUCTURE, SUPERSTRUCTURE, DECK REPLACEMENT AND UNDERPASS LIGHTING.
- ASSOCIATED LOWER AND UPPER LEVEL ROADWAY AND DRAINAGE IMPROVEMENTS.

PHASING NOTES AND RESTRICTIONS

- CONSTRUCTION ACTIVITIES MUST BE PERFORMED IN A MANNER THAT IS PLANNED FOR CONSTRUCTION AND AIRFIELD OPERATIONAL SAFETY WITHIN THE AIRPORT ROADWAYS. THE CONTRACTOR MUST FOLLOW THE CONSTRUCTION PHASING AS PRESENTED IN THESE DOCUMENTS AND USE THEM TO ENSURE SAFE AIRPORT OPERATIONS AND AIRFIELD SAFETY. THE CONTRACTOR IS NOT ALLOWED TO OPERATE ANY CONSTRUCTION EQUIPMENT WITHIN THE AIRPORT ROADWAYS UNLESS AN ALTERNATE CONSTRUCTION PHASING PLAN, CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) AND SAFETY PLAN COMPLIANCE DOCUMENT (SPCD).
- THE CONTRACTOR MUST NOTIFY AND OBTAIN APPROVAL FROM THE FAA THROUGH THE COMMISSIONER OF AVIATION AT LEAST SEVEN (7) DAYS EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO ENTERING EXISTING FAA FACILITIES TO PERFORM WORK OR INVESTIGATION. HOWEVER, THIS REQUEST DOES NOT GUARANTEE ACCESS TO FAA FACILITIES ON THE DATE REQUESTED.
- THE CONTRACTOR STAGING AND STORAGE AREAS MUST BE CONTAINED WITHIN THE ASSIGNED SPACE OF THE PREDETERMINED CITY OF CHICAGO PROPERTY USED FOR THAT PURPOSE AS SHOWN IN THE CONTRACT DRAWINGS OR AS DIRECTED BY THE COMMISSIONER.
- THE CONTRACTOR MUST ADHERE TO FAA FAR PART 138, FAA ADVISORY CIRCULAR 150/5375-2 (LATEST EDITION), AND SPECIFICATION M-103 WHEN WORKING WITHIN AIR OPERATIONS (AOA), ANY GRADING OR VIBRATION DISTURBANCE RESULTING FROM CONDITIONS AND MEET FAA FAR PART 138 STANDARDS.
- THERE WILL BE NO WINTER SUSPENSION PERIOD FOR THE CONTRACT. IN PREPARING THE CONTRACTOR'S BASELINE SCHEDULE, THE CONTRACTOR MUST REFLECT THIS.
- CONTRACTOR ACCESS TO THE PROJECT SITE WILL BE AS INDICATED ON CONTRACT DRAWINGS.
- THERE WILL BE NO COMPENSATION MADE TO THE CONTRACTOR FOR RESTRICTED AREAS BEING MADE AVAILABLE EARLIER THAN THE DURATIONS LISTED IN THE CONTRACT DOCUMENTS.
- WORK PERFORMED UNDER THIS CONTRACT MUST BE SEQUENCED IN ORDER TO ACCOMMODATE THE REQUIREMENTS OF OTHER PROJECTS AND CONTRACTORS, WHICH MAY INCLUDE WORK BY STANDARD PARKING FOR IMPROVEMENTS OF THE BOOTHS UNDER THE RECIRCULATION BRIDGE.
- APPURTENANCES WITHIN TWENTY-FIVE FEET (25FT.) OF AN ADA FACILITY, OR APPURTENANCES SHALL COOPERATE WITH THE CITY, AIRLINE TENANTS, OTHER CONTRACTORS AND THE CHICAGO DEPARTMENT OF AVIATION (CDIA) AND AIRLINE CONTRACTORS. THE CONTRACTOR MAY BE REQUIRED TO SHAPE WORK AREAS WITH OTHER CONTRACTORS.
- COMMONWEALTH EDISON (ComEd) MUST BE NOTIFIED SEVENTY-TWO HOURS (72HRS.) IN ADVANCE OF ANY CONSTRUCTION WITHIN TWENTY-FIVE FEET (25FT.) OF ANY ComEd INFRASTRUCTURE OR EQUIPMENT OR CONSTRUCTION OF ANY ComEd INFRASTRUCTURE OR FACILITIES PER THE CONTRACT DOCUMENTS. ComEd MAY BE NOTIFIED BY THE CONTRACTOR OR BY THE CHICAGO DEPARTMENT OF AVIATION (CDIA) IN CLOSE PROXIMITY TO ComEd INFRASTRUCTURE OR EQUIPMENT.
- THE CONTRACTOR MUST NOT MODIFY OR DETURB ANY LIVE ComEd FACILITIES UNLESS EXPLICIT APPROVAL IS RECEIVED FROM ComEd OR IN THE PRESENCE OF A ComEd REPRESENTATIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ComEd TO INCLUDE REMOVAL OF ComEd EQUIPMENT (TO INCLUDE, BUT NOT LIMITED TO TRANSFORMERS AND SWITCHGEAR OR SECTIONALIZERS), ANY TEMPORARY ComEd UTILITY RELOCATIONS NECESSARY FOR CONSTRUCTION WORK WILL BE THE CONTRACTOR'S RESPONSIBILITY (TO INCLUDE COST AND SCHEDULING).
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL UTILITY INSTALLATION COSTS, CONNECTION FEES, AND USAGE COSTS UNTIL THE DATE OF SUBSTANTIAL COMPLETION. AT SUBSTANTIAL COMPLETION, ALL UTILITY SERVICES WILL BE TRANSFERRED FROM THE CONTRACTOR.
- THE CONTRACTOR'S TRANSPORTING OF EQUIPMENT, MATERIALS, AND REMOVAL OF DEBRIS THRU THE TERMINAL ROADWAYS TO AND FROM THE WORK AREAS SHALL OCCUR BETWEEN THE HOURS ESTABLISHED BY THE COMMISSIONER.
- ANY WORK THE CONTRACTOR IS REQUIRED TO PERFORM AT NIGHT, AS SHOWN IN THE DRAWINGS OR AS DIRECTED BY THE COMMISSIONER, MUST ADHERE TO THE PART III TECHNICAL SPECIFICATIONS, SECTION N-100 NIGHT CONSTRUCTION. ALL NIGHT WORK PERFORMED BY THE CONTRACTOR, WILL BE AT NO ADDITIONAL COST TO THE CONTRACTOR.
- ALL MAINTENANCE OF TRAFFIC LANE CLOSURES ON THE RECIRCULATOR BRIDGE AND START OF BRIDGE RECONSTRUCTION IMPROVEMENTS.
- THE CONTRACTOR MUST PROVIDE ACCESS FOR STANDARD PARKING BOOTH OPERATORS TO THE PUBLIC RESTROOMS LOCATED UNDER THE BRIDGE STRUCTURE. ACCESS TO THE PUBLIC RESTROOMS MUST BE MAINTAINED AT ALL TIMES. THE CONTRACTOR MUST ALSO PROVIDE A MINIMUM OF TWO PORTABLE BATHROOMS TO BE PLACED WITHIN THE CONSTRUCTION WORK ZONES AT LOCATIONS DETERMINED BY THE COMMISSIONER.

PHASING NOTES AND RESTRICTIONS

- EXISTING FIRE TRUCK ACCESS THRU THE RECIRCULATION BRIDGE FROM AREA #3 BUILDING TO TERMINALS MUST BE MAINTAINED AND PROVIDED 24-HOURS A DAY AND THRU THE DURATION OF THE CONTRACT. FULL CLOSURE OF THE RECIRCULATION BRIDGE TRAVEL LANES WILL NOT BE PERMITTED WITHOUT APPROVAL FROM THE COMMISSIONER AND THE CHICAGO FIRE DEPARTMENT.
- THE CONCRETE BEAM ENDS AND PIERS ARE DETERIORATED AND TEMPORARY SHORING IS IN PLACE. DURING CONSTRUCTION, THE CONTRACTOR IS ADVISED TO AVOID ANY SHORING MATERIALS ON THE STRUCTURE AT ONE TIME.
- ERECTION OF THE STEEL BEAMS MUST OCCUR AS NIGHT TIME WORK AND DURING THE OFF PEAK PERIOD ESTABLISHED UNDER THIS CONTRACT.
- THE PARKING GARAGE PEAK PERIODS ARE:
 - PEAK ENTRANCE IS MONDAY FROM 4:30AM TO 11:00AM
 - PEAK EXIT IS TUESDAY THRU THURSDAY FROM 2:30PM TO 11:00PM

PHASE 1 - SEQUENCE OF WORK AND MILESTONES

MOBILIZATION:
COMPLETE MOBILIZATION DURING THE MOBILIZATION TIME PERIOD.

DESCRIPTION OF WORK
RESTRICTIONS ARE AS DESCRIBED IN THE PART 3 SPECIFICATION, SECTION M-101. MOBILIZATION.

SUBSTANTIAL COMPLETE MOBILIZATION 30 DAYS FROM NTP.

MILESTONE 1
THE WORK AREA IS AREA A-3 AND IS LOCATED ON THE EXISTING RECIRCULATOR BRIDGE SPAN 3 AND THE LOWER LEVEL ROADWAY UNDERNEATH BRIDGE SPAN 3.

DESCRIPTION OF WORK
MAINTENANCE OF TRAFFIC FOR STAGE I WORK ZONE.

THE WORK IN THE WORK AREAS LISTED GENERALLY INCLUDES, BUT IS NOT LIMITED TO, REMOVAL OF 10'x24' OUTBOUND BRIDGE MOUNT SIGN PANEL(S), REMOVAL OF EXISTING PARKING BOOTHS (SCAFFOLDING), SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED, REMOVE EACH BEAM FROM BEARING TO BEARING AND HAUL AWAY, REMOVE MEDIAN AND PLACE TEMPORARY PAVEMENT FOR TRAFFIC SHIFT.

RESTRICTIONS
THE PROJECT IS SUBJECT TO THE RESTRICTIONS LISTED ON THIS SHEET.

THE CONTRACTOR SHALL NOT MOVE INTO THE THE NEXT AREA OF WORK UNTIL THE MILESTONE 1 WORK IS COMPLETE.

COMPLETION OF MILESTONE 1
COMPLETE ALL WORK, EXCLUDING PUNCH LIST, IN AREA A-3 WITHIN 30 CALENDAR DAYS FROM MOBILIZATION.

MILESTONE 2
THE WORK AREAS ARE AREA A-1 AND IS LOCATED ON THE EXISTING RECIRCULATOR BRIDGE SPAN 1 AND LOWER LEVEL ROADWAY UNDERNEATH BRIDGE SPAN 1.

DESCRIPTION OF WORK
MAINTENANCE OF TRAFFIC FOR STAGE II WORK ZONE.

THE WORK IN THE WORK AREAS LISTED GENERALLY INCLUDES, BUT IS NOT LIMITED TO, DRAINAGE, ETC., PROTECT PARKING BOOTHS (SCAFFOLDING), SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED, REMOVE EACH BEAM FROM BEARING TO BEARING AND HAUL AWAY, INSTALL DRAINAGE PIPING AND STRUCTURES.

RESTRICTIONS
THE PROJECT IS SUBJECT TO THE RESTRICTIONS LISTED ON THIS SHEET.

THE CONTRACTOR SHALL NOT MOVE INTO THE THE NEXT AREA OF WORK UNTIL THE MILESTONE 2 WORK IS COMPLETE.

COMPLETION OF MILESTONE 2
COMPLETE ALL WORK, EXCLUDING PUNCH LIST, IN AREA A-1 WITHIN 30 CALENDAR DAYS FROM COMPLETION OF MILESTONE 1.

MILESTONE 3
THE WORK AREAS ARE AREA A-2 AND IS LOCATED ON THE EXISTING RECIRCULATOR BRIDGE SPAN 2 AND LOWER LEVEL ROADWAY UNDERNEATH BRIDGE SPAN 2.

DESCRIPTION OF WORK
MAINTENANCE OF TRAFFIC FOR STAGE III WORK ZONE.

THE WORK IN THE WORK AREAS LISTED GENERALLY INCLUDES, BUT IS NOT LIMITED TO, REMOVAL OF EXISTING BRIDGE UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.), PROTECT PARKING BOOTHS (SCAFFOLDING), SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED, REMOVE EACH BEAM FROM BEARING TO BEARING AND HAUL AWAY, REMOVE EXISTING SHORING TOWERS, DEMOLISH PIER 102/103 FOOTING, FORMPOUR PIERS 102/103 TO TOP OF FOOTING DECKS, CRASH WALL AND BOOTH ISLAND, FORMPOUR PIERS 102/103 COLUMNS, FORMPOUR PIERS 102/103 PIER CAP, ERECT STEEL OVER AREA A-2, ERECT STEEL OVER AREA A-1, ERECT STEEL OVER AREA A-3, INSTALL DECK FORMS, POUR CONCRETE DECK.

MILESTONE 3 (CONTINUED)

RESTRICTIONS
THE PROJECT IS SUBJECT TO THE RESTRICTIONS LISTED ON THIS SHEET.

AFTER ERECTION OF STEEL BEAMS, THE CONTRACTOR MUST OPEN ALL LOWER LEVEL LANES OF TRAFFIC FOR NORMAL OPERATIONS TO AND FROM THE PARKING GARAGE.

THE CONTRACTOR SHALL NOT MOVE INTO THE THE NEXT AREA OF WORK UNTIL THE MILESTONE 3 WORK IS COMPLETE.

COMPLETION OF MILESTONE 3
COMPLETE ALL WORK, EXCLUDING PUNCH LIST, IN AREAS A-1, A-2, AND A-3 WITHIN 180 CALENDAR DAYS FROM COMPLETION OF MILESTONE 2.

PHASE 2 - SEQUENCE OF WORK AND MILESTONES

MILESTONE 4
THE WORK AREAS ARE AREA B-2 AND IS LOCATED ON THE EXISTING RECIRCULATOR BRIDGE SPAN 3 AND THE LOWER LEVEL ROADWAY UNDERNEATH BRIDGE SPAN 3.

DESCRIPTION OF WORK
MAINTENANCE OF TRAFFIC FOR STAGE IV WORK ZONE.

THE WORK IN THE WORK AREA LISTED GENERALLY INCLUDES, BUT IS NOT LIMITED TO, REMOVAL OF EXISTING BRIDGE UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.), SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED, REMOVE EACH BEAM FROM BEARING TO BEARING AND HAUL AWAY.

RESTRICTIONS
THE PROJECT IS SUBJECT TO THE RESTRICTIONS LISTED ON THIS SHEET.

THE CONTRACTOR SHALL NOT MOVE INTO THE THE NEXT AREA OF WORK UNTIL THE MILESTONE 4 WORK IS COMPLETE.

COMPLETION OF MILESTONE 4
COMPLETE ALL WORK, EXCLUDING PUNCH LIST, IN AREA B-2 WITHIN 30 CALENDAR DAYS FROM COMPLETION OF MILESTONE 3.

MILESTONE 5
THE WORK AREAS ARE AREA B-1 AND IS LOCATED ON THE EXISTING RECIRCULATOR BRIDGE SPAN 1 AND LOWER LEVEL ROADWAY UNDERNEATH BRIDGE SPAN 1.

DESCRIPTION OF WORK
MAINTENANCE OF TRAFFIC FOR STAGE V WORK ZONE.

THE WORK IN THE WORK AREA LISTED GENERALLY INCLUDES, BUT IS NOT LIMITED TO, REMOVE EXISTING BRIDGE UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.), PROTECT PARKING BOOTHS (SCAFFOLDING), SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED, REMOVE EACH BEAM FROM BEARING TO BEARING AND HAUL AWAY.

RESTRICTIONS
THE PROJECT IS SUBJECT TO THE RESTRICTIONS LISTED ON THIS SHEET.

THE CONTRACTOR SHALL NOT MOVE INTO THE THE NEXT AREA OF WORK UNTIL THE MILESTONE 5 WORK IS COMPLETE.

COMPLETION OF MILESTONE 5
COMPLETE ALL WORK, EXCLUDING PUNCH LIST, IN AREA B-1 WITHIN 30 CALENDAR DAYS FROM COMPLETION OF MILESTONE 4.

MILESTONE 6
THE WORK AREAS ARE AREA B-2 AND IS LOCATED ON THE EXISTING RECIRCULATOR BRIDGE SPAN 2 AND LOWER LEVEL ROADWAY UNDERNEATH BRIDGE SPAN 2.

DESCRIPTION OF WORK
MAINTENANCE OF TRAFFIC FOR STAGE VI WORK ZONE.

THE WORK IN THE WORK AREAS LISTED GENERALLY INCLUDES, BUT IS NOT LIMITED TO, REMOVAL OF EXISTING BRIDGE UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.), PROTECT PARKING BOOTHS (SCAFFOLDING), SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED, REMOVE EACH BEAM FROM BEARING TO BEARING AND HAUL AWAY, REMOVE EXISTING SHORING TOWERS, DEMOLISH FORMPOUR PIERS 102/103 CRASH WALL AND BOOTH ISLAND, FORMPOUR PIERS 102/103 FOOTING, FORMPOUR PIERS 102/103 TO TOP OF FOOTING DECKS, CRASH WALL AND BOOTH ISLAND, FORMPOUR PIERS 102/103 COLUMNS, FORMPOUR PIERS 102/103 PIER CAP, ERECT STEEL OVER AREA B-2, ERECT STEEL OVER AREA B-1, ERECT STEEL OVER AREA B-3, INSTALL DECK FORMS, POUR CONCRETE DECK, INSTALL BRIDGE CUPPER CONNECTIONS, INSTALL UPPER LEVEL LIGHTING, RESTORE BRIDGE MOUNTED SIGN PANEL(S), RESTORE F-100 INBOUND MEDIAN, INSTALL MARKINGS, UNLOADED GATE SYSTEMS, RESTORE UPPER LEVEL GUARDRAIL EXTENSIONS, ROIDDING AND CLEANING OF UPPER LEVEL APPROACH SLAB CATCH BASINS

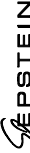
RESTRICTIONS
THE PROJECT IS SUBJECT TO THE RESTRICTIONS LISTED ON THIS SHEET.

AFTER ERECTION OF STEEL BEAMS, THE CONTRACTOR MUST OPEN ALL LOWER LEVEL LANES OF TRAFFIC FOR NORMAL OPERATIONS TO AND FROM THE PARKING GARAGE.

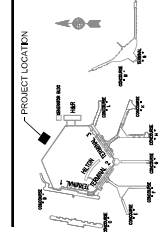
COMPLETION OF MILESTONE 6
COMPLETE ALL WORK, EXCLUDING PUNCH LIST, IN AREAS B-1, B-2, AND B-3 WITHIN 210 CALENDAR DAYS FROM COMPLETION OF MILESTONE 5 AND 540 CALENDAR DAYS FROM CONTRACT NTP.



CHICAGO DEPARTMENT OF AVIATION
O'HARE INTERNATIONAL AIRPORT
CITY OF CHICAGO
MANAGEMENT DEPARTMENT OF AVIATION
JAMES E. MANUEL
JAMIE L. REE
CONSULTANT



600 W. FULLTON
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APPROVED AS WORKING PLAN

| REV. | DATE | DESCRIPTION |
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| 02/21/10 | | ISSUED FOR BID |

PROJECT NAME:

RECORRELATION
BRIDGE REPLACEMENT

| DESIGNED: | DRAWN: | CHECKED: |
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| VI | VI | VI |

SHEET NO. PHASING GENERAL NOTES, MILESTONES AND RESTRICTIONS

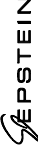
PROJECT NO.: H3075.1500
DATE: 02/21/10

SHEET NO. G 01 021
REVISED:



CHICAGO DEPARTMENT OF AVIATION
CHICAGO INTERNATIONAL AIRPORT
CITY OF CHICAGO
DIVISION OF AVIATION
FAVOR, EMANUEL
JAMIEL, RHEE
JOHNSON, CHARLES

CONSULTANT



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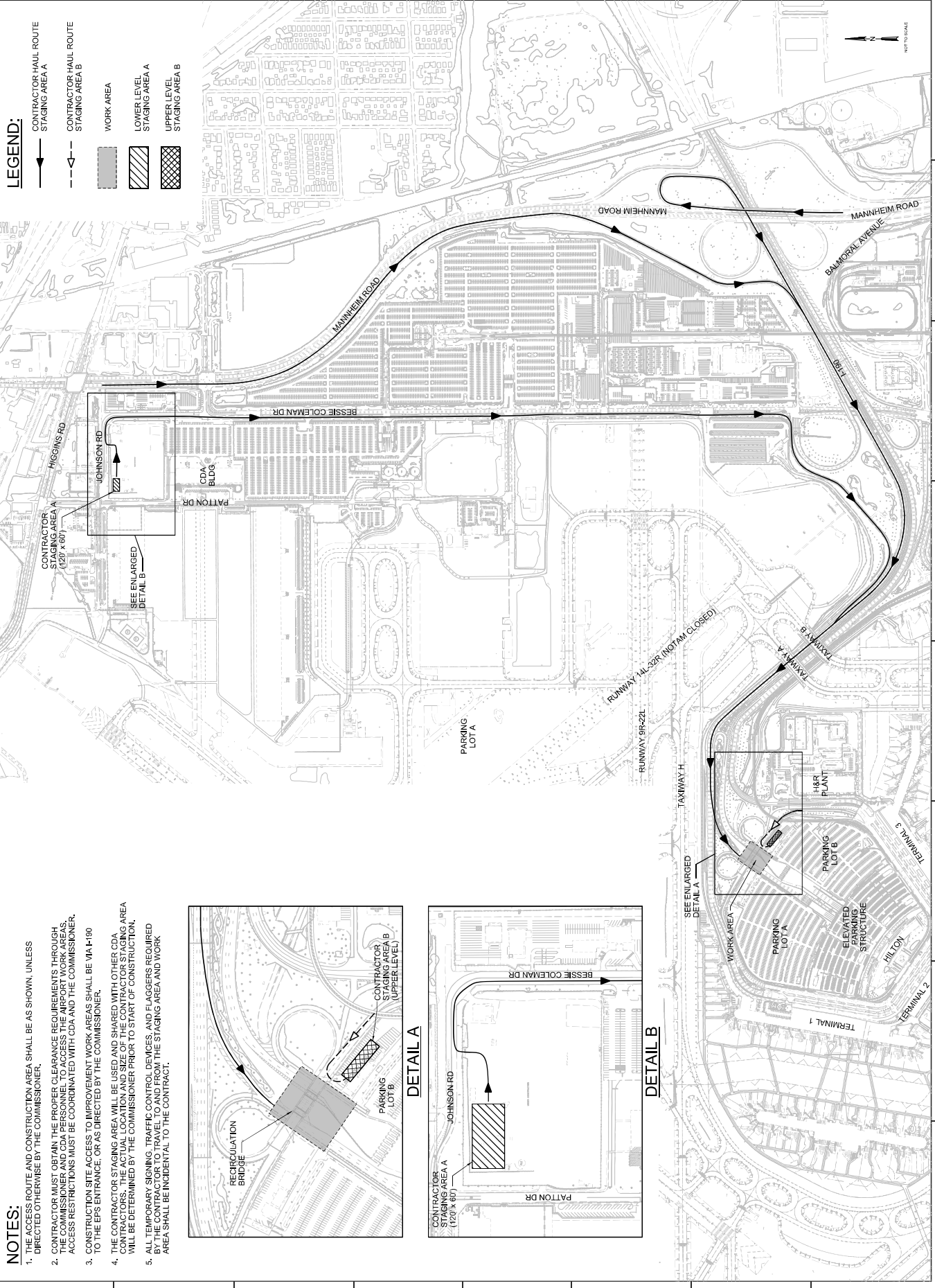
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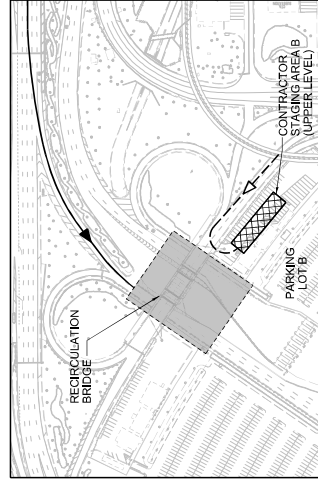
LEGEND:

- CONTRACTOR HAUL ROUTE STAGING AREA A
- CONTRACTOR HAUL ROUTE STAGING AREA B
- WORK AREA
- LOWER LEVEL STAGING AREA A
- UPPER LEVEL STAGING AREA B

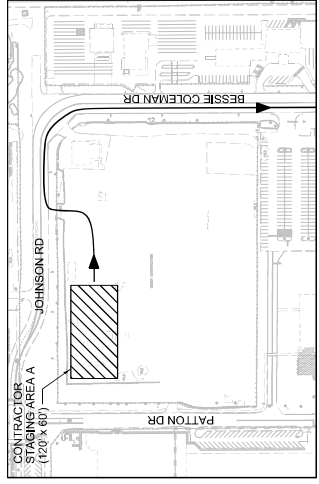


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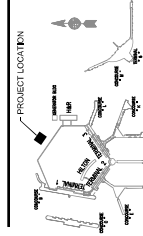
1. THE ACCESS ROUTE AND CONSTRUCTION AREA SHALL BE AS SHOWN, UNLESS DIRECTED OTHERWISE BY THE COMMISSIONER.
2. CONTRACTOR MUST OBTAIN THE PROPER CLEARANCE REQUIREMENTS THROUGH THE COMMISSIONER AND CDA PERSONNEL TO ACCESS THE AIRPORT WORK AREAS. ACCESS RESTRICTIONS MUST BE COORDINATED WITH CDA AND THE COMMISSIONER.
3. CONSTRUCTION SITE ACCESS TO IMPROVEMENT WORK AREAS SHALL BE VIA I-190 TO THE EPS ENTRANCE, OR AS DIRECTED BY THE COMMISSIONER.
4. THE CONTRACTOR STAGING AREA WILL BE USED AND SHARED WITH OTHER CDA CONTRACTORS. THE ACTUAL LOCATION AND SIZE OF THE CONTRACTOR STAGING AREA WILL BE DETERMINED BY THE COMMISSIONER PRIOR TO START OF CONSTRUCTION.
5. ALL TEMPORARY SIGNING, TRAFFIC CONTROL DEVICES, AND FLAGGERS REQUIRED BY THE CONTRACTOR TO TRAVEL TO AND FROM THE STAGING AREA AND WORK AREA SHALL BE INCIDENTAL TO THE CONTRACT.



DETAIL A



DETAIL B



APPROVED AS WORKING PLAN
BY:

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| 02/21/19 | ISSUED FOR BID |
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REORIENTATION
BRIDGE REPLACEMENT

PROJECT LOCATION PLAN
AND CONTRACTOR
ACCESS ROUTE

DESIGNED: VI DRAWN: DR CHECKED: VI

PROJECT NO.: H3074.15-00
DATE: 02/22/19

SHEET NO. G 01 022

REVISION

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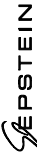
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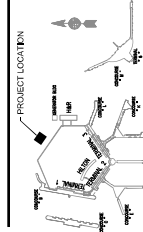
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CHICAGO INTERNATIONAL AIRPORT
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DEPARTMENT OF AVIATION
MANAGER: EMANUEL
JAMIE L. RICE
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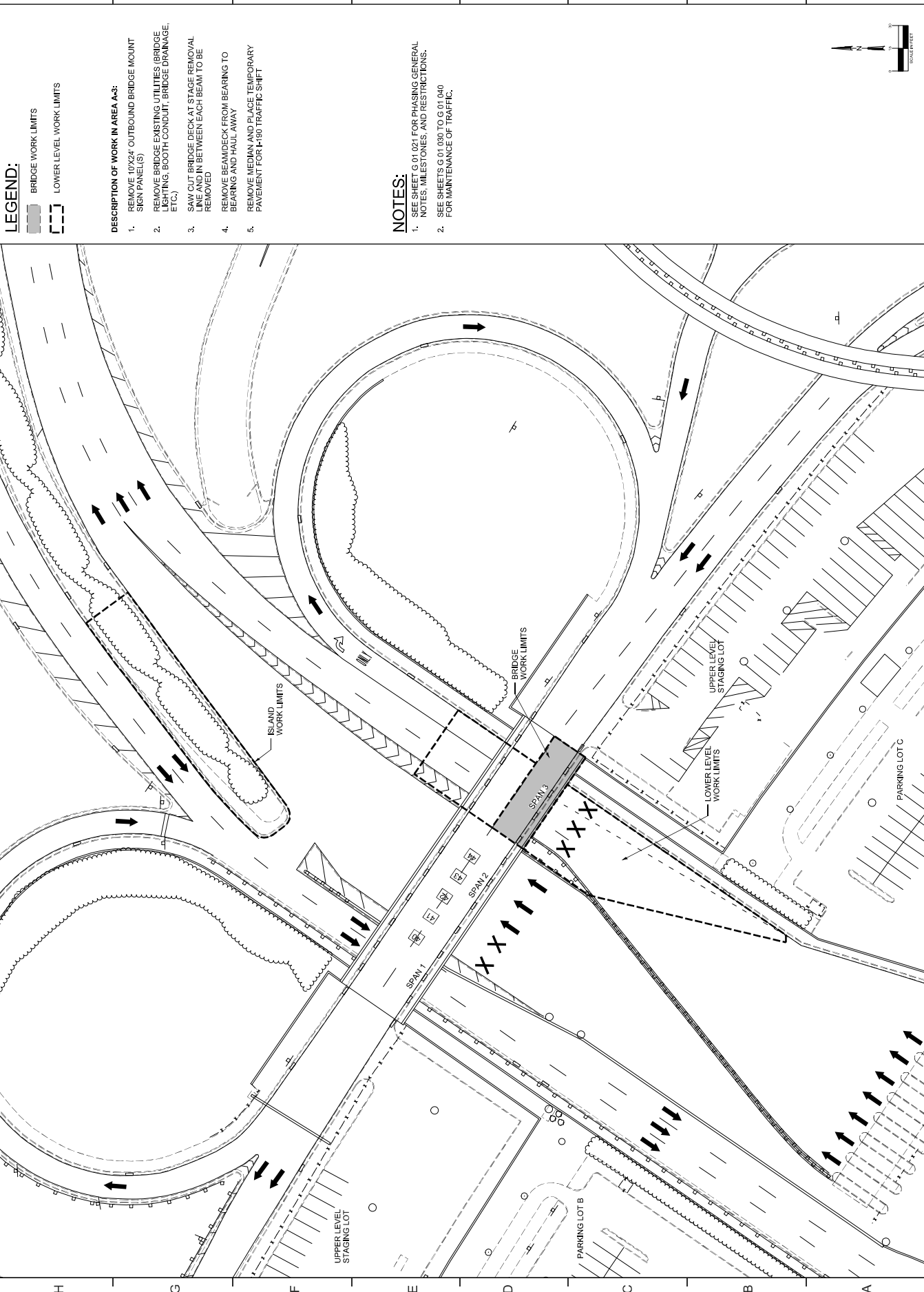
REIRCULATION
BRIDGE REPLACEMENT

CONSTRUCTION PHASING
PHASE 1
WORK AREA A-3

DESIGNED: VI
DRAWN: KH
CHECKED: VI

PROJECT NO.: H3075.15-00
DATE: 02/21/19

SHEET NO. G 01 023
REVISION

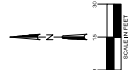


LEGEND:

- BRIDGE WORK LIMITS
- LOWER LEVEL WORK LIMITS

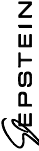
- DESCRIPTION OF WORK IN AREA A-3:**
- REMOVE 10'X24' OUTBOUND BRIDGE MOUNT SIGN PANEL(S)
 - REMOVE BRIDGE EXISTING UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.)
 - SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED
 - REMOVE BEAM/DECK FROM BEARING TO BEARING AND HAUL AWAY
 - REMOVE MEDIAN AND PLACE TEMPORARY PAVEMENT FOR H-190 TRAFFIC SHIFT

- NOTES:**
- SEE SHEET G 01 024 FOR PHASING GENERAL NOTES, MILESTONES, AND RESTRICTIONS.
 - SEE SHEETS G 01 030 TO G 01 040 FOR MAINTENANCE OF TRAFFIC.

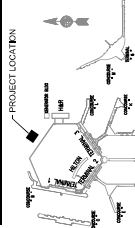




CHICAGO INTERNATIONAL AIRPORT
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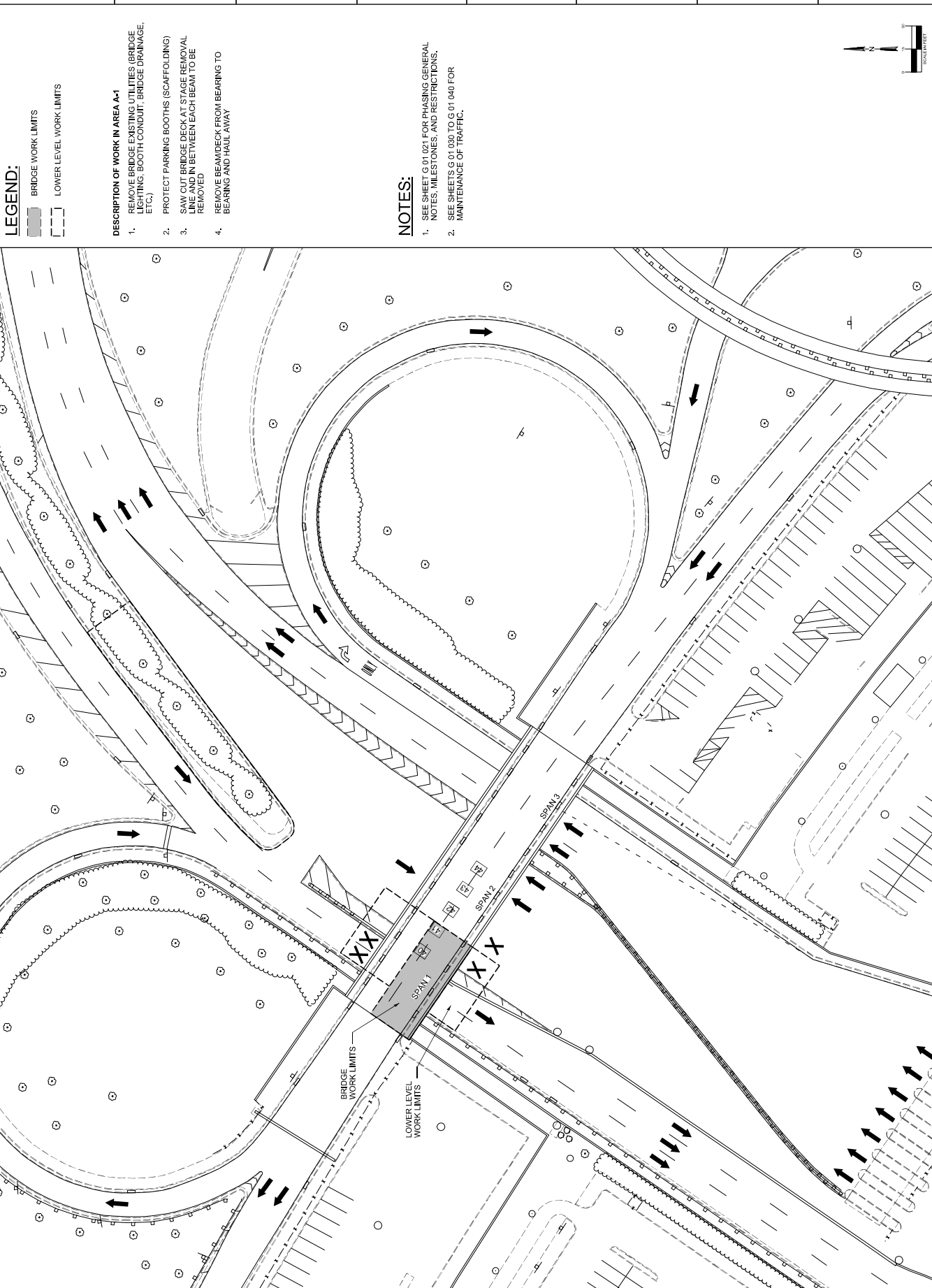
RECIROULATION
BRIDGE REPLACEMENT

PROJECT TITLE
CONSTRUCTION PHASING
PHASE 1
WORK AREA A-1

DESIGNED: VI DRAWN: KH CHECKED: VI

PROJECT NO.: H3075.15-00
DATE: 02/21/19

SHEET NO. G 01 024
REVISION:



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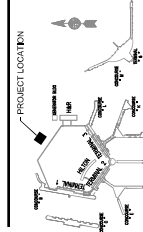
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CHICAGO INTERNATIONAL AIRPORT
 CITY OF CHICAGO
 DEPARTMENT OF AVIATION
 MANAGER, EMANUEL
 JAMIE L. RICE
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PROJECT NAME:

REIRCULATION
 BRIDGE REPLACEMENT

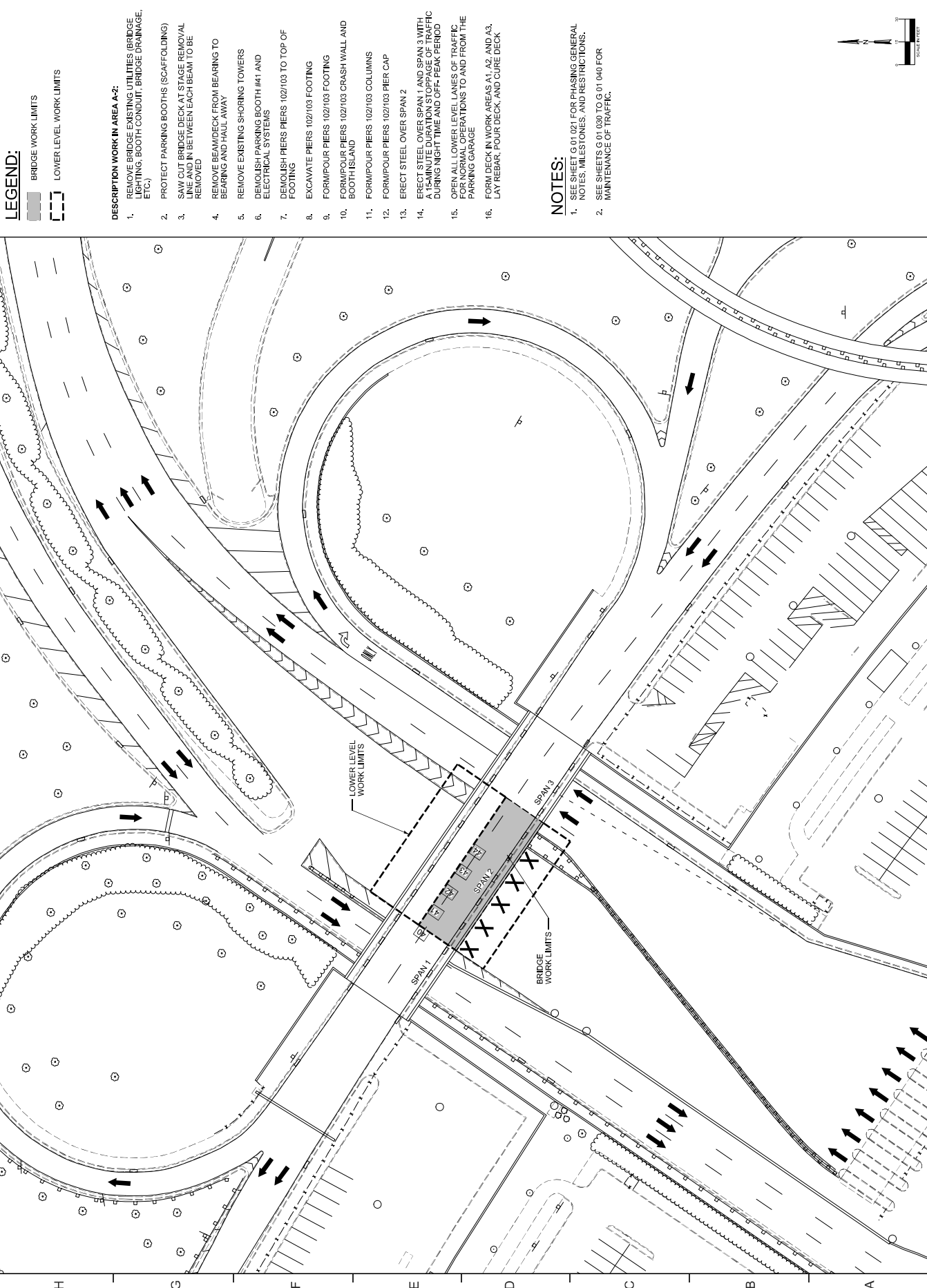
SHEET TITLE:
**CONSTRUCTION PHASING
 PHASE 1
 WORK AREA A-2**

DESIGNED: VI
 DRAWN: KH
 CHECKED: VI

PROJECT NO.: H3075.15-00
 DATE: 02/21/19

SHEET NO. **G 01 025**

REVISION



LEGEND:

- BRIDGE WORK LIMITS
- LOWER LEVEL WORK LIMITS

DESCRIPTION WORK IN AREA A-2:

1. REMOVE BRIDGE EXISTING UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.)
2. PROTECT PARKING BOOTHS (SCAFFOLDING)
3. SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED
4. REMOVE BEAM/DECK FROM BEARING TO BEARING AND HAUL AWAY
5. REMOVE EXISTING SHORING TOWERS
6. DEMOLISH PARKING BOOTH #A1 AND ELECTRICAL SYSTEMS
7. DEMOLISH PIERS 102/103 TO TOP OF FOOTING
8. EXCAVATE PIERS 102/103 FOOTING
9. FORMFOUR PIERS 102/103 FOOTING
10. FORMFOUR PIERS 102/103 CRASH WALL AND BOOTH ISLAND
11. FORMFOUR PIERS 102/103 COLUMNS
12. FORMFOUR PIERS 102/103 PIER CAP
13. ERECT STEEL OVER SPAN 2
14. ERECT STEEL OVER SPAN 1 AND SPAN 3 WITH FORMWORK AND SHORING IN PLACE DURING NIGHT TIME AND OFF-PEAK PERIOD
15. OPEN ALL LOWER LEVEL LANES OF TRAFFIC FOR NORMAL OPERATIONS TO AND FROM THE PARKING GARAGE
16. LAY REBAR, POUR DECK, AND CURE DECK

NOTES:

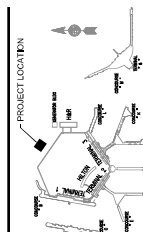
1. SEE SHEET G 01 021 FOR PHASING GENERAL NOTES, MILESTONES, AND RESTRICTIONS.
2. SEE SHEETS G 01 030 TO G 01 040 FOR MAINTENANCE OF TRAFFIC.



CHICAGO INTERNATIONAL AIRPORT
CITY OF CHICAGO
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T: 312.254.8100 F: 312.256.1217



APPROVED AS WORKING PLAN
BY:

| REV | DATE | DESCRIPTION |
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REIRCULATION
BRIDGE REPLACEMENT

SHEET TITLE:
CONSTRUCTION PHASING
PHASE 2
WORK AREA B-3

DESIGNED: VI
DRAWN: KH
CHECKED: VI

PROJECT NO.: H3075.15-00
DATE: 02/21/19
SHEET NO. G01 026
REVISION:

LEGEND:

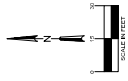
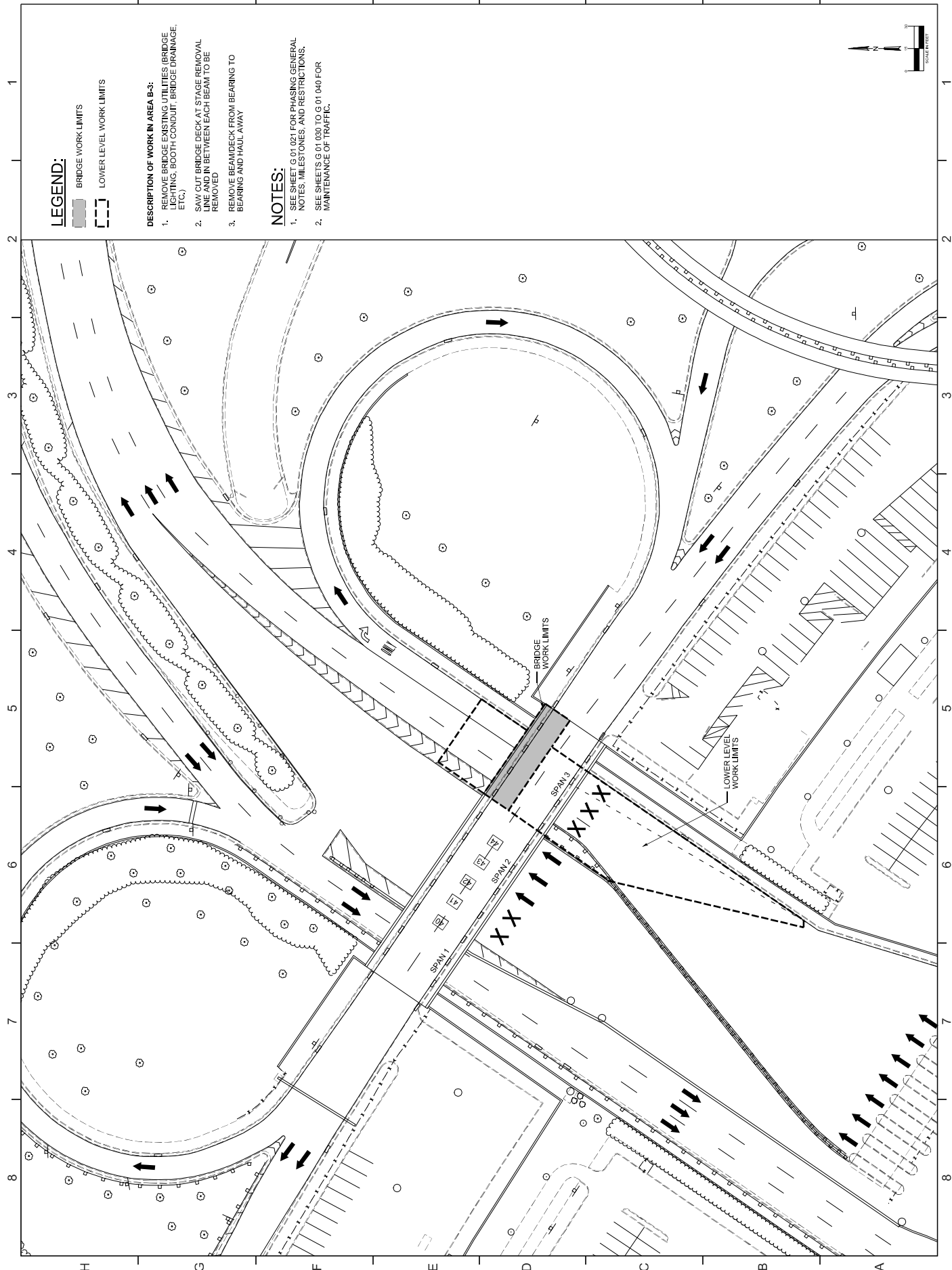
- BRIDGE WORK LIMITS
- LOWER LEVEL WORK LIMITS

DESCRIPTION OF WORK IN AREA B-3:

- REMOVE BRIDGE EXISTING UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.)
- SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED
- REMOVE BEAM/DECK FROM BEARING TO BEARING AND HAUL AWAY

NOTES:

- SEE SHEET G 01 021 FOR PHASING GENERAL NOTES, MILESTONES, AND RESTRICTIONS.
- SEE SHEETS G 01 003 TO G 01 040 FOR MAINTENANCE OF TRAFFIC.





CHICAGO DEPARTMENT OF AVIATION
OHARE INTERNATIONAL AIRPORT
CITY OF CHICAGO
 PACKAGE MANAGEMENT OF AVIATION
 HAYWARD EMANUEL
 JAMIE L. PREE

CONSULTANT

REPSTEIN

600 W. FULTON
 CHICAGO, ILL. 60605
 T. 312.464.9100 E. 312.258.1217

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LEGEND:

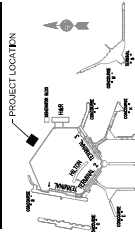
- BRIDGE WORK LIMITS
- LOWER LEVEL WORK LIMITS

DESCRIPTION OF WORK IN AREA B-1:

1. REMOVE BRIDGE EXISTING UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.)
2. PROTECT PARKING BOOTHS (SCAFFOLDING)
3. SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED
4. REMOVE BEAM/DECK FROM BEARING TO BEARING AND HAUL AWAY

NOTES:

1. SEE SHEET G 01 021 FOR PHASING GENERAL NOTES, MILESTONES, AND RESTRICTIONS.
2. SEE SHEETS G 01 030 TO G 01 040 FOR MAINTENANCE OF TRAFFIC.



APPROVED AS WORKING PLAN

| REV | DATE | DESCRIPTION |
|---------------|----------|----------------|
| 02/21/19 | 02/21/19 | ISSUED FOR BID |
| PROJECT NAME: | | |

REINFORCEMENT
 BRIDGE REPLACEMENT

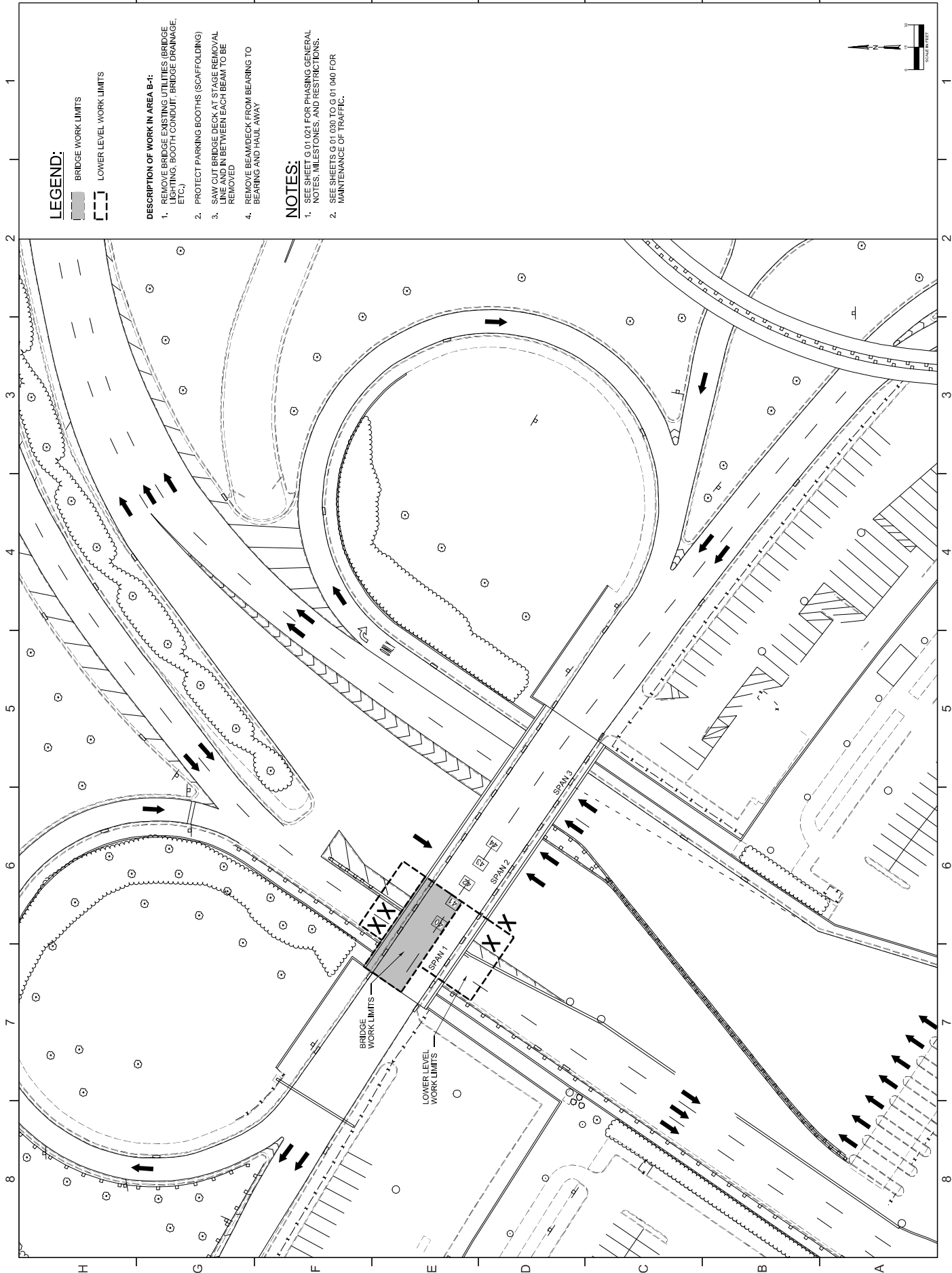
SHEET TITLE:
CONSTRUCTION PHASING
PHASE 2
WORK AREA B-1

DESIGNED: VI CHECKED: VI
 DRAWN: KH

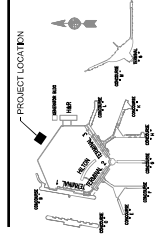
PROJECT NO.: H3075.15-00
 DATE: 02/21/19

SHEET NO.

G 01 027



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|---|----------------|
| PROJECT NO.: H3075.15-00 | |
| DATE: 02/21/19 | |
| DESIGNED: VI | CHECKED: VI |
| DRAWN: KH | DATE: 02/21/19 |
| PROJECT NAME: REIRCULATION BRIDGE REPLACEMENT | |
| SHEET TITLE: CONSTRUCTION PHASING PHASE 2 WORK AREA B-2 | |
| SHEET NO.: | REVISION: |
| G 01 028 | |



APPROVED AS WORKING PLAN

| REV | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |

- LEGEND:**
- BRIDGE WORK LIMITS
 - LOWER LEVEL WORK LIMITS
- DESCRIPTION OF WORK IN AREA B-2:**
- REMOVE BRIDGE EXISTING UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.)
 - PROTECT PARKING BOOTHS (SCAFFOLDING)
 - SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED
 - REMOVE BEAM/DECK FROM BEARING TO BEARING AND HAUL AWAY
 - REMOVE EXISTING SHORING TOWERS
 - DEMOLISH PIERS 102/103 TO TOP OF FOOTING
 - EXCAVATE PIERS 102/103 FOOTING
 - FORMPOUR PIERS 102/103 FOOTING
 - FORMPOUR PIERS 102/103 CRASH WALL AND BOOTH ISLAND
 - FORMPOUR PIERS 102/103 COLUMNS
 - FORMPOUR PIERS 102/103 PIER CAP
 - ERECT STEEL OVER SPAN 2
 - ERECT STEEL OVER SPAN 1 AND SPAN 3 WITH A BEAM OVER EACH SPAN TO SUPPORT TRAFFIC DURING NIGHT TIME AND OFF-PEAK PERIOD
 - OPEN ALL LOWER LANES OF TRAFFIC FOR NORMAL OPERATIONS TO AND FROM PARKING GARAGE
 - FORM DECK IN WORK AREAS A1, A2 AND A3. LAY REBAR, POUR DECK, AND CURE DECK CONNECTIONS
 - INSTALL BRIDGE SCUPPER
 - INSTALL UNDERPASS LIGHTING
 - RESTORE BRIDGE MOUNT SIGN PANEL(S)
 - RESTORE L490 MEDIUM AND LANDSCAPING
 - INSTALL LOWER LEVEL CONCRETE BARRIERS AND GUARDRAIL
 - RESTORE LOWER LEVEL PAVEMENT MARKINGS
 - RELOCATE AUTOMATED GATE SYSTEM EXTENSIONS
 - INSTALL UPPER LEVEL GUARDRAIL
 - RODDING AND CLEANING OF UPPER LEVEL APPROACH SLAB CATCH BASIN

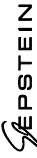
- NOTES:**
- SEE SHEET G 01 021 FOR PHASING GENERAL NOTES, MILESTONES, AND RESTRICTIONS.
 - SEE SHEETS G 01 030 TO G 01 040 FOR MAINTENANCE OF TRAFFIC.





CHICAGO INTERNATIONAL AIRPORT
CITY OF CHICAGO
PACKAGE SUBMITTAL DOCUMENT OF AVIATION
PROJECT NO. 150001
DATE: 02/21/19
DESIGNED BY: JAVIER F. MANUEL
DRAWN BY: JAVIER F. MANUEL
CHECKED BY: JAVIER F. MANUEL
APPROVED BY: JAVIER F. MANUEL

CONSULTANT



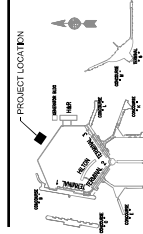
600 W. FULTON
CHICAGO, IL 60609
T: 312.464.9100 F: 312.258.1217

LEGEND:

WORK AREA

PART 77 SURFACE
CONTOUR ELEVATION

..... 720



APPROVED AS WORKING PLAN

| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |

REINFORCEMENT
BRIDGE REPLACEMENT

SHEET TITLE:

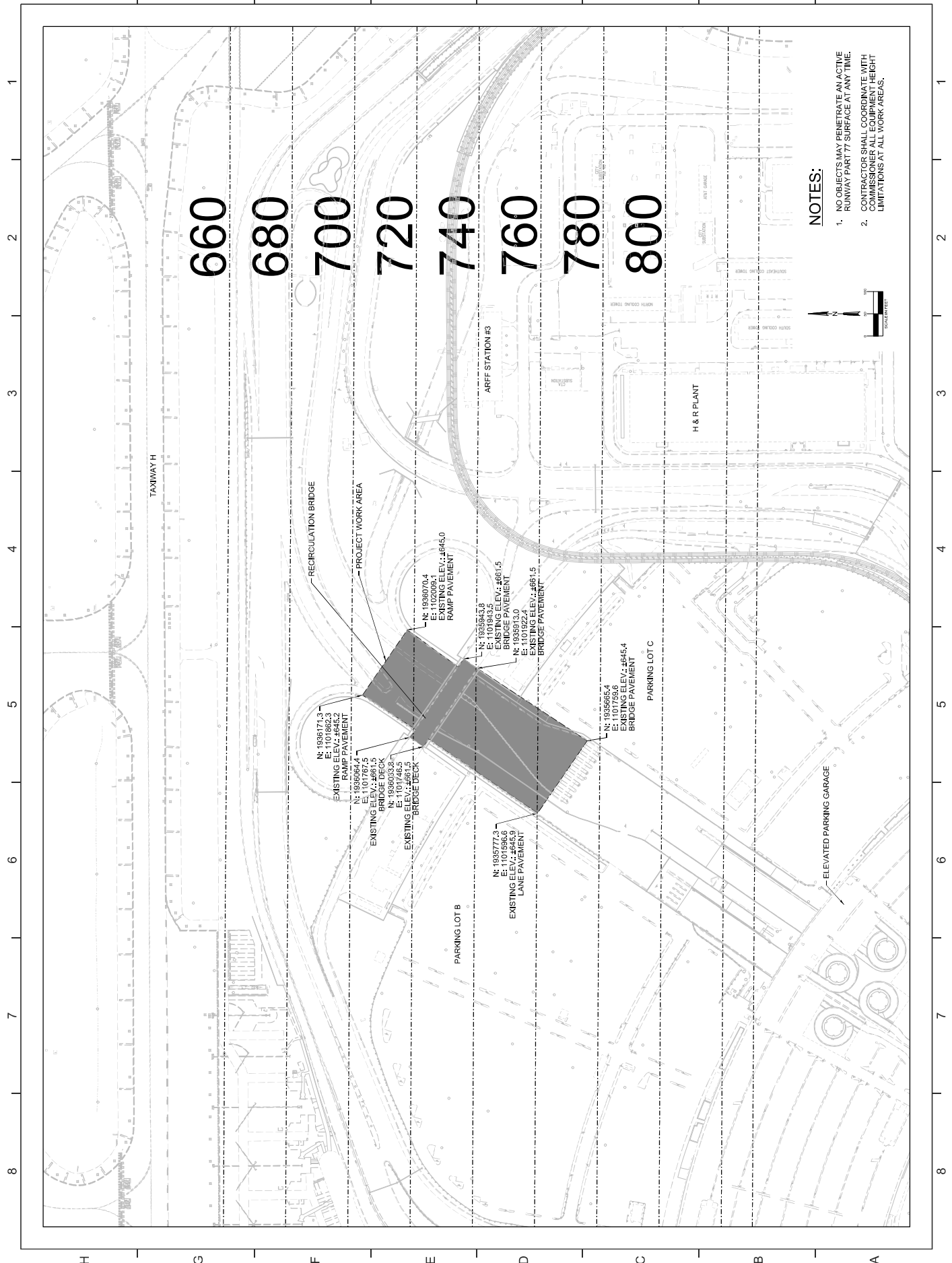
FAR PART 77
CRITICAL ELEVATIONS

DESIGNED: VI
DRAWN: KH
CHECKED: VI

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO. 1
REVISION

G 01 029



NOTES:

1. NO OBJECTS MAY PENETRATE AN ACTIVE RUNWAY PART 77 SURFACE AT ANY TIME.
2. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE HEIGHT LIMITATIONS AT ALL WORK AREAS.



PHASE 2 - STAGE V (WORK AREA B-1)

TRAFFIC

1. CLOSE RECIRCULATION BRIDGE TO ONE WESTBOUND LANE OF TRAVEL. APPROACH AND DEPARTURE MOVEMENTS ON BRIDGE REMAIN.
2. CLOSE ENTRANCE LANES TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/VALETHOURLY PARKING.
3. CONVERT TOLL BOOTH #2 TO ENTRY ACCESS TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/VALETHOURLY PARKING.
4. CONSTRUCT LANE SHIFT OF MEDIAN ISLAND MODIFICATION FOR ENTRANCE TO CONVERTED TOLL BOOTH #2.

CONSTRUCTION

1. REMOVE BRIDGE EXISTING UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.).
2. PROTECT PARKING BOOTHS (SCAFFOLDING).
3. SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED.
4. REMOVE BEAM/DECK FROM BEARING TO BEARING AND HAUL AWAY.

PHASE 2 - STAGE VI (WORK AREA B-2)

TRAFFIC

1. CLOSE RECIRCULATION BRIDGE TO ONE WESTBOUND LANE OF TRAVEL. APPROACH AND DEPARTURE MOVEMENTS ON BRIDGE REMAIN.
2. CLOSE TOLL BOOTHS 40 TO 44.
3. ENTRANCE LANES TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/VALETHOURLY PARKING REMAIN.

CONSTRUCTION

1. REMOVE BRIDGE EXISTING UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.).
2. PROTECT PARKING BOOTHS (SCAFFOLDING)
3. SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED
4. REMOVE BEAM/DECK FROM BEARING TO BEARING AND HAUL AWAY
5. REMOVE EXISTING SHORING TOWERS
6. DEMOLISH PIERS PIERS 102/103 TO TOP OF FOOTING
7. DEMOLISH PIERS 102/103 FOOTING
8. FORM/POUR PIERS 102/103 COLUMNS
9. FORM/POUR PIERS 102/103 PIER CAP
10. FORM/POUR PIERS 102/103 COLUMNS
11. FORM/POUR PIERS 102/103 PIER CAP
12. ERECT STEEL OVER SPAN 2

PHASE 1 - STAGE II (WORK AREA A-1) - CONT.

CONSTRUCTION

1. REMOVE BRIDGE EXISTING UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.).
2. PROTECT PARKING BOOTHS (SCAFFOLDING).
3. SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED.
4. REMOVE BEAM/DECK FROM BEARING TO BEARING AND HAUL AWAY.

PHASE 1 - STAGE III (WORK AREA A-2)

TRAFFIC

1. CLOSE RECIRCULATION BRIDGE TO ONE WESTBOUND LANE OF TRAVEL. APPROACH AND DEPARTURE MOVEMENTS ON BRIDGE REMAIN.
2. CLOSE TOLL BOOTHS 40 TO 44.
3. ENTRANCE LANES TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/VALETHOURLY PARKING REMAIN.

CONSTRUCTION

1. REMOVE BRIDGE EXISTING UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.).
2. PROTECT PARKING BOOTHS (SCAFFOLDING)
3. SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED
4. REMOVE BEAM/DECK FROM BEARING TO BEARING AND HAUL AWAY
5. REMOVE EXISTING SHORING TOWERS
6. DEMOLISH PARKING BOOTH #41 AND ELECTRICAL SYSTEMS
7. DEMOLISH PIERS PIERS 102/103 TO TOP OF FOOTING
8. EXCAVATE PIERS 102/103 FOOTING
9. FORM/POUR PIERS 102/103 FOOTING
10. FORM/POUR PIERS 102/103 CRASH WALL AND BOOTH ISLAND
11. FORM/POUR PIERS 102/103 COLUMNS
12. FORM/POUR PIERS 102/103 PIER CAP
13. ERECT STEEL OVER SPAN 2
14. FULL TRAFFIC OPEN UNDERNEATH BRIDGE SPANS 1 AND 3 WITH 15 MINUTE DURATION STOPPAGE OF TRAFFIC TO ALLOW CONSTRUCTION ACTIVITY AT UPPER LEVEL FOR:
 1. ERECT STEEL OVER SPAN 1
 2. ERECT STEEL OVER SPAN 3
15. OPEN ALL LOWER LEVEL LANES OF TRAFFIC FOR NORMAL OPERATIONS TO AND FROM THE PARKING GARAGE
16. FORM DECK IN WORK AREAS A1, A2, AND A3. LAY REBAR, POUR DECK, AND CURE DECK

PHASE 2 - STAGE IV (WORK AREA B-3)

TRAFFIC

1. CLOSE RECIRCULATION BRIDGE TO ONE WESTBOUND LANE OF TRAVEL. APPROACH AND DEPARTURE MOVEMENTS ON BRIDGE REMAIN.
2. CLOSE ALL 3 ACCESS LANES UNDER BRIDGE TRAVELING FROM TOLL BOTH EXITS 31-38.
3. CONVERT TOLL BOOTHS 42, 43 AND 44 TO ACCESS LANES FOR TOLL BOOTH EXITS 31-38.
4. SURFACE LOT B AND LEVEL 2 EXIT LANE TO TOLL BOOTHS 31 AND 32 REMAIN AND USE NEW AUTOMATED GATE BY OTHERS.
5. ENTRANCE LANES TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/VALETHOURLY PARKING REMAIN.

CONSTRUCTION

1. REMOVE EXISTING UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.).
2. SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED.
3. REMOVE BEAM/DECK FROM BEARING TO BEARING AND HAUL AWAY.

GENERAL MAINTENANCE OF TRAFFIC NOTES

1. THE CONTRACTOR SHALL COORDINATE TRAFFIC CONTROL AND PROTECTION OF THIS PROJECT WITH OTHER CDA PROJECTS.
2. DURING THE PEAK PERIOD RESTRICTIONS LISTED ON SHEET G 01 021 (NOTE 21), THE CONTRACTOR WILL NOT BE PERMITTED TO SET TRAFFIC CONTROL, IMPACT BEARING, OR PERFORM ANY OTHER WORK OUTSIDE OF THE BARRICADED WORK AREA.
3. FOR DETAILS OF STANDARD LANE AND SHOULDER CLOSURES, SEE IDOT STANDARDS ON SHEETS G 01 042 AND G 01 043. ADDITIONAL REQUIREMENTS FOR CONSTRUCTION NOTATION CAN BE FOUND IN SECTION 701 OF IDOT STANDARD SPECIFICATIONS.
4. ALL TRAFFIC CONTROL DEVICES USED FOR THE TRAFFIC CONTROL AND PROTECTION OF THIS PROJECT SHALL BE MAINTAINED AND REPOSITIONED PER THE SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.
5. ALL DRUMS, VERTICAL PANELS AND BARRICADES PLACED IMMEDIATELY ADJACENT TO MONO-DIRECTIONAL LANES WILL BE EQUIPPED WITH STEADY BURN ADVANCE OF BEGINNING WORK.
6. THE CONTRACTOR SHALL CONTACT CDA AND STANDARD PARKING 72 HOURS IN ADVANCE OF BEGINNING WORK.
7. ALL EXISTING SIGNS MUST BE MAINTAINED OR COVERED BASED ON CONSTRUCTION STAGING NEEDS OR AS DIRECTED BY THE COMMISSIONER.
8. ANY CLOSURE OF THE ROADWAYS BY THE CONTRACTOR SHALL BE REPORTED TO THE CHICAGO COMMUNICATIONS CENTER (CCC) FIRE DESK (773-364-6800) EACH TIME THE ROAD CLOSURES AND REOPENS. IF CLOSED MULTIPLE DAYS, THE OCC SHOULD BE REMINDED OF THE CLOSURE EACH MORNING BETWEEN 0700 HOURS AND 0800 HOURS.

PRE-STAGE

CONSTRUCTION

1. COMPLETE ALL MOBILIZATION DURING THIS PRE-STAGE PERIOD.

PHASE 1 - STAGE I (WORK AREA A-3)

TRAFFIC

1. CLOSE RECIRCULATION BRIDGE TO ONE WESTBOUND LANE OF TRAVEL. APPROACH AND DEPARTURE MOVEMENTS ON BRIDGE REMAIN.
2. CLOSE ALL 3 ACCESS LANES UNDER BRIDGE TRAVELING FROM TOLL BOTH EXITS 31-38.
3. CONVERT TOLL BOOTHS 42, 43 AND 44 TO ACCESS LANES FOR TOLL BOOTH EXITS 31-38.
4. SURFACE LOT B AND LEVEL 2 EXIT LANE REMAIN, BUT USE NEW AUTOMATED GATE BY OTHERS.
5. ENTRANCE LANES TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/VALETHOURLY PARKING REMAIN.

CONSTRUCTION

1. REMOVE 10'X24' OUTBOUND BRIDGE MOUNT SIGN PANEL(S).
2. REMOVE BRIDGE EXISTING UTILITIES (BRIDGE LIGHTING, BOOTH CONDUIT, BRIDGE DRAINAGE, ETC.).
3. SAW CUT BRIDGE DECK AT STAGE REMOVAL LINE AND IN BETWEEN EACH BEAM TO BE REMOVED.
4. REMOVE BEAM/DECK FROM BEARING TO BEARING AND HAUL AWAY.
5. REMOVE MEDIAN AND PLACE TEMPORARY PAVEMENT FOR ANTICIPATED I-190 TRAFFIC SHIFT.

PHASE 1 - STAGE II (WORK AREA A-1)

TRAFFIC

1. CLOSE RECIRCULATION BRIDGE TO ONE WESTBOUND LANE OF TRAVEL. APPROACH AND DEPARTURE MOVEMENTS ON BRIDGE REMAIN.
2. CLOSE ENTRANCE LANES TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/VALETHOURLY PARKING.
3. CONVERT TOLL BOOTH #2 TO ENTRY ACCESS TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/VALETHOURLY PARKING.
4. CONSTRUCT LANE SHIFT AND MEDIAN ISLAND MODIFICATION FOR ENTRANCE TO CONVERTED TOLL BOOTH #2.
5. TRAFFIC MOVEMENT OUT OF THE GARAGE UNDER SPAN 3 IS OPEN.

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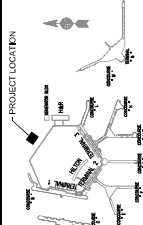
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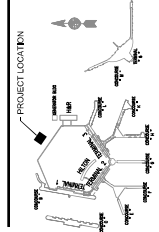


APPROVED AS WORKING PLAN

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| DESIGNED: | VI | REVISION FOR BID |
| REV. DATE: | DR | DESCRIPTION |
| PROJECT NAME: | | |

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|---|--------------------|----------|----|
| REINFORCEMENT | BRIDGE REPLACEMENT | | |
| SHEET TITLE: MAINTENANCE OF TRAFFIC GENERAL NOTES | | | |
| DESIGNED: | VI | CHECKED: | VI |
| DRAWN: | DR | | |

| | |
|--------------|------------|
| PROJECT NO.: | H3075.1500 |
| DATE: | 02/21/19 |
| SHEET NO.: | G 01 030 |
| REVISION: | |



APPROVED AS WORKING PLAN
REV. 1

| REV. | DATE | DESCRIPTION |
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| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME:

REINFORCEMENT
BRIDGE REPLACEMENT

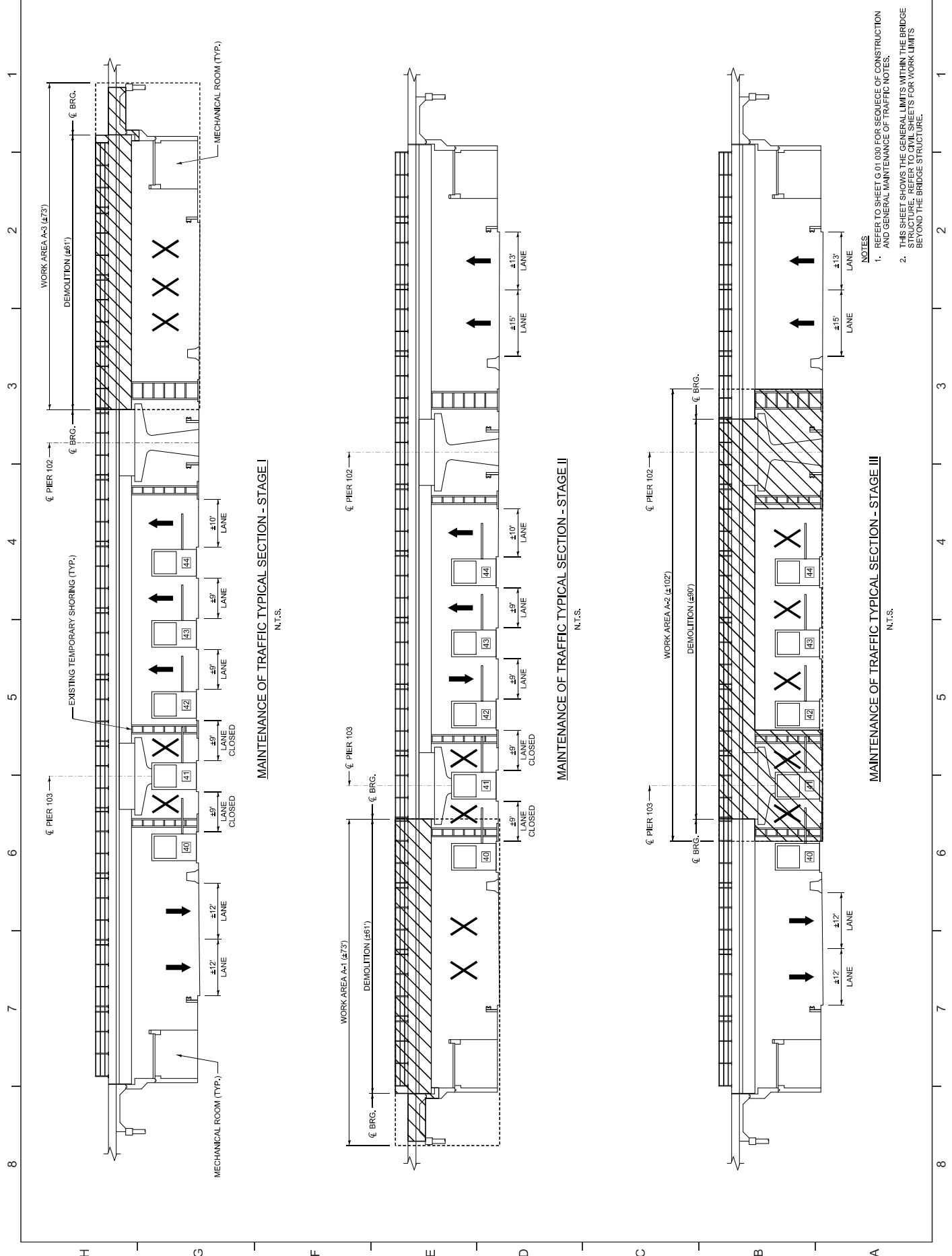
SHEET TITLE: PHASE 1
CONSTRUCTION SECTIONS
STAGES I - III

DESIGNED: CS
DRAWN: CS
CHECKED: VI

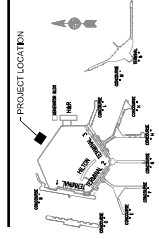
PROJECT NO.: H0074.19-00
DATE: 02/21/19

SHEET NO.: **G 01 031**

REVISION:



- NOTES
- REFER TO SHEET G 01 030 FOR SEQUENCE OF CONSTRUCTION AND GENERAL MAINTENANCE OF TRAFFIC NOTES.
 - THIS SHEET SHOWS THE GENERAL LIMITS WITHIN THE BRIDGE STRUCTURE. REFER TO CIVIL SHEETS FOR WORK LIMITS BEYOND THE BRIDGE STRUCTURE.



APPROVED AS WORKING PLAN
REV.

| REV. | DATE | DESCRIPTION |
|---------------|------|----------------|
| 002119 | | ISSUED FOR BID |
| PROJECT NAME: | | |

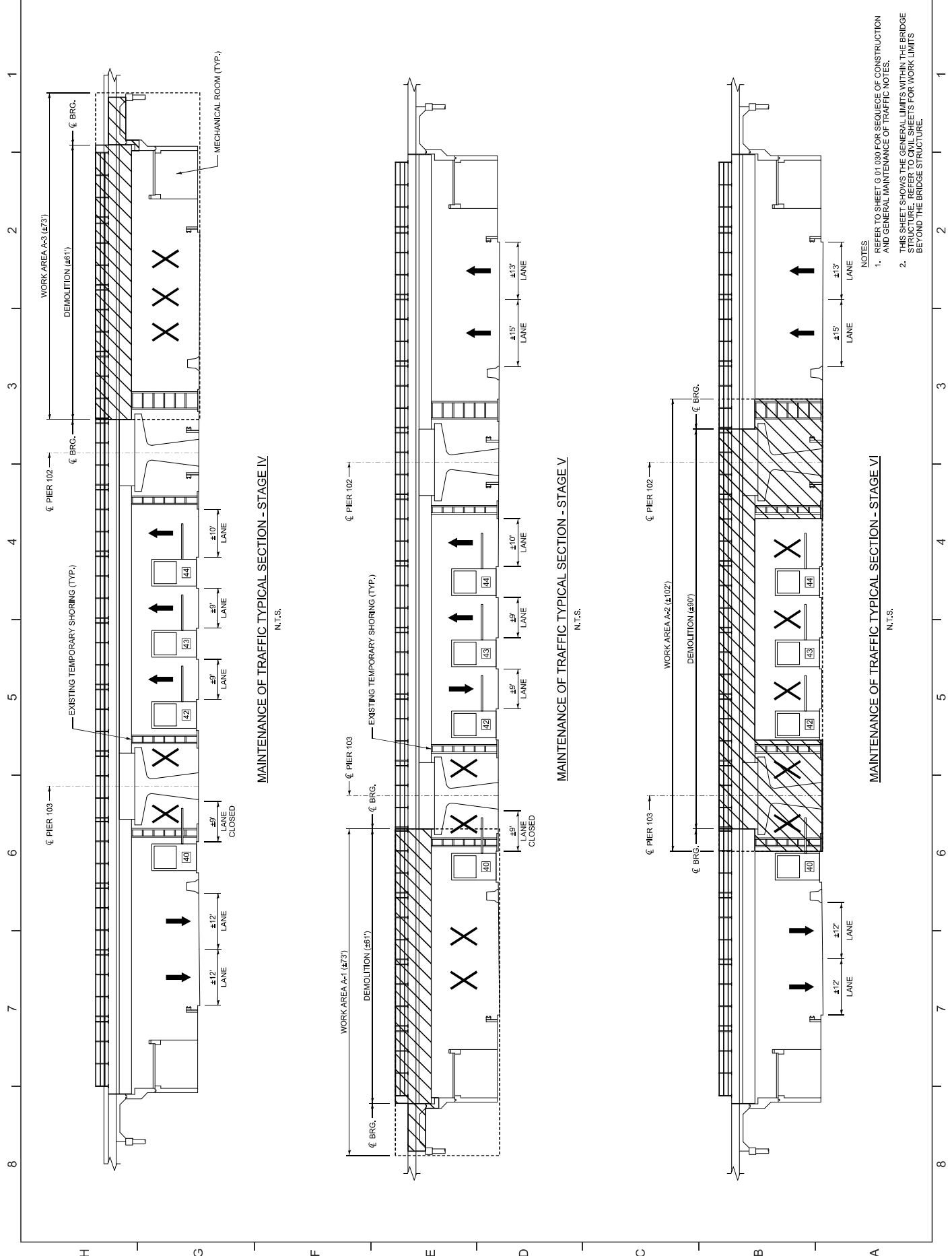
RECURCULATION
BRIDGE REPLACEMENT

SHEET TITLE:
**PHASE 2
CONSTRUCTION SECTIONS
STAGES IV - VI**

DESIGNED: CS
DRAWN: CS
CHECKED: VI

PROJECT NO.: H3073.1500
DATE: 02/21/19

SHEET NO.
G 01 032
REVISION



MAINTENANCE OF TRAFFIC TYPICAL SECTION - STAGE IV

N.T.S.

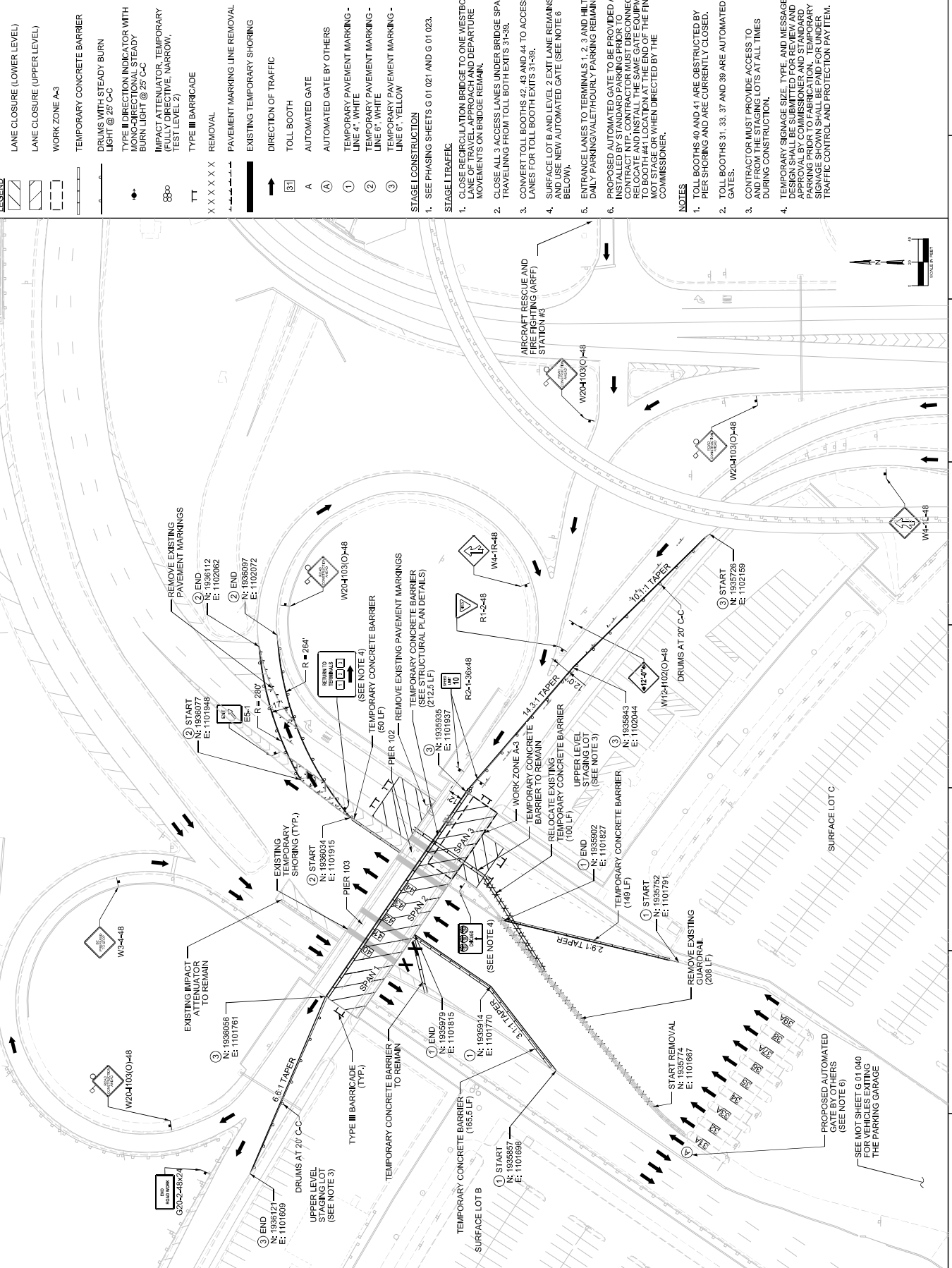
MAINTENANCE OF TRAFFIC TYPICAL SECTION - STAGE V

N.T.S.

MAINTENANCE OF TRAFFIC TYPICAL SECTION - STAGE VI

N.T.S.

- NOTES
1. REFER TO SHEET G 01 030 FOR SEQUENCE OF CONSTRUCTION AND GENERAL MAINTENANCE OF TRAFFIC NOTES.
 2. THIS SHEET SHOWS THE GENERAL LIMITS WITHIN THE BRIDGE STRUCTURE. REFER TO CIVIL SHEETS FOR WORK LIMITS BEYOND THE BRIDGE STRUCTURE.



LEGEND

| | |
|----------|--|
| [Symbol] | LANE CLOSURE (LOWER LEVEL) |
| [Symbol] | LANE CLOSURE (UPPER LEVEL) |
| [Symbol] | WORK ZONE A-3 |
| [Symbol] | TEMPORARY CONCRETE BARRIER |
| [Symbol] | DRUMS WITH STEADY BURN LIGHT @ 25' C-C |
| [Symbol] | TYPE II DIRECTION INDICATOR WITH MOVING DIRECTIONAL LIGHT BURN LIGHT @ 25' C-C |
| [Symbol] | IMPACT ATTENUATOR TEMPORARY (FULLY OBJECTIVE, NARROW, TEST LEVEL 2) |
| [Symbol] | TYPE III BARRICADE REMOVAL |
| [Symbol] | PAVEMENT MARKING LINE REMOVAL |
| [Symbol] | EXISTING TEMPORARY SHORING |
| [Symbol] | DIRECTION OF TRAFFIC |
| [Symbol] | TOLL BOOTH |
| [Symbol] | AUTOMATED GATE |
| [Symbol] | AUTOMATED GATE BY OTHERS |
| [Symbol] | TEMPORARY PAVEMENT MARKING - LINE 4', WHITE |
| [Symbol] | TEMPORARY PAVEMENT MARKING - LINE 6', WHITE |
| [Symbol] | TEMPORARY PAVEMENT MARKING - LINE 6', YELLOW |

STAGE I CONSTRUCTION

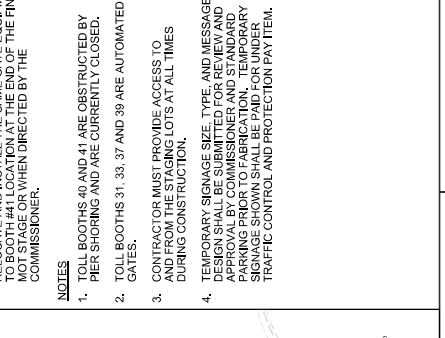
- SEE PHASING SHEETS G 01 021 AND G 01 023.

STAGE I TRAFFIC

- CLOSE REIRCULATION BRIDGE TO ONE WESTBOUND TRAVELING FROM TOLL BOTH EXITS 31-39. MOVEMENTS ON BRIDGE REMAIN.
- CLOSE ALL 3 ACCESS LANES UNDER BRIDGE SPAN 3 TRAVELING FROM TOLL BOTH EXITS 31-39.
- CONVERT TOLL BOOTHS 42, 43 AND 44 TO ACCESS LANES FOR TOLL BOOTH EXITS 31-39.
- SURFACE LOT B AND LEVEL 2 EXIT LANE REMAINS BELOW.
- ENTRANCE LANES TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/LETHBRIDGE PARKING REMAIN.
- PROPOSED AUTOMATED GATE TO BE PROVIDED AND INSTALLED BY STANDARD PARKING PRIOR TO PROJECT RELOCATE AND INSTALL THE SAME GATE EQUIPMENT TO BOOTH #41 LOCATION AT THE END OF THE FINAL MOT STAGE OR WHEN DIRECTED BY THE COMMISSIONER.

NOTES

- TOLL BOOTHS 40 AND 41 ARE RESTRICTED BY PIER SHORING AND ARE CURRENTLY CLOSED. GATES.
- TOLL BOOTHS 31, 37 AND 39 ARE AUTOMATED GATES.
- CONTRACTOR MUST PROVIDE ACCESS TO AND FROM THE STAGING LOTS AT ALL TIMES DURING CONSTRUCTION.
- TEMPORARY SIGNAGE SIZE, TYPE AND MESSAGE DESIGN SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY COMMISSIONER AND STANDARD PARKING PRIOR TO FABRICATION. TEMPORARY SIGNAGE SHALL BE INSTALLED ON PAVEMENT, TRAFFIC CONTROL AND PROTECTION PAVEMENT.



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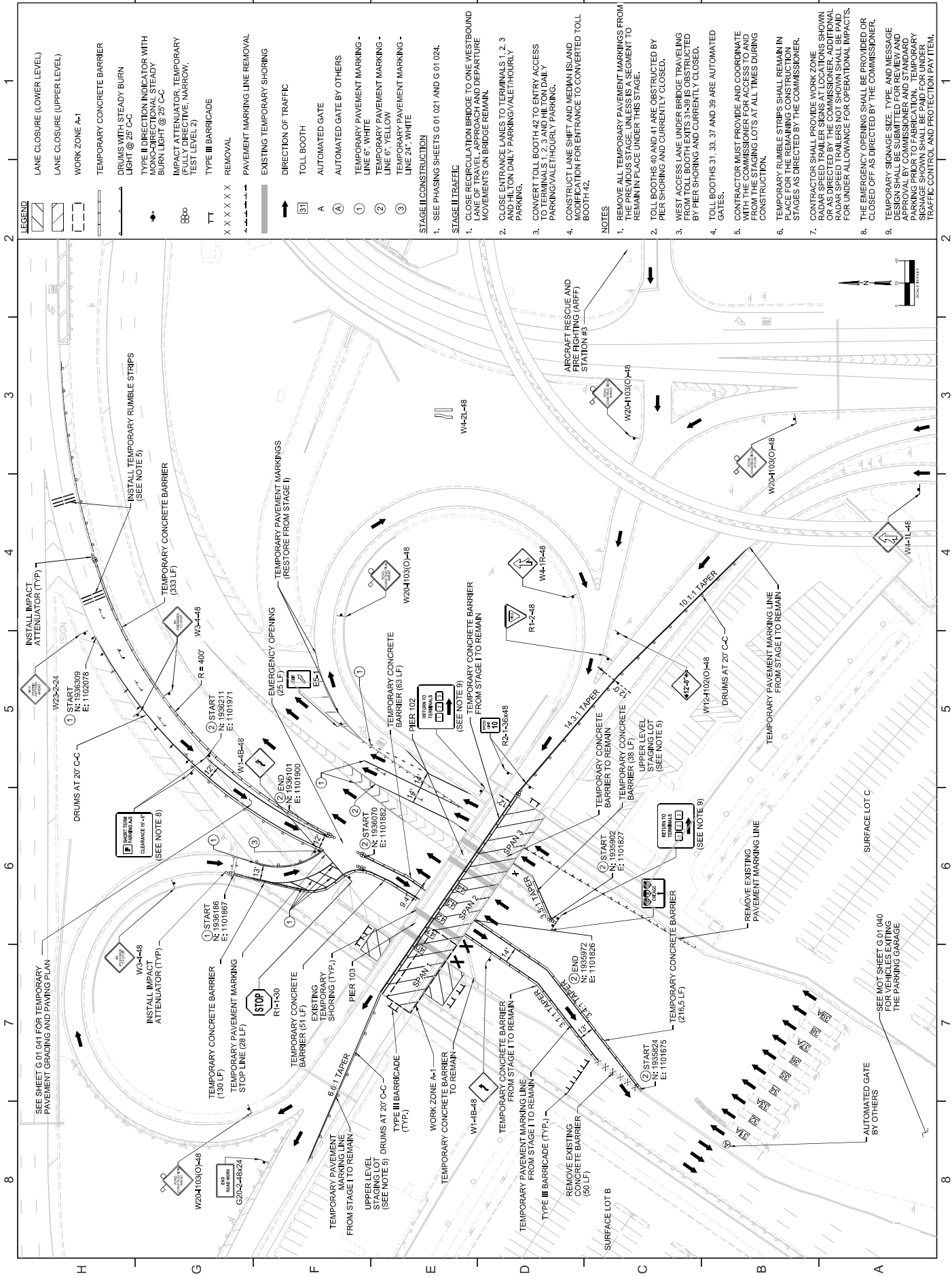
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- LEGEND**
- LANE CLOSURE (LOWER LEVEL)
 - LANE CLOSURE (UPPER LEVEL)
 - WORK ZONE A-1
 - TEMPORARY CONCRETE BARRIER
 - DRUMS WITH STEADY BURN LIGHT @ 25' C-C
 - TYPE II DIRECTION INDICATOR WITH MONODIRECTIONAL STEADY BURN LIGHT @ 25' C-C
 - IMPACT ATTENUATOR, TEMPORARY (FULLY OBSTRUCTIVE, NARROW, TEST LEVEL 2)
 - TYPE III BARRICADE REMOVAL
 - PAVEMENT MARKING LINE REMOVAL
 - EXISTING TEMPORARY SHORING
 - DIRECTION OF TRAFFIC
 - TOLL BOOTH
 - AUTOMATED GATE
 - AUTOMATED GATE BY OTHERS
 - TEMPORARY PAVEMENT MARKING - LINE 6", WHITE
 - TEMPORARY PAVEMENT MARKING - LINE 6", YELLOW
 - TEMPORARY PAVEMENT MARKING - LINE 24", WHITE

STAGE II CONSTRUCTION

1. SEE PHASING SHEETS G 01 021 AND G 01 024.

STAGE II TRAFFIC

1. CLOSE RECIRCULATION BRIDGE TO ONE WESTBOUND AND ONE EASTBOUND TRAVEL LANE. DEPARTURE MOVEMENTS ON BRIDGE REMAIN.
2. CLOSE ENTRANCE LANES TO TERMINALS 1, 2, 3 PARKING. CLOSE DAILY PARKING VALE THROU DAILY PARKING.
3. CONVERT TOLL BOOTH 42 TO ENTRY ACCESS TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING VALE THROU PARKING.
4. MODIFICATION FOR ENTRANCE TO CONVERTED TOLL BOOTH 42.

NOTES

1. REMOVE ALL TEMPORARY PAVEMENT MARKINGS FROM STAGING LOT B AND STAGING LOT C AND REMAIN IN PLACE UNDER THIS STAGE.
2. TOLL BOOTHS 40 AND 41 ARE OBSTRUCTED BY PIER SHORING AND CURRENTLY CLOSED.
3. WEST ACCESS LANE UNDER BRIDGE TRAVELING FROM TOLL BOOTH EXITS 31-39 IS OBSTRUCTED BY PIER SHORING AND CURRENTLY CLOSED.
4. TOLL BOOTHS 31, 33, 37 AND 39 ARE AUTOMATED GATES.
5. CONTRACTOR MUST PROVIDE AND COORDINATE WITH STAGING LOT B AND STAGING LOT C ACCESS FROM THE STAGING LOTS AT ALL TIMES DURING CONSTRUCTION.
6. TEMPORARY RUMBLE STRIPS SHALL REMAIN IN PLACE FOR THE REMAINING CONSTRUCTION STAGES AS DIRECTED BY THE COMMISSIONER.
7. CONTRACTOR SHALL PROVIDE WORK ZONE PAVEMENT MARKINGS AND RUMBLE STRIPS AS DIRECTED BY THE COMMISSIONER. ADDITIONAL RADAR SPEED TRAILERS NOT SHOWN SHALL BE PAID FOR UNDER ALLOWANCE FOR OPERATIONAL IMPACTS.
8. THE EMERGENCY OPENING SHALL BE PROVIDED OR CLOSED OFF AS DIRECTED BY THE COMMISSIONER.
9. TEMPORARY SIGNAGE SIZE, TYPE AND MESSAGE SHALL BE APPROVED BY THE COMMISSIONER AND STANDARD APPROVAL PRIOR TO FABRICATION. TEMPORARY SIGNAGE SHOWN SHALL BE PAID FOR UNDER TRAFFIC CONTROL AND PROTECTION PAY ITEM.

PROJECT LOCATION

APPROVED AS WORKING PLAN
REV. 1

PROJECT NAME:
RECIRCULATION
BRIDGE REPLACEMENT

DESIGNED: CS
DRAWN: CS
CHECKED: VI

ISSUED FOR BID: 02/21/19
REV. DATE: DESCRIPTION

PROJECT NO.: H3074.1500
DATE: 02/21/19

SHEET NO. G 01 034
REVISED

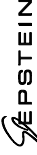
MAINTENANCE OF TRAFFIC
STAGE II
WORK AREA A-1

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CHICAGO
DEPARTMENT
OF AVIATION

OHARE INTERNATIONAL AIRPORT
CITY OF CHICAGO
DEPARTMENT OF AVIATION
PAUL J. MANUEL
JAMIE L. RIEE
CONSULTANT



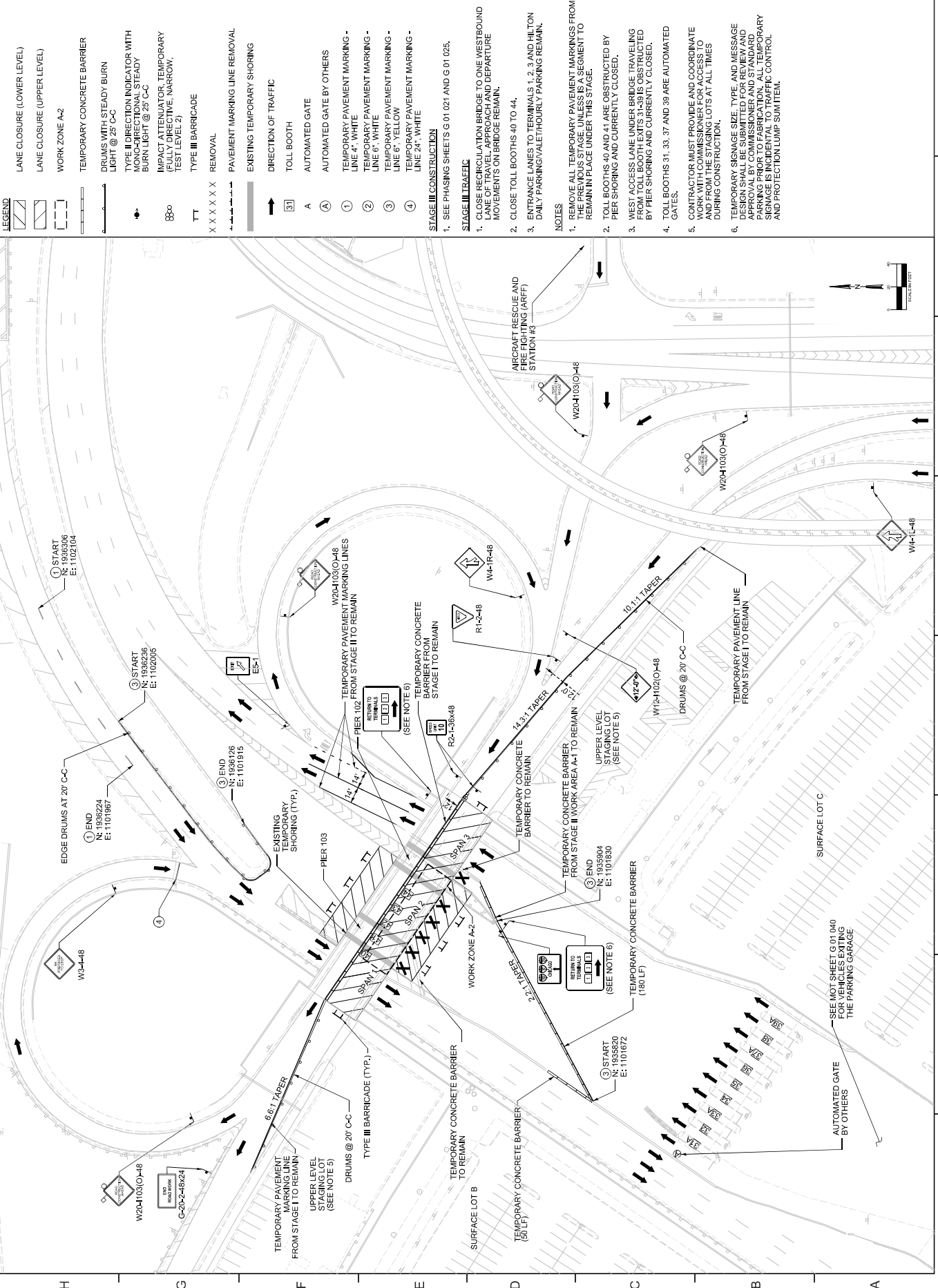
EPESTEIN
600 W. FULLTON
CHICAGO, IL 60641
T: 312.454.9100 E: 312.558.1217

PROJECT TITLE:
**MAINTENANCE OF TRAFFIC
STAGE III
WORK AREA A-2**

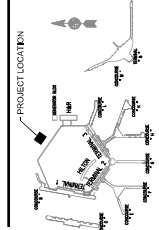
DESIGNED: CS DRAWING: CS CHECKED: VI

PROJECT NO.: H3074.15-00
DATE: 02/21/19

SHEET NO. **G 01 035** REVISION



- LEGEND**
- LANE CLOSURE (LOWER LEVEL)
 - LANE CLOSURE (UPPER LEVEL)
 - WORK ZONE A-2
 - TEMPORARY CONCRETE BARRIER
 - DRUMS WITH STEADY BURN LIGHT @ 25' C-C
 - TYPE III BARRICADE (SEE NOTE 5)
 - IMPACT ATTENUATOR - TEMPORARY (FULLY OBSTRUCTIVE, NARROW, TEST LEVEL 2)
 - TYPE III BARRICADE REMOVAL
 - PAVEMENT MARKING LINE REMOVAL
 - EXISTING TEMPORARY SHORING
 - DIRECTION OF TRAFFIC
 - TOLL BOOTH
 - AUTOMATED GATE
 - AUTOMATED GATE BY OTHERS
 - TEMPORARY PAVEMENT MARKING - LINE 4", WHITE
 - TEMPORARY PAVEMENT MARKING - LINE 6", WHITE
 - TEMPORARY PAVEMENT MARKING - LINE 6", YELLOW
 - TEMPORARY PAVEMENT MARKING - LINE 24", WHITE
- STAGE III CONSTRUCTION**
- SEE PHASING SHEETS G 01 021 AND G 01 025.
- STAGE III TRAFFIC**
- CLOSE PERIMETER BRIDGE TO ONE WESTBOUND MOVEMENT ON BRIDGE REMAIN.
 - CLOSE TOLL BOOTHS 40 TO 44.
 - ENTRANCE LANES TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/VALET/HOURLY PARKING REMAIN.
- NOTES**
- REMOVE ALL TEMPORARY PAVEMENT MARKINGS FROM THE PREVIOUS STAGE, UNLESS IS A SEGMENT TO REMAIN IN PLACE UNDER THIS STAGE.
 - TOLL BOOTHS 40 AND 41 ARE OBSTRUCTED BY PIER SHORING AND CURRENTLY CLOSED.
 - WEST ACCESS LANE UNDER BRIDGE TRAVELING FROM TOLL BOOTH EXITS 34-39 IS OBSTRUCTED BY PIER SHORING AND CURRENTLY CLOSED.
 - TOLL BOOTHS 31, 33, 37 AND 39 ARE AUTOMATED GATES.
 - CONTRACTOR MUST PROVIDE AND COORDINATE WORK WITH COMMISSIONER FOR ACCESS TO AIRPORT LOTS AT ALL TIMES DURING CONSTRUCTION.
 - TEMPORARY SIGNAGE SIZE, TYPE AND MESSAGE DESIGN SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. ALL TEMPORARY SIGNAGE IS INCIDENTAL TO TRAFFIC CONTROL AND PROTECTION LUMP SUM ITEM.



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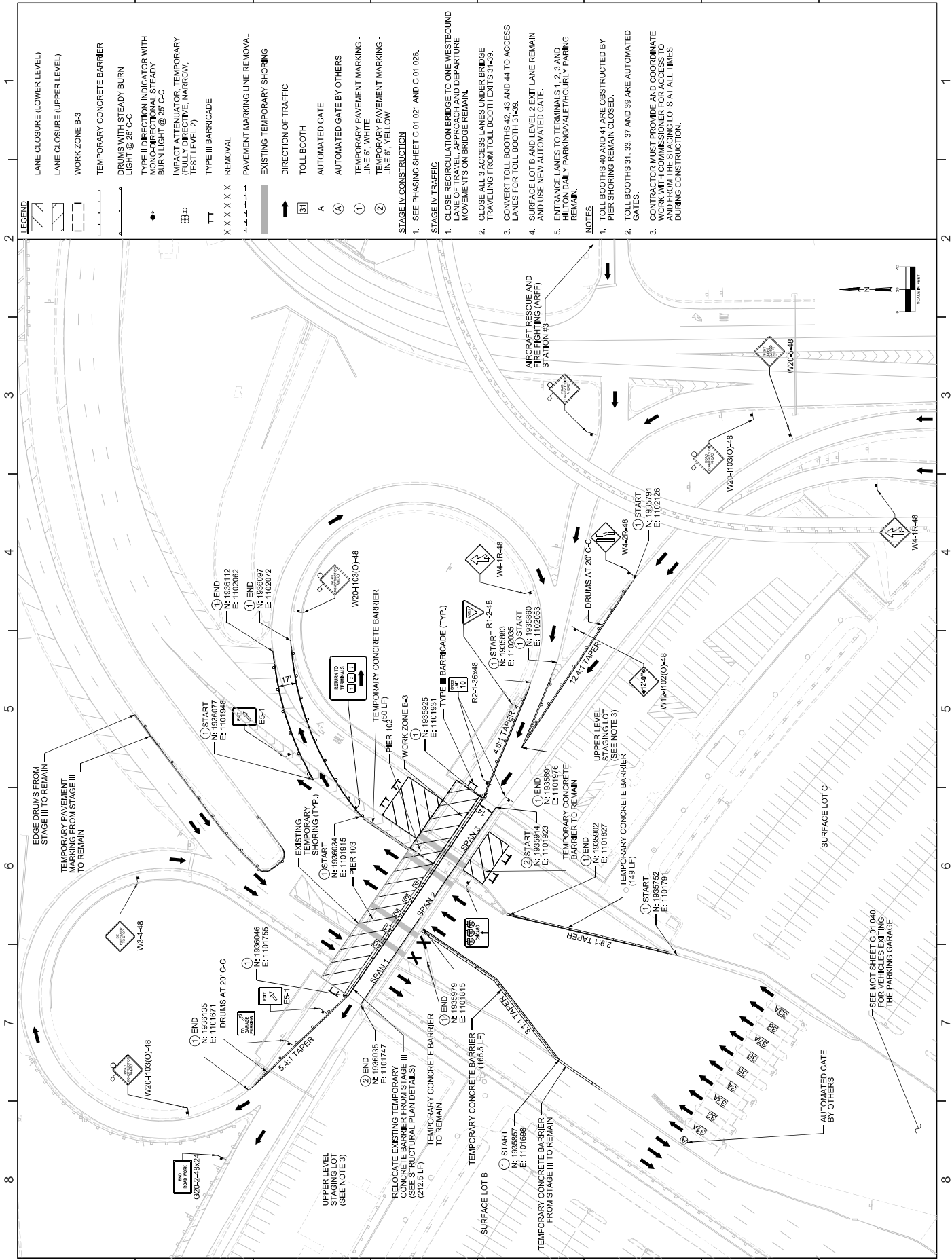
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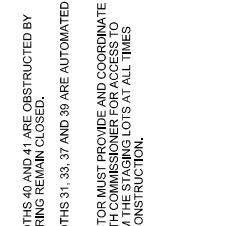
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- LEGEND**
- LANE CLOSURE (LOWER LEVEL)
 - LANE CLOSURE (UPPER LEVEL)
 - WORK ZONE B-3
 - TEMPORARY CONCRETE BARRIER
 - DRUMS WITH STEADY BURN LIGHT @ 25' C-C
 - TYPE II DIRECTION INDICATOR WITH MOVEMENT ARROW AND STEADY BURN LIGHT @ 25' C-C
 - IMPACT ATTENUATOR (FULLY REFLECTIVE, NARROW, TEST LEVEL 2)
 - TYPE III BARRICADE
 - PAVEMENT MARKING LINE REMOVAL
 - EXISTING TEMPORARY SHORING
 - DIRECTION OF TRAFFIC
 - TOLL BOOTH
 - AUTOMATED GATE
 - AUTOMATED GATE BY OTHERS
 - TEMPORARY PAVEMENT MARKING - LINE 6', WHITE
 - TEMPORARY PAVEMENT MARKING - LINE 6', YELLOW

- STAGE IV CONSTRUCTION**
1. SEE PHASING SHEET G 01 021 AND G 01 026.
- STAGE IV TRAFFIC**
1. CLOSE RECIRCULATION BRIDGE TO ONE WESTBOUND TRAVELING FROM TOLL BOOTH EXITS 31-39.
 2. CLOSE ALL 3 ACCESS LANES UNDER BRIDGE TRAVELING FROM TOLL BOOTH EXITS 31-39.
 3. CONVERT TOLL BOOTHS 42, 43 AND 44 TO ACCESS LANES FOR TOLL BOOTH 31-39.
 4. SURFACE LOT B AND LEVEL 2 EXIT LANE REMAIN AND USE NEW AUTOMATED GATE.
 5. ENTRANCE LANES TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/VALETHOURLY PARKING REMAIN.

- NOTES**
1. TOLL BOOTHS 40 AND 41 ARE OBSTRUCTED BY PIER SHORING REMAIN CLOSED.
 2. TOLL BOOTHS 31, 33, 37 AND 39 ARE AUTOMATED GATES.
 3. CONTRACTOR MUST PROVIDE AND COORDINATE ALL NECESSARY TRAFFIC CONTROL SIGNALS AND FROM THE STAGING LOTS AT ALL TIMES DURING CONSTRUCTION.



| REV | DATE | DESCRIPTION |
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| 02/21/19 | ISSUED FOR BID | |

PROJECT NAME:
RECYCULATION BRIDGE REPLACEMENT

DESIGNED: CS
DRAWING: CS
CHECKED: VI

PROJECT NO.: H3075.15-00
DATE: 02/21/19

SHEET NO. **G 01 036** REVIEWER:

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LEGEND

| | |
|--|---|
| | LANE CLOSURE (LOWER LEVEL) |
| | LANE CLOSURE (UPPER LEVEL) |
| | WORK ZONE B-1 |
| | TEMPORARY CONCRETE BARRIER |
| | DRUMS WITH STEADY BURN LIGHT @ 25' C-C |
| | TYPE III BARRICADE |
| | IMPACT ATTENUATOR |
| | DIRECTION INDICATOR WITH MOVEMENT ANGLE AND STEADY BURN LIGHT @ 25' C-C |
| | IMPACT ATTENUATOR, TEMPORARY TEST LEVEL 2 |
| | PAVEMENT MARKING LINE REMOVAL |

| | |
|--|--|
| | EXISTING TEMPORARY SHORING |
| | DIRECTION OF TRAFFIC |
| | TOLL BOOTH |
| | AUTOMATED GATE |
| | TEMPORARY PAVEMENT MARKING - LINE 6', WHITE |
| | TEMPORARY PAVEMENT MARKING - LINE 6', YELLOW |
| | TEMPORARY PAVEMENT MARKING - LINE 24', WHITE |

STAGE V CONSTRUCTION

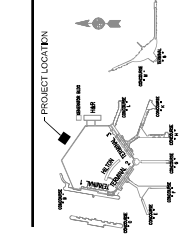
- SEE PHASING SHEETS G 01 021 AND G 01 027.

STAGE V TRAFFIC

- CLOSE RECIRCULATION BRIDGE TO ONE WESTBOUND LANE AND DEPARTURE MOVEMENTS ON BRIDGE REMAIN.
- CLOSE ENTRANCE LANES TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/VALETHOURLY PARKING.
- CONVERT TOLL BOOTH 42 TO ENTRY ACCESS TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/VALETHOURLY PARKING.
- CONSTRUCT LANE SHIFT AT MEDIAN ISLAND MODIFICATION FOR ENTRANCE TO CONVERTED TOLL BOOTHS 42.

NOTES

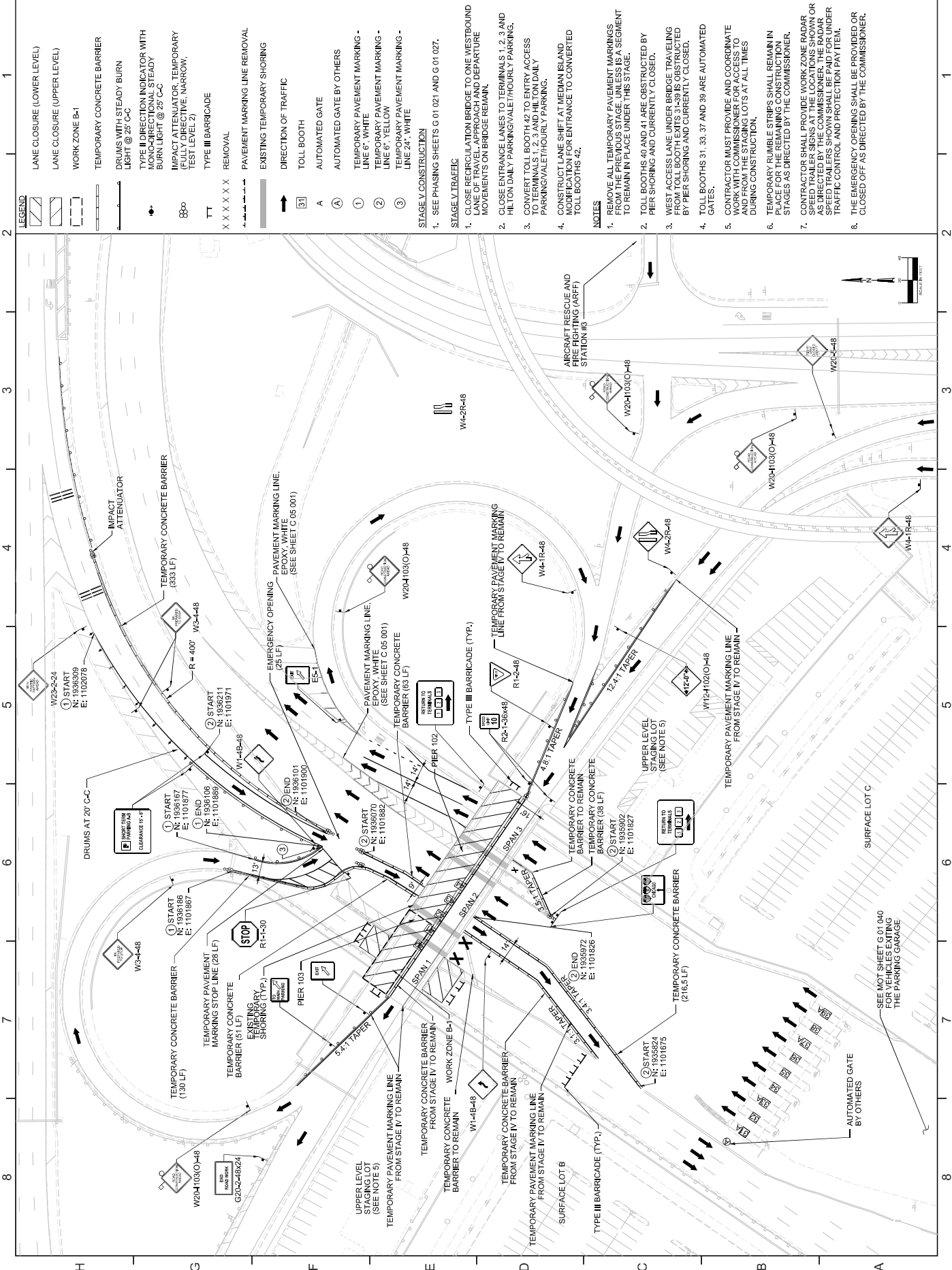
- REMOVE ALL TEMPORARY PAVEMENT MARKINGS FROM THE PARKING STAGE V UNLESS IS A SEGMENT TO REMAIN IN PLACE UNDER THIS STAGE.
- TOLL BOOTHS 40 AND 41 ARE OBTSTRUCTED BY PIER SHORING AND CURRENTLY CLOSED.
- WEST ACCESS LANE UNDER BRIDGE TRAVELING FROM TOLL BOOTH EXITS 31-39 IS OBTSTRUCTED BY PIER SHORING AND CURRENTLY CLOSED.
- TOLL BOOTHS 31, 33, 37 AND 39 ARE AUTOMATED GATES.
- CONTRACTOR MUST PROVIDE AND COORDINATE ALL TEMPORARY SHORING AND STAGING AREAS AND FROM THE STAGING LOTS AT ALL TIMES DURING CONSTRUCTION.
- TEMPORARY GUMBLE STRIPS SHALL REMAIN IN PLACE FOR THE DURATION OF THE CONSTRUCTION STAGES AS DIRECTED BY THE COMMISSIONER.
- CONTRACTOR SHALL PROVIDE WORK ZONE RADAR AS DIRECTED BY THE COMMISSIONER. THE RADAR SPEED TRAILERS SHOWN SHALL BE PAID FOR UNDER TRAFFIC CONTROL AND PROTECTION PAY ITEM.
- THE EMERGENCY OPENING SHALL BE PROVIDED OR CLOSED OFF AS DIRECTED BY THE COMMISSIONER.



APPROVED AS WORKING PLAN
DATE: 02/21/19
REV. DATE: 02/21/19
ISSUED FOR: BID
PROJECT NAME:
RECYCULATION
BRIDGE REPLACEMENT

| DESIGNED: | CS |
|--------------|-------------|
| CHECKED: | VI |
| DRAWN: | CS |
| PROJECT NO.: | H3073.19-00 |
| DATE: | 02/21/19 |
| SHEET NO.: | G 01 037 |
| REVISION: | |

**MAINTENANCE OF TRAFFIC
STAGE V
WORK AREA B-1**



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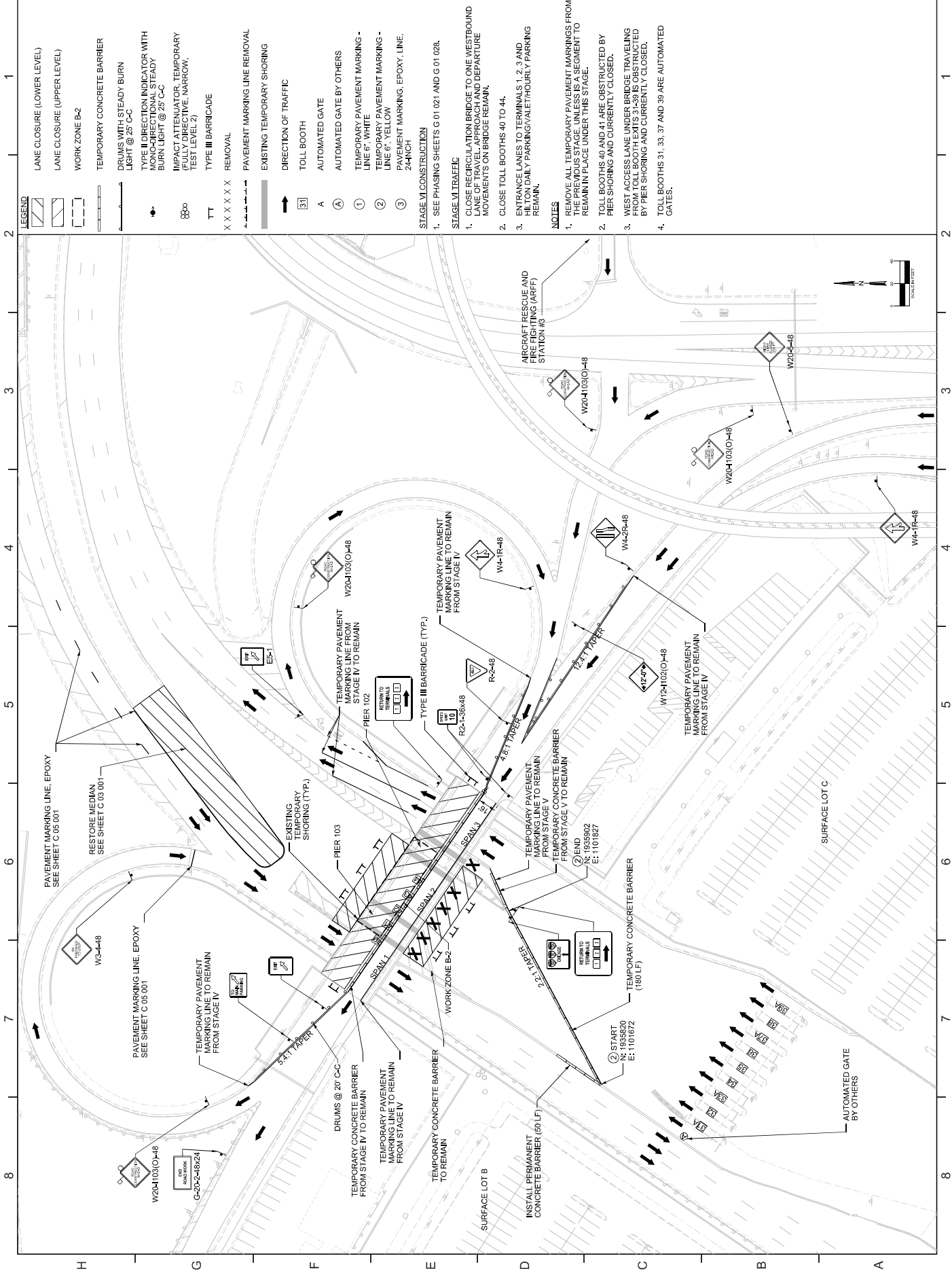
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- LEGEND**
- PAVEMENT MARKING LINE, EPOXY (SEE SHEET C 05 001)
 - RESTORE MEDIAN (SEE SHEET C 03 001)
 - PAVEMENT MARKING LINE, EPOXY (SEE SHEET C 05 001)
 - TEMPORARY PAVEMENT MARKING LINE TO REMAIN FROM STAGE IV
 - TEMPORARY PAVEMENT MARKING LINE TO REMAIN FROM STAGE V
 - TEMPORARY CONCRETE BARRIER (180 LF)
 - TEMPORARY CONCRETE BARRIER (50 LF)
 - TEMPORARY CONCRETE BARRIER (BY OTHERS)
 - WORK ZONE B-2
 - TEMPORARY CONCRETE BARRIER
 - DRUMS WITH STEADY BURN LIGHT @ 25' C-C
 - TYPE II DIRECTION INDICATOR WITH MOVING DIRECTIONAL ARROW, STEADY BURN LIGHT @ 25' C-C
 - IMPACT ATTENUATOR, TEMPORARY (FULLY DIRECTIONAL, NARROW, TEST LEVEL 2)
 - TYPE III BARRICADE
 - REMOVAL
 - EXISTING TEMPORARY SHORING
 - PAVEMENT MARKING LINE REMOVAL
 - DIRECTION OF TRAFFIC
 - TOLL BOOTH
 - AUTOMATED GATE
 - AUTOMATED GATE BY OTHERS
 - TEMPORARY PAVEMENT MARKING - LINE 6", WHITE
 - TEMPORARY PAVEMENT MARKING - LINE 6", YELLOW
 - PAVEMENT MARKING, EPOXY, LINE, 24-INCH

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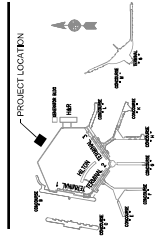
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APPROVED AS WORKING PLAN
BY: [Signature]

| REV. | DATE | DESCRIPTION |
|----------|----------------|-------------|
| 02/21/19 | ISSUED FOR BID | |

PROJECT NAME:
RECYCULATION
BRIDGE REPLACEMENT

DESIGNED BY:
MAINTENANCE OF TRAFFIC
STAGE VI
WORK AREA B-2

DRAWN: CS
CHECKED: VI

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO.:
G 01 038
REVISED:

NOTES

1. REMOVE ALL TEMPORARY PAVEMENT MARKINGS FROM THE PREVIOUS STAGE, UNLESS IS A SEGMENT TO REMAIN IN PLACE UNDER THIS STAGE.
2. TOLL BOOTHS 40 AND 41 ARE OBSTRUCTED BY PIER SHORING AND CURRENTLY CLOSED.
3. WEST ACCESS LANE UNDER BRIDGE TRAVELING FROM TOLL BOOTH EXITS 31-39 IS OBSTRUCTED BY PIER SHORING AND CURRENTLY CLOSED.
4. TOLL BOOTHS 31, 33, 37 AND 39 ARE AUTOMATED GATES.

STAGE VI CONSTRUCTION

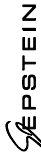
1. SEE PHASING SHEETS G 01 021 AND G 01 028.
2. CLOSE RECIRCULATION BRIDGE TO ONE WESTBOUND MOVEMENT ON BRIDGE REMAIN.
3. CLOSE TOLL BOOTHS 40 TO 44.
4. ENTRANCE LANES TO TERMINALS 1, 2, 3 AND HILTON DAILY PARKING/VALET HOURLY PARKING REMAIN.

STAGE VI TRAFFIC

1. REMOVE ALL TEMPORARY PAVEMENT MARKINGS FROM THE PREVIOUS STAGE, UNLESS IS A SEGMENT TO REMAIN IN PLACE UNDER THIS STAGE.
2. TOLL BOOTHS 40 AND 41 ARE OBSTRUCTED BY PIER SHORING AND CURRENTLY CLOSED.
3. WEST ACCESS LANE UNDER BRIDGE TRAVELING FROM TOLL BOOTH EXITS 31-39 IS OBSTRUCTED BY PIER SHORING AND CURRENTLY CLOSED.
4. TOLL BOOTHS 31, 33, 37 AND 39 ARE AUTOMATED GATES.



CHICAGO INTERNATIONAL AIRPORT
CITY OF CHICAGO
MANAGEMENT OF AVIATION
HAYWARD EMANUEL
JAMIE L. PREE
CONSULTANT



600 W. FULTON
CHICAGO, IL 60609
T. 312.454.9100 E. 312.558.1217



APPROVED AS WORKING PLAN
EPL

| REV | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME:

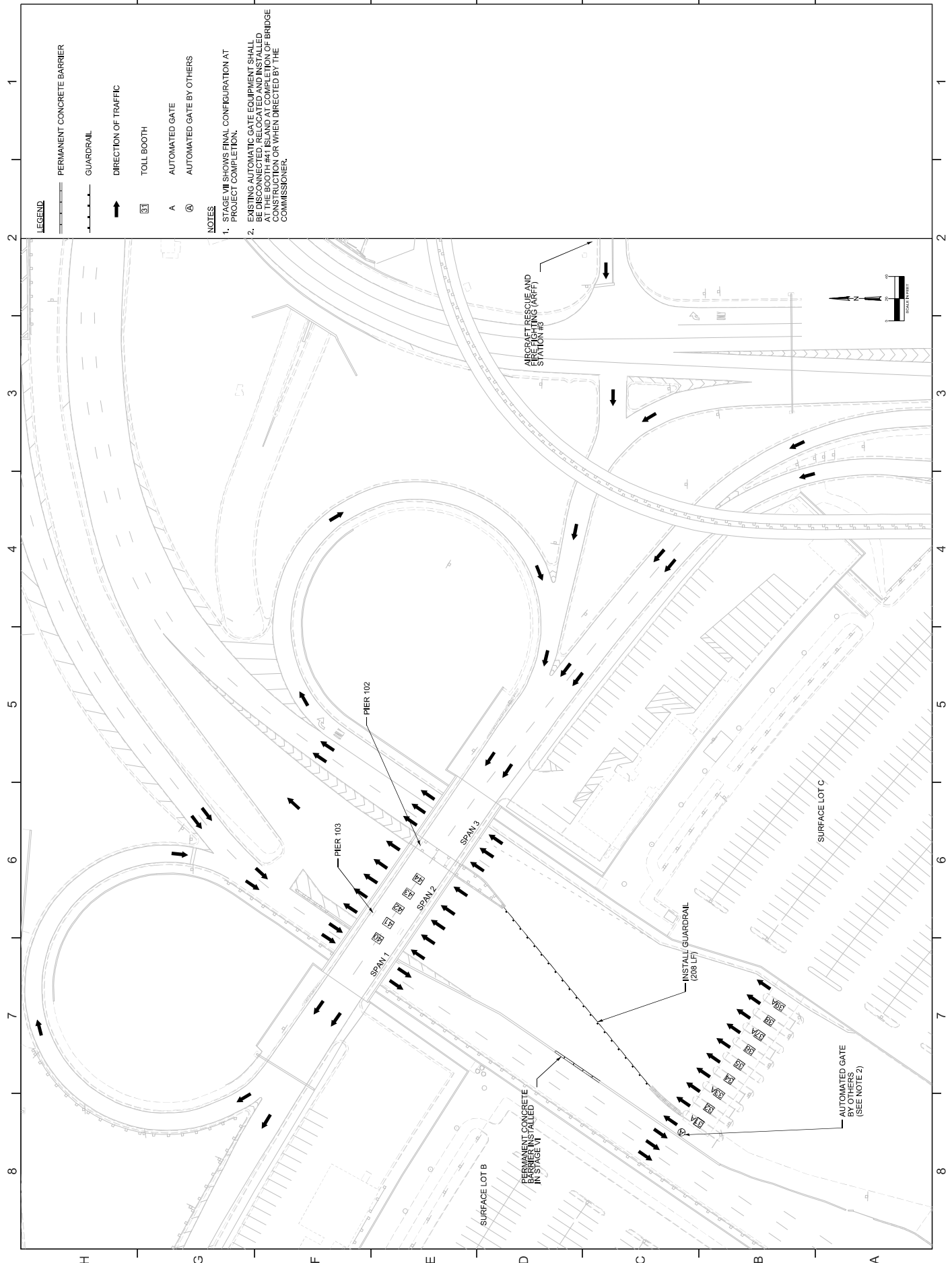
RECIRCULATION
BRIDGE REPLACEMENT

PROJECT TITLE:
MAINTENANCE OF TRAFFIC
STAGE VI
COMPLETION

DESIGNED: CS
DRAWN: CS
CHECKED: VI

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO.
G 01 039
REVISION

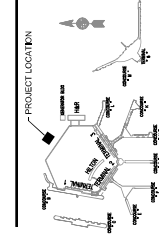
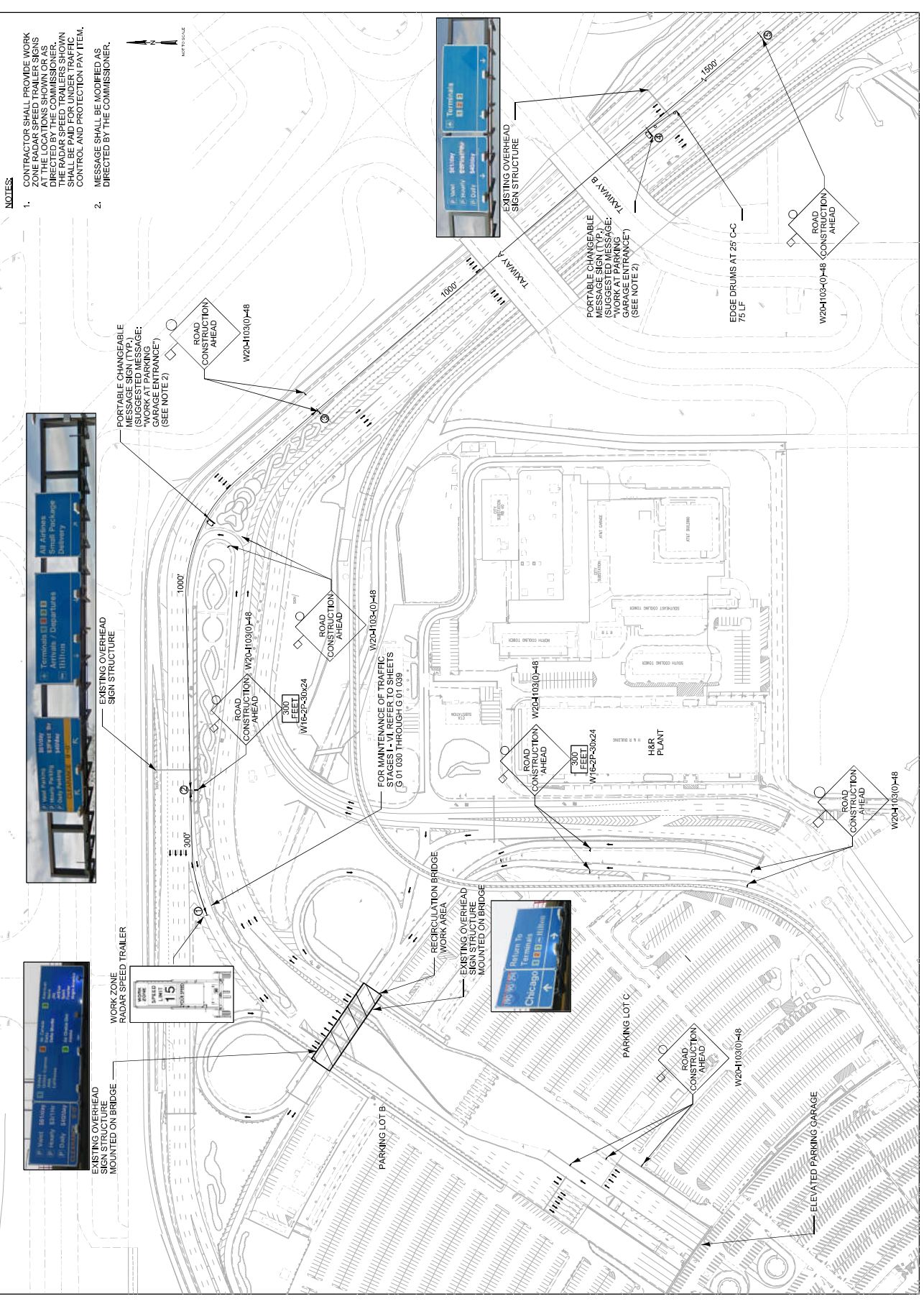


- LEGEND**
- PERMANENT CONCRETE BARRIER
 - GUARDRAIL
 - DIRECTION OF TRAFFIC
 - TOLL BOOTH
 - A AUTOMATED GATE
 - ⓐ AUTOMATED GATE BY OTHERS

NOTES

- STAGE VII SHOWS FINAL CONFIGURATION AT PROJECT COMPLETION.
- EXISTING AUTOMATIC GATE EQUIPMENT SHALL BE DISCONNECTED, RELOCATED AND INSTALLED AT THE BOOTH #41 ISLAND AT COMPLETION OF BRIDGE CONSTRUCTION OR WHEN DIRECTED BY THE COMMISSIONER.

- NOTES:**
- CONTRACTOR SHALL PROVIDE WORK ZONE SPEED TRAILER AT THE LOCATIONS SHOWN OR AS DIRECTED BY THE COMMISSIONER. THE RADAR SPEED TRAILERS SHOWN SHALL BE PAID FOR UNDER RAFFIC CONTROL AND PROTECTION PAY ITEM. MESSAGE SHALL BE MODIFIED AS DIRECTED BY THE COMMISSIONER.



APPROVED AS WORKING PLAN

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| 002/21/19 | ISSUED FOR BID | |

PROJECT NAME:

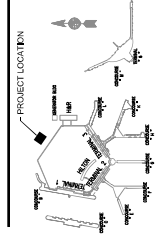
RECIROULATION
BRIDGE REPLACEMENT

MAINTENANCE OF TRAFFIC
ADVANCED SIGNAGE
PLAN

DESIGNED: KH
DRAWN: KH
CHECKED: VI

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO. **G 01 040**
REVISION



APPROVED AS WORKING PLAN

| REV. | DATE | DESCRIPTION |
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| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME:

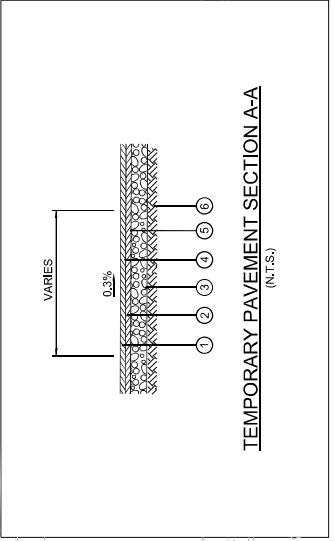
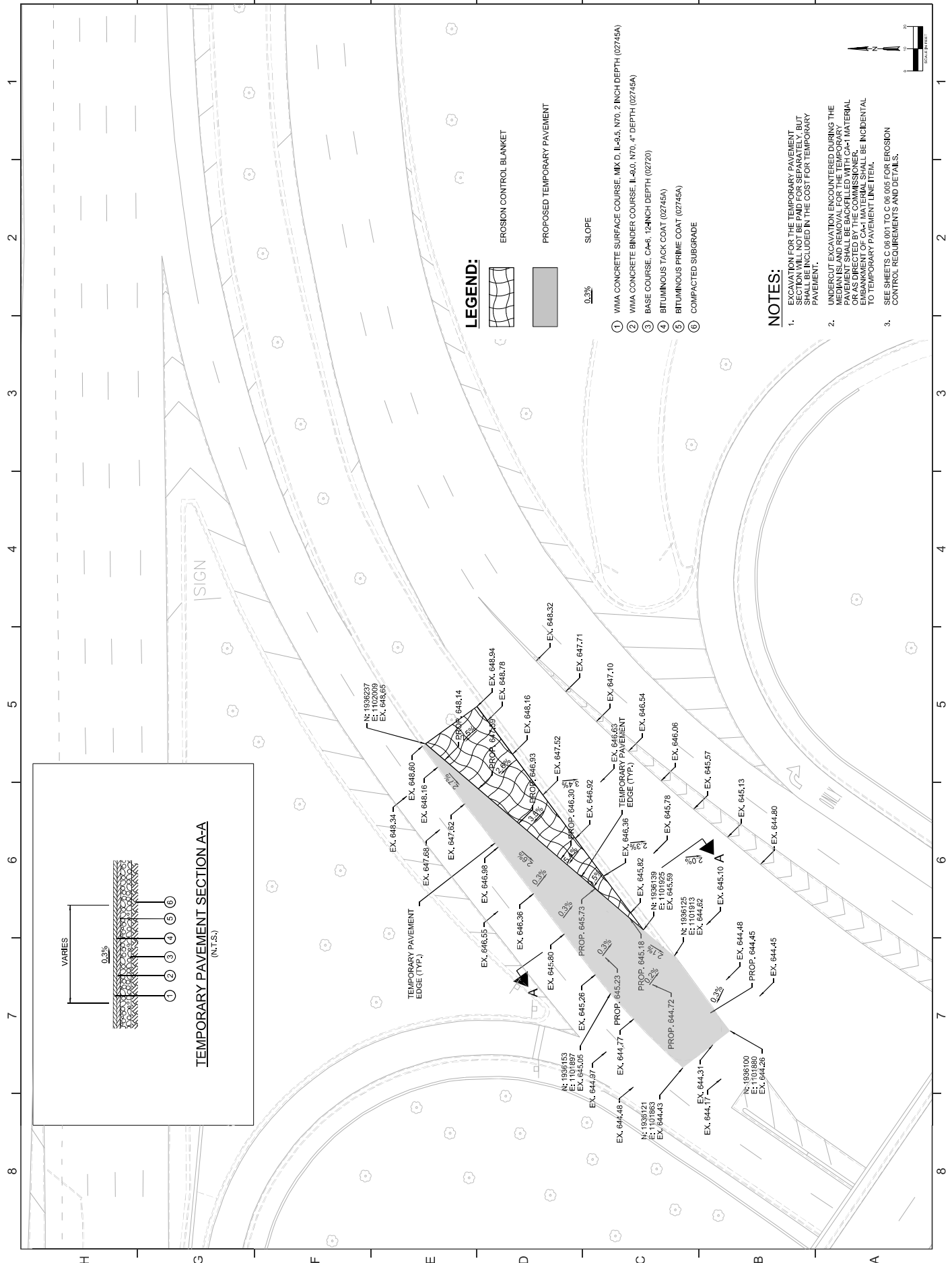
RECONFIGURATION
BRIDGE REPLACEMENT

SHEET TITLE:
**TEMPORARY PAVEMENT
GRADING AND PAVING
PLAN**

DESIGNED: KH
DRAWN: KH
CHECKED: VI

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO. **G 01 041**
REVISION



LEGEND:

- EROSION CONTROL BLANKET
- PROPOSED TEMPORARY PAVEMENT
- 0.3% SLOPE
- ① W/M CONCRETE SURFACE COURSE, MK D, IL-9.5, N70, 2 INCH DEPTH (02745A)
- ② W/M CONCRETE BINDER COURSE, IL-90, N70, 4" DEPTH (02745A)
- ③ BASE COURSE, CA-6, 12 INCH DEPTH (02720)
- ④ BITUMINOUS TACK COAT (02745A)
- ⑤ BITUMINOUS PRIME COAT (02745A)
- ⑥ COMPACTED SUBGRADE

NOTES:

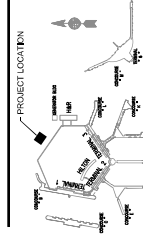
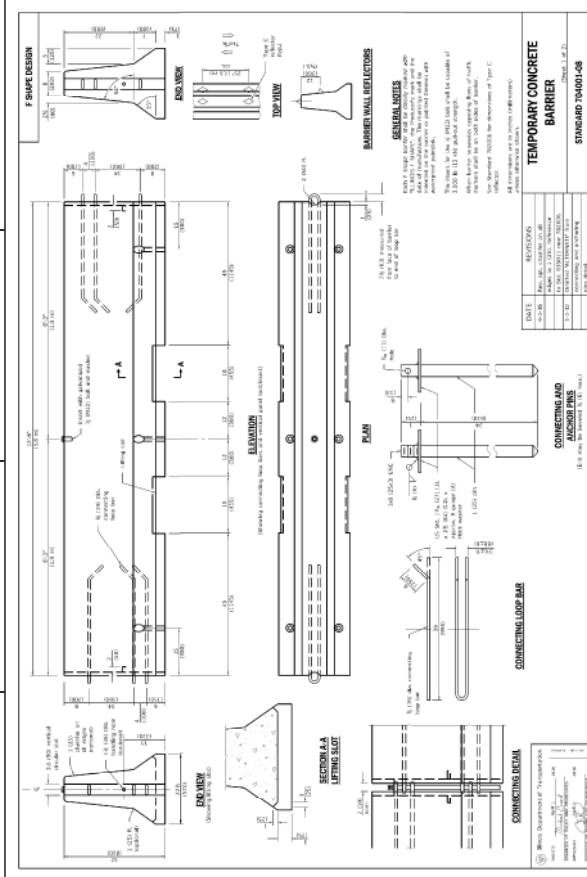
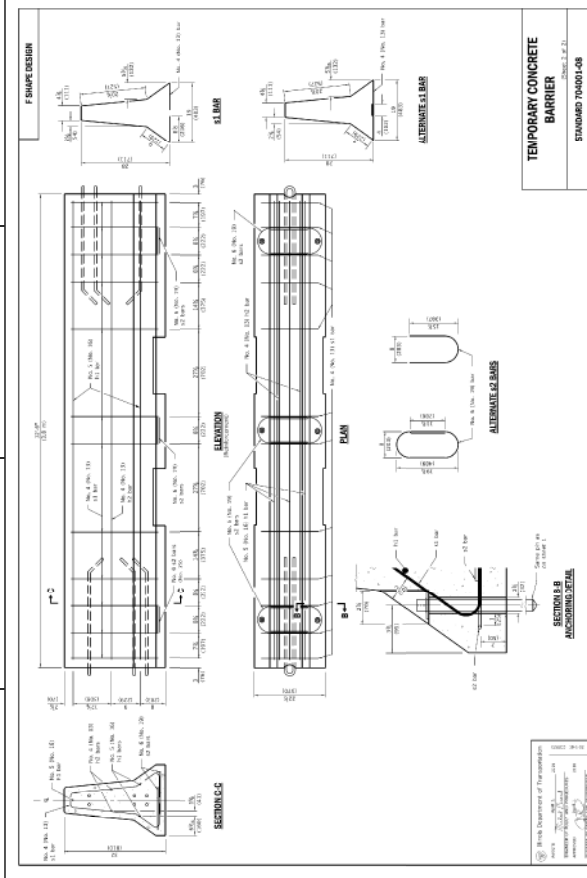
1. EXCAVATION FOR THE TEMPORARY PAVEMENT SECTION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST FOR TEMPORARY PAVEMENT.
2. UNSURFACED EXCAVATION ENCOUNTERED DURING THE TEMPORARY PAVEMENT CONSTRUCTION SHALL BE BACKFILLED WITH C&P MATERIAL OR AS DIRECTED BY THE COMMISSIONER. EMBANKMENT OF C&P MATERIAL SHALL BE INCIDENTAL TO TEMPORARY PAVEMENT LINE ITEM.
3. SEE SHEETS C 05 001 TO C 06 005 FOR EROSION CONTROL REQUIREMENTS AND DETAILS.



CHICAGO DEPARTMENT OF AVIATION
 O'HARE INTERNATIONAL AIRPORT
 CITY OF CHICAGO
 PASADENA AVENUE
 HANOVER, ILLINOIS 60439
 JAMIE L. FRIE
 CONSULTANT

PEPSTEIN

600 W. FULTON
 CHICAGO, ILLINOIS 60609
 T: 312.258.4300 E: 312.258.1217



APPROVED AS WORKING PLAN

DATE: 02/21/19

ISSUED FOR BID

REV. DATE DESCRIPTION

PROJECT NAME:

REINFORCEMENT
 BRIDGE REPLACEMENT

SHEET TITLE:
TRAFFIC CONTROL DEVICES AND STANDARDS

DESIGNED: VI
 DRAWN: DR
 CHECKED: VI

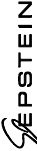
PROJECT NO.: H3073.15-00
 DATE: 02/21/19

SHEET NO.:
G 01 042
 REVISION:

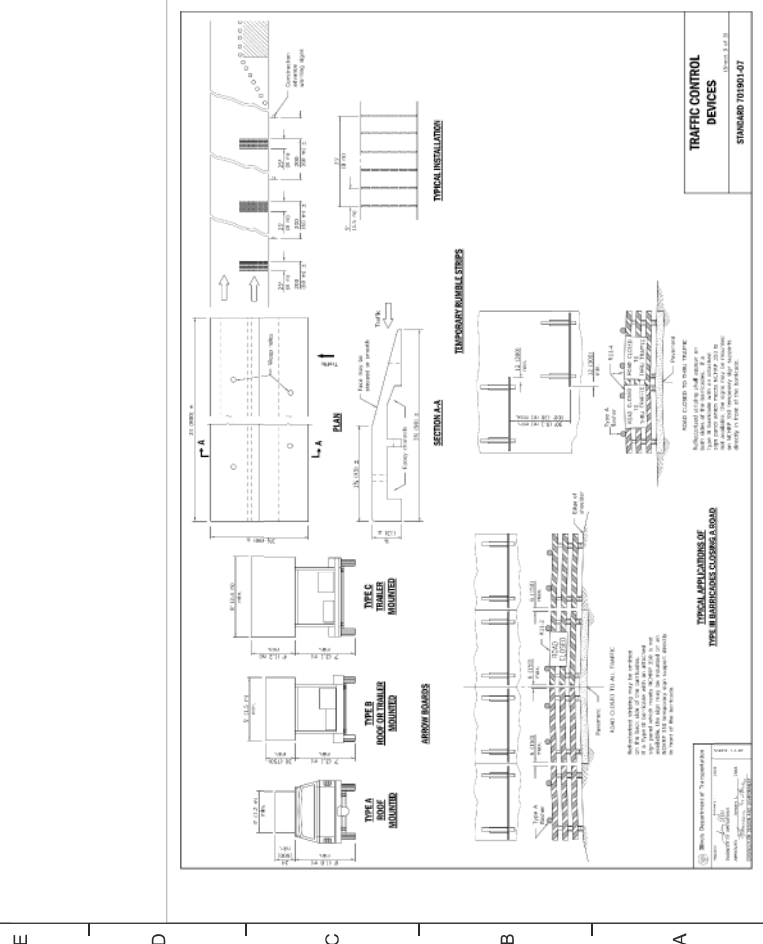
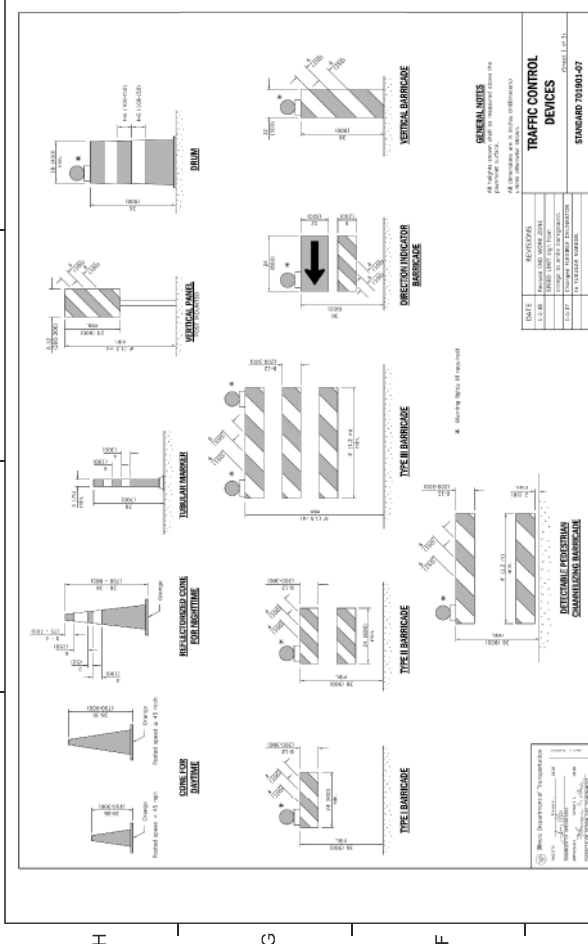
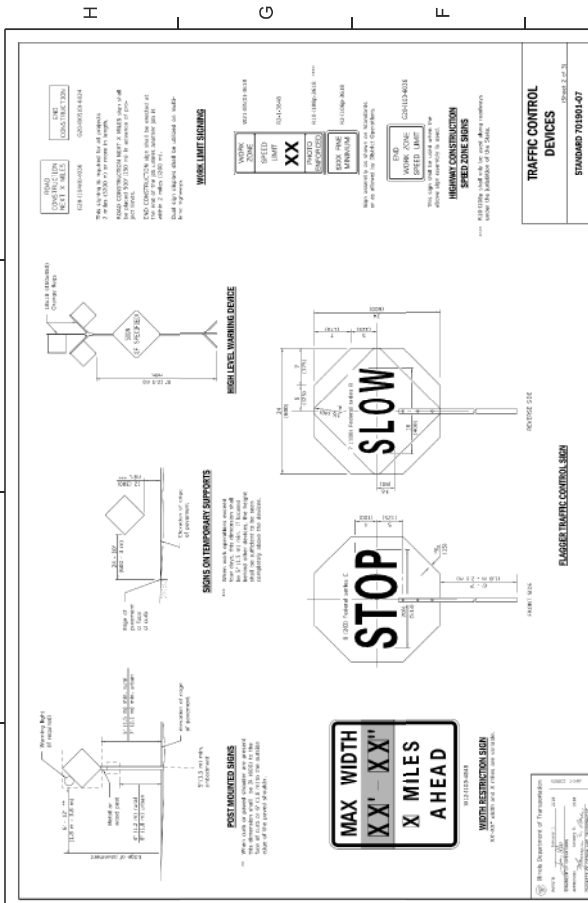


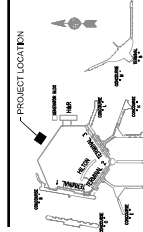
CHICAGO INTERNATIONAL AIRPORT
CITY OF CHICAGO
DEPARTMENT OF AVIATION
MANUEL M. RAMIREZ
COMMISSIONER

CONSULTANT



600 W. FULTON
CHICAGO, IL 60609
T. 312.454.9100 E. 312.456.1217





APPROVED AS WORKING PLAN
EPL

| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME:

RECYCLATION
BRIDGE REPLACEMENT

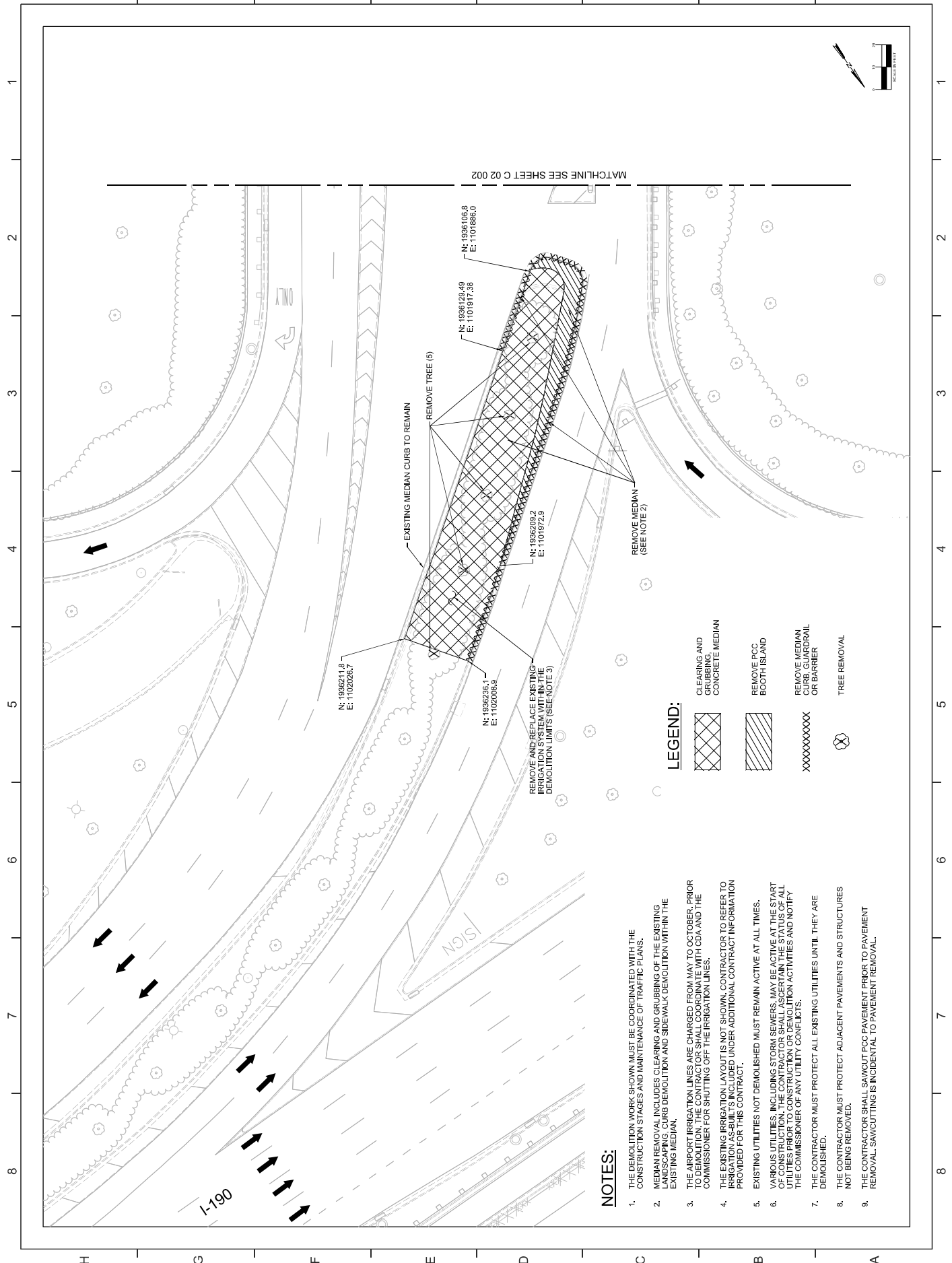
SHEET TITLE:
DEMOLITION PLAN

DESIGNED: KH
DRAWN: KH
CHECKED: VI

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO.
C 02.001

REVISION



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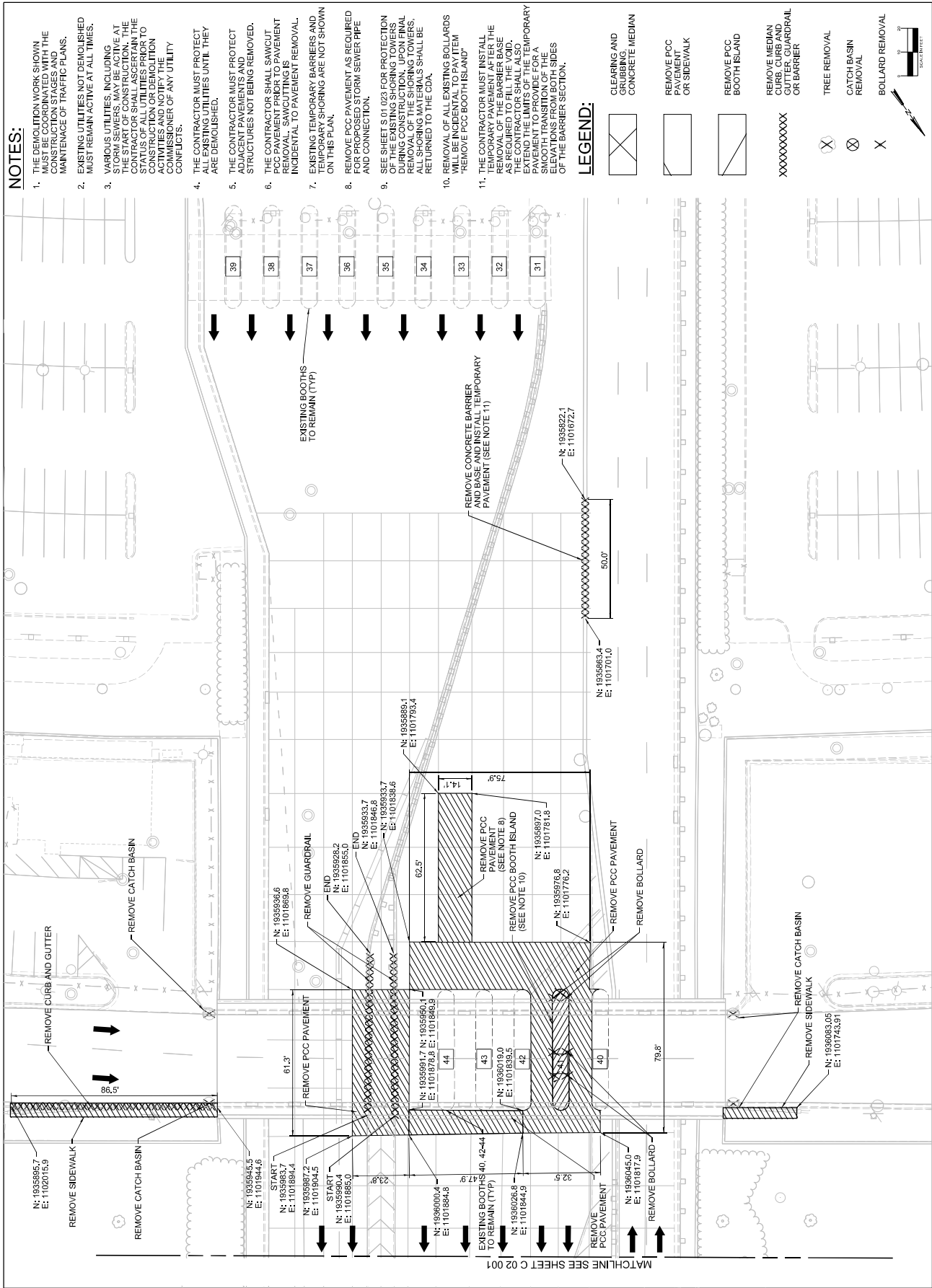
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NOTES:

- THE DEMOLITION WORK SHOWN ON THIS SHEET IS LIMITED TO THE DEMOLITION STAGES AND MAINTENANCE OF TRAFFIC PLANS.
- EXISTING UTILITIES NOT DEMOLISHED MUST REMAIN ACTIVE AT ALL TIMES.
- VARIOUS UTILITIES, INCLUDING STORM SEWERS, MAY BE ACTIVE AT THE TIME OF DEMOLITION. THE CONTRACTOR SHALL ASCERTAIN THE STATUS OF ALL UTILITIES PRIOR TO CONSTRUCTION OR DEMOLITION ACTIVITIES AND NOTIFY THE CONTRACTOR OF ANY UTILITY CONFLICTS.
- THE CONTRACTOR MUST PROTECT ALL EXISTING UTILITIES UNTIL THEY ARE DEMOLISHED.
- THE CONTRACTOR MUST PROTECT ADJACENT PAVEMENTS AND STRUCTURES NOT BEING REMOVED.
- THE CONTRACTOR SHALL SAWCUT PCC PAVEMENT PRIOR TO PAVEMENT REMOVAL. SAWCUTTING IS INCIDENTAL TO PAVEMENT REMOVAL.
- EXISTING TEMPORARY BARRIERS AND TEMPORARY SHORING ARE NOT SHOWN ON THIS PLAN.
- REMOVE PCC PAVEMENT AS REQUIRED FOR PROPOSED STORM SEWER PIPE AND CONNECTION.
- SEE SHEET S 01 023 FOR PROTECTION OF THE EXISTING SHORING TOWERS DURING CONSTRUCTION. UPON FINAL REMOVAL OF SHORING TOWERS, ALL SHORING MATERIALS SHALL BE RETURNED TO THE CDA.
- REMOVAL OF ALL EXISTING BOLLARDS WILL BE INCIDENTAL TO PAVEMENT 'REMOVE PCC BOOTH ISLAND'.
- THE CONTRACTOR MUST INSTALL REMOVAL OF THE BARRIER BASE AS REQUIRED TO FILL THE VOID. THE CONTRACTOR SHALL ALSO PAVEMENT TO PROVIDE FOR A SMOOTH TRANSITION OF THE ELEVATIONS FROM BOTH SIDES OF THE BARRIER SECTION.

LEGEND:

- CLEARING AND GRUBBING, CONCRETE MEDIUM
- REMOVE PCC PAVEMENT OR SIDEWALK
- REMOVE PCC BOOTH ISLAND
- REMOVE MEDIAN CURB, CURB AND GUTTER, PARAPET OR BARRIER
- TREE REMOVAL
- CATCH BASIN REMOVAL
- BOLLARD REMOVAL

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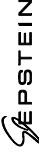
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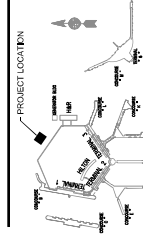
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CHICAGO INTERNATIONAL AIRPORT
CITY OF CHICAGO
DEPARTMENT OF AVIATION
JAVIER FERNANDEZ
JAMIE L. FREE
CONSULTANT



600 W. FULTON
CHICAGO, IL 60607
T: 312.464.9100 F: 312.558.1217



APPROVED AS WORKING PLAN
DWG.

| REV. | DATE | DESCRIPTION |
|--------|------|----------------|
| 002119 | | ISSUED FOR BID |

PROJECT NAME:

RECIRCULATION
BRIDGE REPLACEMENT

SHEET TITLE:
**GRADING, PAVING
AND RESTORATION PLAN**
DESIGNED: KH DRAWING: KH CHECKED: VI

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO. **C 03 001** REVISION

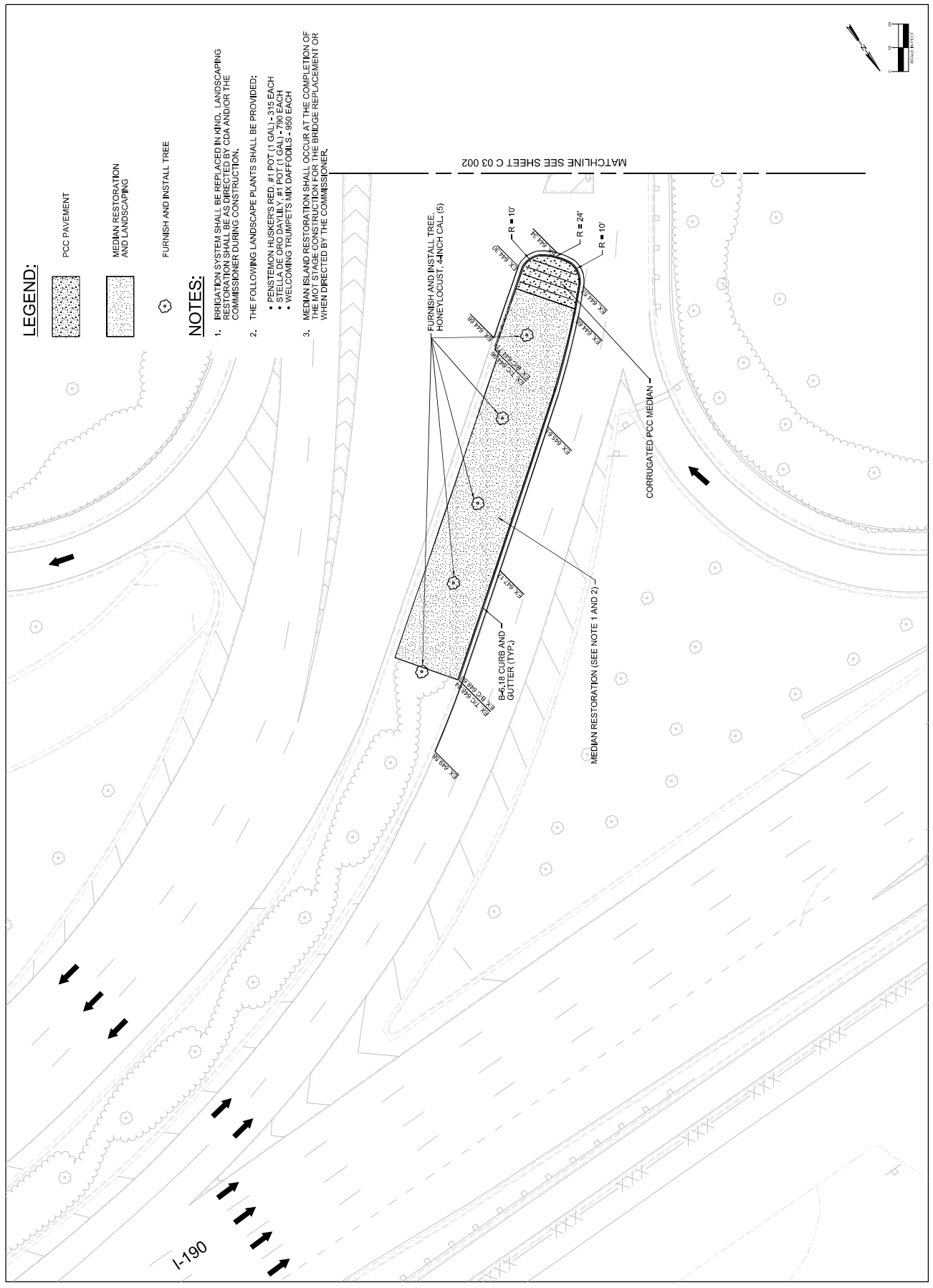
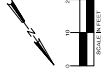
LEGEND:

- PCC PAVEMENT
- MEDIAN RESTORATION AND LANDSCAPING
- FURNISH AND INSTALL TREE

NOTES:

1. PAVEMENT SYSTEM SHALL BE REPLACED IN KIND. LANDSCAPING RESTORATION SHALL BE AS DIRECTED BY CIA AND/OR THE COMMISSIONER DURING CONSTRUCTION.
2. THE FOLLOWING LANDSCAPE PLANTS SHALL BE PROVIDED:
 - PENSTEMON HUSKERS RED #1 POT (1 GAL) - 315 EACH
 - STELLA DE ORO DAYLILY #1 POT (1 GAL) - 790 EACH
 - WELCOMING TRUMPETS MIX DAFFODILS - 950 EACH
3. MEDIAN ISLAND RESTORATION SHALL OCCUR AT THE COMPLETION OF THE 1ST STAGE CONSTRUCTION FOR THE BRIDGE REPLACEMENT OR WHEN DIRECTED BY THE COMMISSIONER.

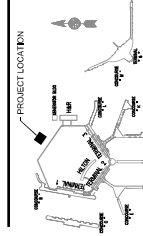
MATCHLINE SEE SHEET C 03 002



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H G F E D C B A



APPROVED AS WORKING PLAN
 BY: _____

| REV. | DATE | DESCRIPTION |
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| 002119 | | ISSUED FOR BID |
| PROJECT NAME: | | |

REGRADUATION
 BRIDGE REPLACEMENT






SHEET TITLE:
**GRADING, PAVING
 AND RESTORATION PLAN**

DESIGNED: KH
 DRAWN: KH
 CHECKED: VI

PROJECT NO.: H3073.15-00
 DATE: 02/21/19

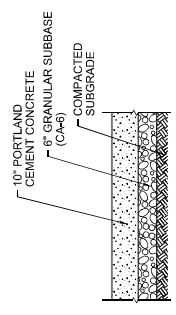
SHEET NO. **C 03 002**
 REVISION

LEGEND:

-  PCC PAVEMENT
-  DOWELED CONTRACTION JOINT
-  GUARDRAIL
-  CONCRETE BARRIER
-  BOLLARD

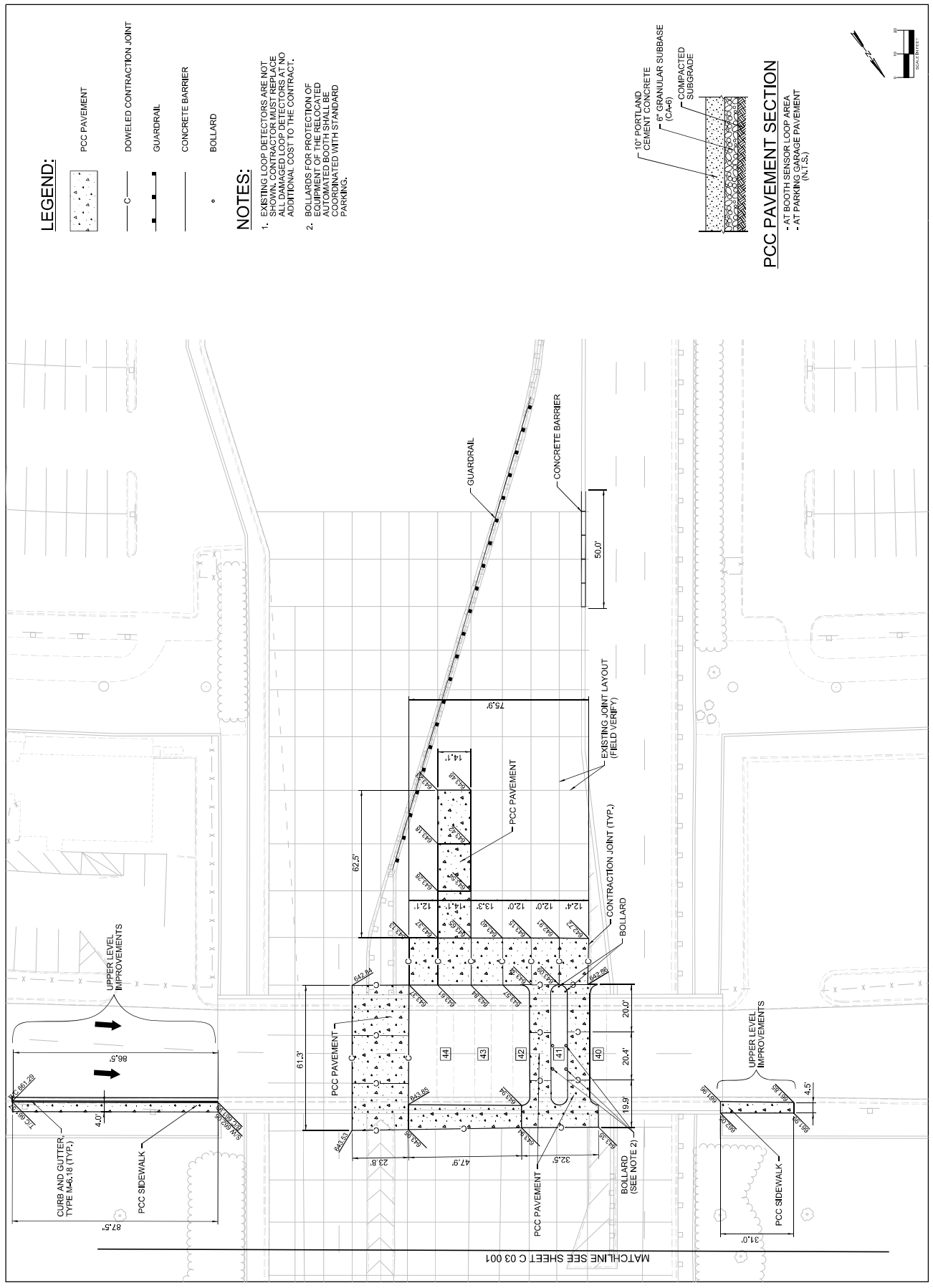
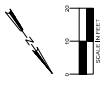
NOTES:

1. EXISTING LOOP DETECTORS ARE NOT TO BE RELOCATED. ALL DAMAGED LOOP DETECTORS AT NO ADDITIONAL COST TO THE CONTRACT.
2. BOLLARDS FOR PROTECTION OF EQUIPMENT OF THE RELOCATED AUTOMATED BOOTH SHALL BE COORDINATED WITH STANDARD PARKING.



PCC PAVEMENT SECTION

- AT BOOTH SENSOR LOOP AREA
- AT PARKING (N.I.S.)



MATCHLINE SEE SHEET C 03 001

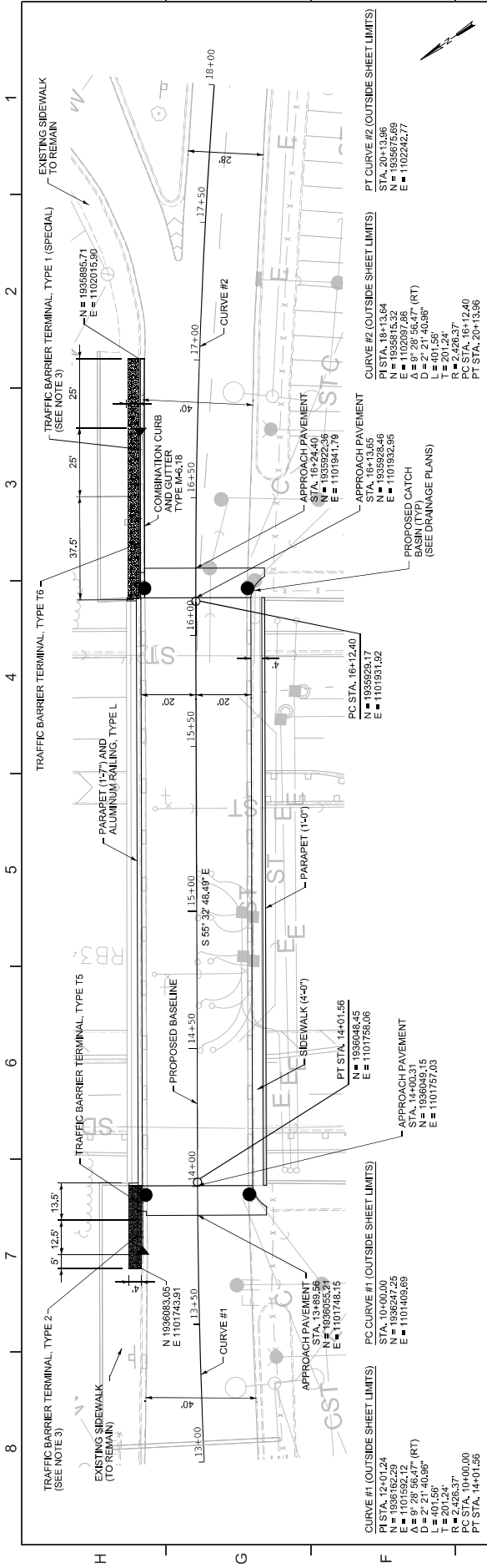


CHICAGO
DEPARTMENT
OF AVIATION

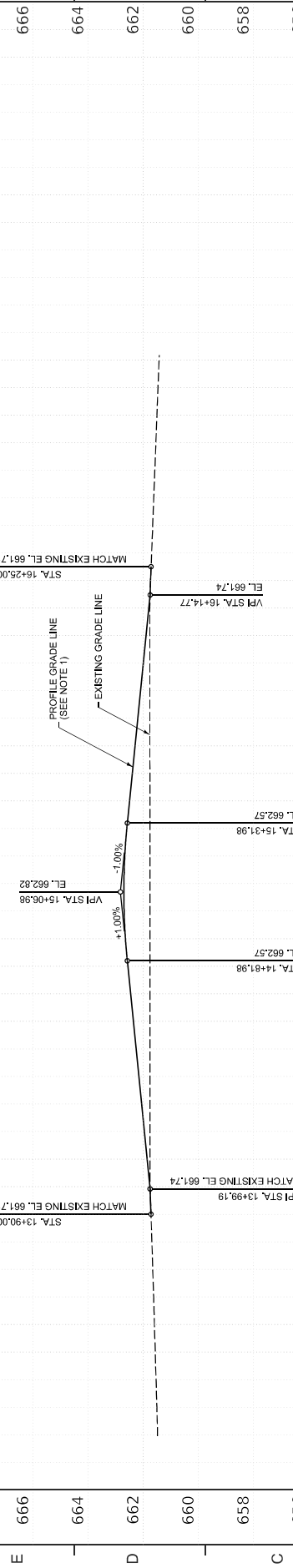
OHARE INTERNATIONAL AIRPORT
CITY OF CHICAGO
PACKAGE SUBMITTAL DOCUMENT OF AVIATION
PROJECT NO. 15-000000
DRAWING NO. 15-000000
DATE: 02/21/19
DESIGNED BY: JAMIE L. RICE
CHECKED BY: JAMIE L. RICE
CONSULTANT: JEPSTEIN

JEPSTEIN

600 W. FULTON
MILWAUKEE, IL 60641
T: 312.454.4300 E: 312.558.1217



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|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 666 | 664 | 662 | 660 | 658 | 656 | 654 | 652 | 646 | 644 | 642 |
| PR PGL | PR PGL | PR PGL | PR PGL | PR PGL | PR PGL | PR PGL | PR PGL | PR PGL | PR PGL | PR PGL |
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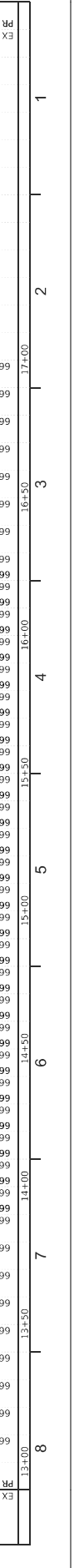
- SEE STRUCTURAL PLANS FOR PROPOSED DECK ELEVATIONS.
- SEE SHEET C 07 001 THROUGH C 07 003 FOR GUARDRAIL DETAILS.
- FOR THE LIMITS OF NEW GUARDRAIL, THE CONTRACTOR MUST REPLACE THE NEW SURFACE WITH ACCEPTABLE MATERIALS AND FINISHES ON THE 100' STANDARD DETAILS.

RECURCULATION
BRIDGE REPLACEMENT

PLAN AND PROFILE

DESIGNED: TG DRAWING: CS CHECKED: VI
PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO. C 03 003
REVISION



APPROVED AS WORKING PLAN
DATE: 02/21/19

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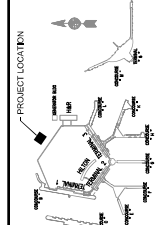
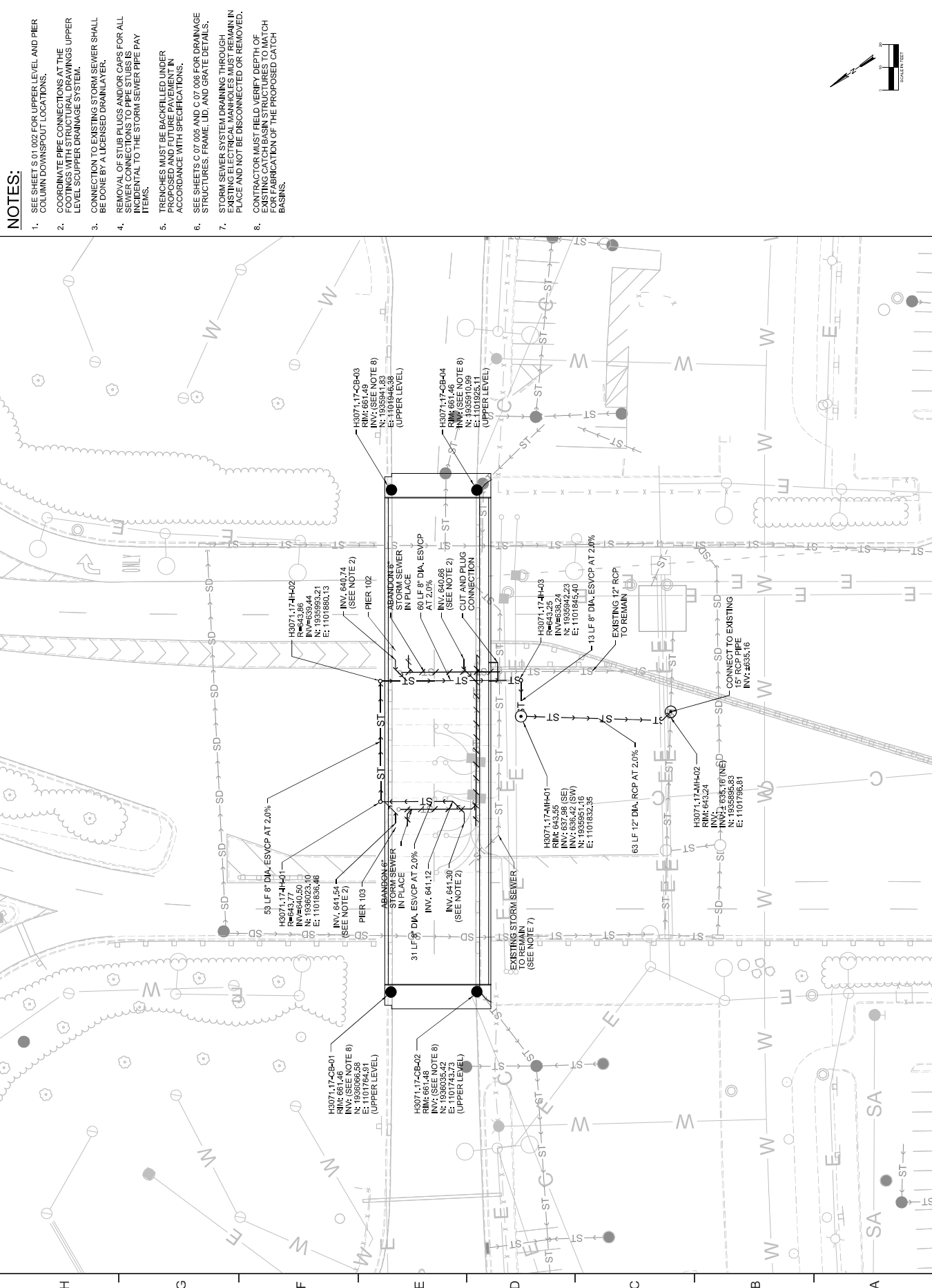
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NOTES:

- SEE SHEET S 01 002 FOR UPPER LEVEL AND PIER COLUMN DOWNSPOUT LOCATIONS.
- COORDINATE PIPE CONNECTIONS AT THE FOOTINGS WITH STRUCTURAL DRAWINGS UPPER LEVEL SCUPPER DRAINAGE SYSTEM.
- CONNECTION TO EXISTING STORM SEWER SHALL BE DONE BY A LICENSED DRAINLAYER.
- REMOVAL OF STUB PLUGS AND/OR CAPS FOR ALL SEWER CONNECTIONS TO PIPE STUBS IS NECESSARY UP TO THE STORM SEWER PIPE PAY ITEMS.
- TRENCHES MUST BE BACKFILLED UNDER STRUCTURES AND SHALL BE FINISHED IN ACCORDANCE WITH SPECIFICATIONS.
- SEE SHEETS C 07 005 AND C 07 008 FOR DRAINAGE STRUCTURES, FRAME, LID, AND GRATE DETAILS.
- STORM SEWER SYSTEM DRAINING THROUGH EXISTING ELECTRICAL MANHOLES MUST REMAIN IN PLACE AND NOT BE DISCONNECTED OR REMOVED.
- CONTRACTOR MUST FIELD VERIFY DEPTH OF EXISTING CATCH BASIN STRUCTURES TO MATCH FOR FABRICATION OF THE PROPOSED CATCH BASINS.



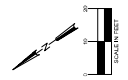
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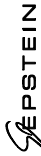
REINFORCEMENT
BRIDGE REPLACEMENT

| | |
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| SHEET TITLE: DRAINAGE PLAN LOWER LEVEL | |
| DESIGNED: KH | DRAWN: KH |
| CHECKED: VI | |
| PROJECT NO.: H3073.15-00 | DATE: 02/21/19 |
| SHEET NO. C 04 001 | REVISION |

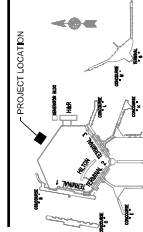




CHICAGO INTERNATIONAL AIRPORT
 CITY OF CHICAGO
 DEPARTMENT OF AVIATION
 PROJECT MANAGER: EMANUEL
 HAYES
 JAMIE L. REE
 CONSULTANT



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 CHICAGO, IL 60607
 T: 312.454.9100 E: 312.558.1217



APPROVED AS WORKING PLAN
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| REV | DATE | DESCRIPTION |
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| 002119 | | ISSUED FOR BID |

PROJECT NAME:

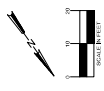
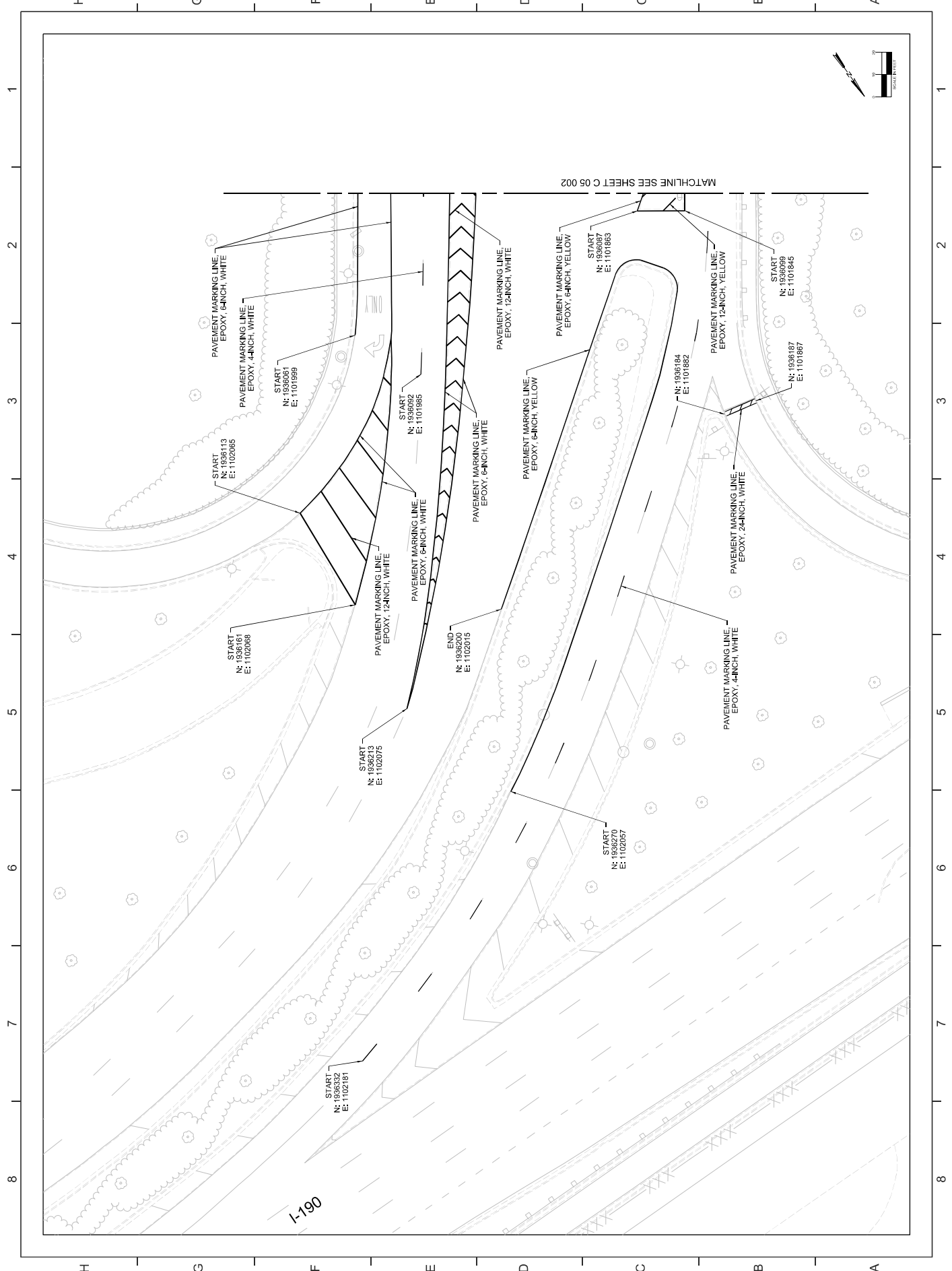
REIRCULATION
 BRIDGE REPLACEMENT

SHEET TITLE:
**PAVEMENT MARKING
 PLAN**

DESIGNED: KH DRAWN: KH CHECKED: VI

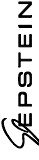
PROJECT NO.: H3073.15-00
 DATE: 02/21/19

SHEET NO. **C 05 001** REV: 00/00

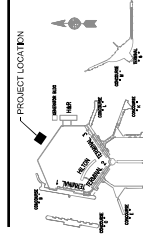




CHICAGO DEPARTMENT OF AVIATION
 O'HARE INTERNATIONAL AIRPORT
 CITY OF CHICAGO
 AIRPORT DEPARTMENT OF AVIATION
 HAYWARD EMANUEL
 JAMIE L. FRIE
 CONSULTANT



600 W. FULTON
 CHICAGO, IL 60609
 T. 312.464.9100 E. 312.558.1217



APPROVED AS WORKING PLAN
 BY: [Signature]

| REV. | DATE | DESCRIPTION |
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| 3 | 06/22/18 | ISSUED FOR PROCUREMENT |
| 2 | 06/08/18 | ISSUED FOR 100% |
| 1 | 05/04/18 | ISSUED FOR 90% |

PROJECT NAME:
 RECIRCULATION
 BRIDGE REPLACEMENT

SHEET TITLE:
 PAVEMENT MARKING
 PLAN

DESIGNED: KH
 DRAWN: KH
 CHECKED: VI

PROJECT NO.: H3073.15-00
 DATE: 02/21/19

SHEET NO. REVISOR
C 05 003



MATCHLINE SEE SHEET C 05 002

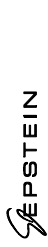
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 E: 1102166

PAVEMENT MARKING LINE,
 EPOXY, 4INCH, WHITE



**CHICAGO INTERNATIONAL AIRPORT
CITY OF CHICAGO
DEPARTMENT OF AVIATION**

JAMIE L. REE
CONSULTANT



600 W. FULLTON
T. 312-454-9100 F. 312-458-1217

SOIL EROSION CONTROL AND SEDIMENT CONTROL NOTES

APPROVED STATE OR LOCAL PLANS

THE MANAGEMENT PRACTICES, CONTROLS, AND OTHER PROVISIONS CONTAINED IN THIS PLAN HAVE BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE ILLINOIS ENVIRONMENTAL PROTECTION ACT (625 ICS/100.1) AND THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, DATED DECEMBER 2002, ILLINOIS ADMINISTRATIVE CODES 625.100 AND SOIL EROSION AND SEDIMENTATION PLAN THAT INCORPORATED BY REFERENCE AND ARE ENFORCEABLE UNDER THIS PERMIT EVEN IF THEY ARE NOT SPECIFICALLY INCLUDED IN THE PLAN.

MAINTENANCE

VEGETATION, EROSION AND SEDIMENT CONTROL MEASURES AND OTHER PROTECTIVE MEASURES MUST BE MAINTAINED IN GOOD AND EFFECTIVE OPERATING CONDITIONS AND (2) MUST BE MAINTAINED IN GOOD AND EFFECTIVE OPERATING CONDITIONS FOR EACH SPECIFIC EROSION AND SEDIMENT CONTROL MEASURE, MAINTENANCE AND REPAIRS. CONTRACTOR MUST REFER TO THE ILLINOIS URBAN MANUAL STANDARD PRACTICES.

INSPECTIONS

THE COMMISSIONER AND CONTRACTOR MUST PROVIDE QUALIFIED PERSONNEL TO INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE WHICH HAVE NOT BEEN FINALLY INSPECTED AND APPROVED BY THE COMMISSIONER. SUCH INSPECTIONS MUST BE CONDUCTED AT LEAST ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION MUST BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR EROSION AND SEDIMENTATION. MEASURES IDENTIFIED IN THE PLAN MUST BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY MUST BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE WHERE THEY ARE SUPPOSED TO BE LOCATED AND WHETHER THEY ARE FUNCTIONING AS INTENDED. WHERE VEHICLES ENTER OR EXIT THE SITE MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.

AT THE DISCRETION OF THE COMMISSIONER, KOSWCOD, OR UNITED STATES ARMY CORPS OF ENGINEERS (USACE), VIOLATIONS FOUND DURING INSPECTIONS MUST BE CORRECTED WITHIN SEVEN (7) DAYS IF MINOR, THREE (3) DAYS IF MODERATE, AND IMMEDIATELY IF SEVERE.

THE CONTRACTOR MUST PREPARE REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAMES AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, THE RESULTS OF THE INSPECTION, THE ACTIONS TAKEN, THE REPORT THIS STORMWATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN. THE REPORT MUST BE MADE AND RETAINED AS PART OF THE PLAN FOR AT LEAST THREE (3) YEARS AFTER THE DATE OF THE INSPECTION. THE REPORT MUST BE SIGNED IN ACCORDANCE WITH PART 116.0 OF THE GENERAL FEMT.

IF ANY VIOLATION OF THE PROVISIONS OF THIS PLAN IS IDENTIFIED DURING THE INSPECTION, THE CONTRACTOR MUST IMMEDIATELY CORRECT THE VIOLATION. THE ENGINEER OR COMMISSIONER'S REPRESENTATIVE MUST NOTIFY THE APPROPRIATE AGENCY FIELD OPERATIONS OFFICE OF THE IEPA BY EMAIL, TELEPHONE OR FAX WITHIN 24 HOURS OF ANY INCIDENT OF NON-COMPLIANCE (ON OR FOR VIOLATIONS OF ANY CONDITION OF THE PERMIT). ADDITIONALLY, THE COMMISSIONER'S REPRESENTATIVE MUST FILE WITHIN 24 HOURS OF ANY INCIDENT OF NON-COMPLIANCE WITH THE IEPA A REPORT OF NON-COMPLIANCE AND WILL INCLUDE SPECIFIC INFORMATION ON THE CAUSE OF NON-COMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT FURTHER CAUSES OF NON-COMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT WHICH MAY HAVE RESULTED FROM THE VIOLATION. THE REPORT OF NON-COMPLIANCE MUST BE SIGNED BY THE ENGINEER OR COMMISSIONER'S REPRESENTATIVE AND MAILED TO THE COMMISSIONER'S REPRESENTATIVE AT THE FOLLOWING ADDRESS:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
ATTN: COMPLIANCE ASSURANCE SECTION
POST OFFICE BOX 19276
SPRINGFIELD, IL 62794-9276

NON-STORMWATER DISCHARGES
EXCEPT FOR FLOWS FROM FIRE FIGHTING ACTIVITIES, THE FOLLOWING SOURCES OF NON-STORMWATER MAY BE COMBINED WITH STORMWATER DISCHARGES ASSOCIATED WITH THE INDUSTRIAL ACTIVITY ADDRESSED IN THIS PLAN:

- WATERS USED TO CONTROL DUST

THE PERMITTEE MUST ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION AND EROSION AND SEDIMENT CONTROL MEASURES FOR THE NON-STORMWATER COMPONENTS OF THE DISCHARGE.

DURING DEMATERING OPERATIONS, WATER MUST BE PUMPED INTO FILTER BAGS, SEDIMENT TRAPS OR SILT TRAPS, FILTERED WATER MUST BE DISCHARGED ONTO STABILIZED SURFACE TO PREVENT ADDITIONAL EROSION AND SEDIMENTATION.

STORMWATER MANAGEMENT

THE FOLLOWING STORMWATER MANAGEMENT PRACTICES, AS A MINIMUM, MUST BE IMPLEMENTED TO CONTROL SEDIMENT FROM THE DISTURBED AREAS ON-SITE:

- PERIMETER EROSION BARRIER (SILT FENCE)
- AREA INLET OR GLEBE INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE, HALL, ROAD, STAGING AREA

STRUCTURAL PRACTICES MUST BE IMPLEMENTED, TO THE DEGREE ATTAINABLE, TO PREVENT AND REDUCE POLLUTANTS FROM EXPOSED AREAS OF THE SITE. THE INSTALLATION OF THESE DEVICES MAY BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.

STORMWATER MANAGEMENT PRACTICES MUST BE INSTALLED DURING THE CONSTRUCTION OF THIS PROJECT TO PREVENT EROSION AND SEDIMENTATION FROM OCCURRING OFF-SITE. THESE DEVICES MUST BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.

TEMPORARY SEDIMENT BASINS/TRAPS MUST BE CONSTRUCTED TO COLLECT SEDIMENT AND HAVE A STABILIZED OUTLET INSTALLED TO PREVENT ADDITIONAL SEDIMENT INTO THE DISCHARGE POINT OF PUMPS TO PREVENT SCOURING THE WALLS OF THE BASIN/TRAP. THE USE OF POLYMERS AND/OR BARRIERS MAY BE REQUIRED IN THE SEDIMENT BASINS/TRAPS IF THE WATER QUALITY IS NOT IMPROVED SUFFICIENTLY WITH SEDIMENT BASINS/TRAPS ALONE.

TEMPORARY CONSTRUCTION ENTRANCES AND EXITS MUST BE CONSTRUCTED AT ALL ACCESS POINTS TO THE SITE. ALL CONSTRUCTION TRUCKS AND EQUIPMENT ON THE HALL, ROADS MUST NOT DRAIN DIRECTLY TO WATERS OF THE U.S.

STORMWATER MANAGEMENT

THE FOLLOWING STORMWATER MANAGEMENT PRACTICES, AS A MINIMUM, MUST BE IMPLEMENTED TO CONTROL POLLUTANTS IN STORMWATER DISCHARGES THAT WILL OCCUR AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED.

- INFILTRATION OF ON-SITE RUNOFF

STORMWATER MANAGEMENT PRACTICES MUST BE INSTALLED DURING THE CONSTRUCTION OF THIS PROJECT TO PREVENT EROSION AND SEDIMENTATION FROM OCCURRING OFF-SITE. THESE DEVICES MUST BE SUBJECT TO SECTION 404 OF THE CLEAN WATER ACT.

THE PRACTICES SELECTED FOR IMPLEMENTATION WERE DETERMINED ON THE BASIS OF THE TECHNICAL GUIDANCE CONTAINED IN IEPA'S STANDARD SPECIFICATIONS FOR SOIL EROSION AND SEDIMENTATION CONTROL, AND OTHER ORDINANCES LISTED IN THE SPECIFICATIONS.

VELOCITY DISPENSATION DEVICES MUST BE PLACED AT DISCHARGE LOCATIONS AND ALONG THE LENGTH OF ANY OUTFALL CHANNEL AS NECESSARY TO PROVIDE A SUFFICIENTLY LONG CHANNEL TO PERMIT SEDIMENT AND EROSION CONTROL MEASURES TO REMAIN IN PLACE AND FUNCTION AS INTENDED. SUCH DEVICES MUST BE MAINTAINED AND PROTECTED (I.E., MAINTENANCE OF HYDROLOGIC CONDITIONS, SUCH AS VEGETATION AND HYDRODYNAMICS) PRESENT PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITIES.

OTHER CONTROLS

WASTE DISPOSAL: THE SOLID WASTE MATERIALS INCLUDING TRASH, CONSTRUCTION DEBRIS, EXCESS CONSTRUCTION MATERIALS, MACHINERY, TOOLS AND OTHER ITEMS MUST BE STORED AND HANDLED IN A MANNER THAT PREVENTS POLLUTION FROM OCCURRING ON THE SITE WILL NOT BE PERMITTED. THE NECESSARY DISPOSAL PERMITS, INCLUDING MATERIALS, MUST BE DISCHARGED INTO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

CONCRETE WASHOUT FACILITIES MUST BE PROVIDED FOR THE CONTAINMENT OF WATER FROM CONSTRUCTION TRUCKS, WASHING CONCRETE TRUCKS WITHOUT A CONTAINMENT FACILITY IS PROHIBITED.

THE PROVISIONS OF THIS PLAN MUST ENSURE AND DEMONSTRATE COMPLIANCE WITH FEDERAL, STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.

THIS SECTION OF THE PLAN ADDRESSES THE VARIOUS CONTROLS THAT MUST BE IMPLEMENTED FOR EACH OF THE MAJOR CONSTRUCTION ACTIVITIES DESCRIBED ABOVE. FOR EACH MEASURE DISCUSSED, THE CONTRACTOR WILL BE RESPONSIBLE FOR ITS IMPLEMENTATION, VERIFICATION, AND MAINTENANCE. THE REQUIRED EROSION CONTROL PLAN DRAWINGS INCLUDED DEFINE THE SIZE AND LOCATION OF THE MEASURES TO BE INSTALLED DURING THE CONSTRUCTION OF THIS PROJECT. THE POLYMER SEEDING PLAN MUST BE DESIGNED FOR A STORM EVENT EQUAL TO OR GREATER THAN A 25-YEAR 24-HOUR RAINSTORM EVENT.

CONTROL:

THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE 0.27 ACRES. THE TOTAL AREA OF THE SITE THAT IS ESTIMATED TO BE DISTURBED BY EXCAVATION, GRADING, OR OTHER CONSTRUCTION ACTIVITIES IS 0.20 ACRES.

1. UTILITY WORK
2. PAVING

THE FOLLOWING INTERIM AND PERMANENT STABILIZATION PRACTICES, AS A MINIMUM, MUST BE IMPLEMENTED TO STABILIZE THE DISTURBED AREA OF THE SITE:

- DUST CONTROL (WATER OR POLYMER)

INTERIM AND PERMANENT STABILIZATION PRACTICES, INCLUDING SITE-SPECIFIC SCHEDULING OF THE IMPLEMENTATION OF THE PRACTICES, ARE INCLUDED IN THIS STORMWATER POLLUTION PREVENTION PLAN. SITE PLANS MUST ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE ARE STABILIZED WITH STRAW MULCH, TEMPORARY PRESERVATION OF EXISTING VEGETATION, AND OTHER APPROPRIATE MEASURES. THE SURFACE OF STRIPPED AREAS MUST BE STABILIZED WITH MULCH, POLYMER SEEDING, AND EROSION CONTROL MEASURES. AFTER FINAL GRADING IS COMPLETED, TEMPORARY SEDIMENT CONTROL MEASURES MUST BE MAINTAINED CONTINUOUSLY UNTIL PERMANENT COVER IS ESTABLISHED. ANY OPEN DITCH OR SWALE MUST BE STABILIZED 24 HOURS AFTER THESE DITCHES. NO PART OF THE DITCH OR SWALE MUST BE LEFT UNSTABLE FOR MORE THAN 7 DAYS.

STABILIZATION PRACTICES - IMPLEMENTATION REQUIREMENTS

WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14th DAY AFTER CONSTRUCTION ACTIVITIES CEASED IS REQUIRED BY THE PERMIT, STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE THEREAFTER.

- WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 14 DAYS FROM WHEN ACTIVITY CEASED, (E.G., THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS HALTED FOR MORE THAN 14 DAYS), TEMPORARY STABILIZATION MEASURES MUST BE INITIATED BY THE 14th DAY AFTER CONSTRUCTION ACTIVITY HAS STOPPED, STOCKPILES OF MATERIALS MUST BE COVERED WITH STRAW MULCH, POLYMER SEEDING, AND EROSION CONTROL MEASURES.

- STRIPPED AREAS THAT WILL REMAIN UNDISTURBED FOR MORE THAN 14 DAYS AFTER INITIAL DISTURBANCE MUST BE PROTECTED FROM EROSION WITHIN 7 DAYS FROM WHEN CONSTRUCTION ACTIVITIES HAVE CEASED IN THAT AREA.

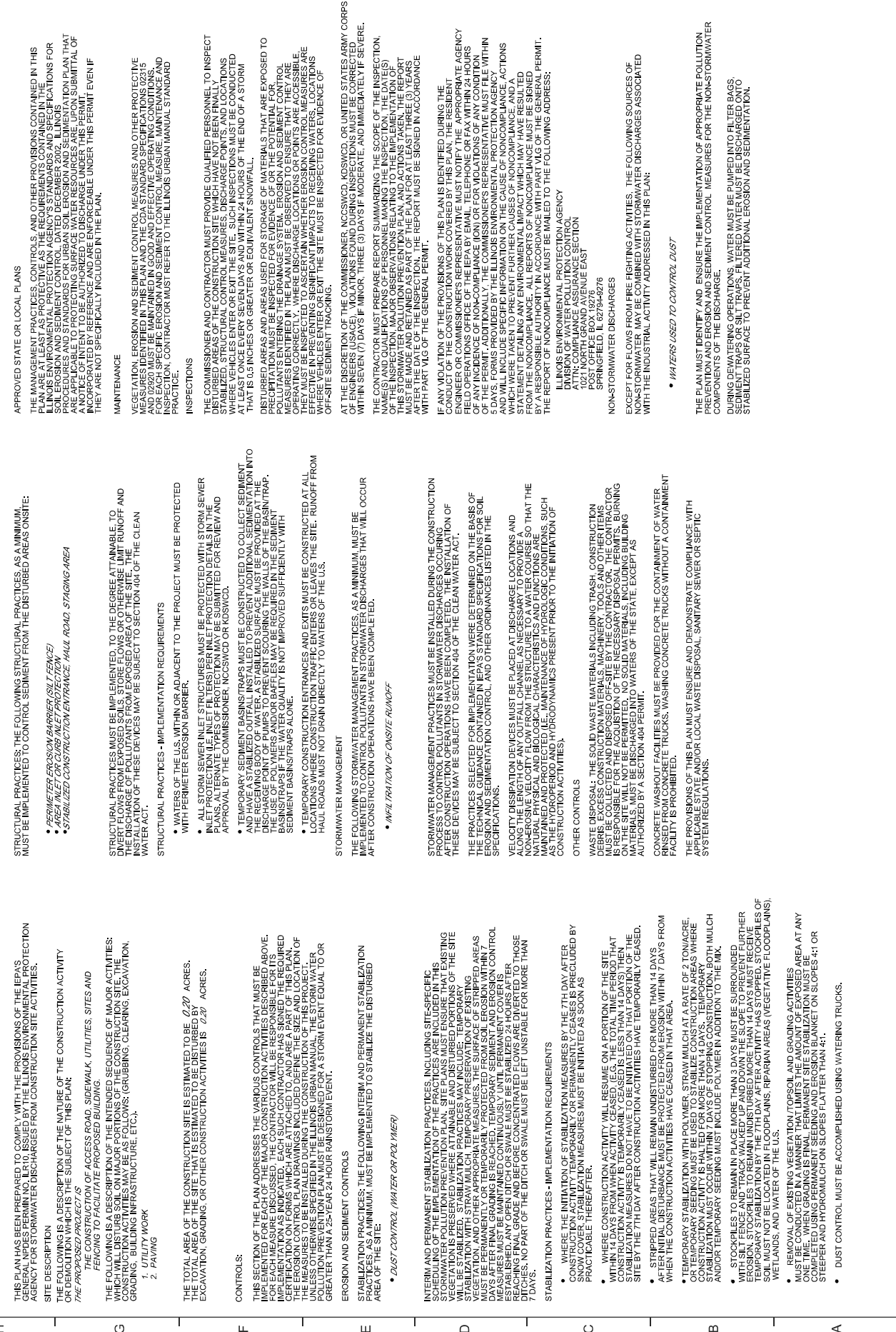
- TEMPORARY STABILIZATION WITH POLYMER, STRAW MULCH AT A RATE OF 2 TON/ACRE OR TEMPORARY SEEDING MUST BE USED TO STABILIZE CONSTRUCTION AREAS WHERE CONSTRUCTION ACTIVITY IS HALTED FOR MORE THAN 14 DAYS. TEMPORARY MULCH AND/OR TEMPORARY SEEDING MUST INCLUDE POLYMER IN ADDITION TO THE MX.

- STOCKPILES OF MATERIALS PLACED MORE THAN 30 DAYS MUST BE SURROUNDED WITH SILT FENCE AND MULCH WITHIN 30 DAYS AND 200 GALS OF POLYMER PER ACRE. TEMPORARY STABILIZATION BY THE 7th DAY AFTER ACTIVITY HAS STOPPED. STOCKPILES OF MATERIALS AND WATER OF THE U.S.

- ALL GRAZING AND MOWING ACTIVITIES, AND GRASSING ACTIVITIES MUST BE CONDUCTED IN A MANNER THAT LIMITS THE AMOUNT OF EXPOSED AREA AT ANY ONE TIME. WHEN GRADING IS FINAL, PERMANENT SITE STABILIZATION MUST BE COMPLETED USING PERMANENT SEEDING AND EROSION BLANKET ON SLOPES 4:1 OR STEEPER AND HYDROMULCH ON SLOPES FLATTER THAN 4:1.

- DUST CONTROL MUST BE ACCOMPLISHED USING WATERING TRUCKS.

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SOIL EROSION CONTROL AND SEDIMENT CONTROL NOTES

- 16. CONSTRUCTION ACTIVITIES MUST BE SCHEDULED TO MINIMIZE THE TIME SOIL IS EXPOSED AND UNPROTECTED. IN NO CASE WILL THE EXISTING VEGETATION BE DESTROYED, REMOVED, OR DISTURBED MORE THAN FOURTEEN (14) DAYS PRIOR TO THE INITIATION OF IMPROVEMENTS.
- 19. TEMPORARY CONSTRUCTION ENTRANCES WILL BE CONSTRUCTED AT ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES THE SITE.
- 20. GRAVELED ROADS, ACCESS DRIVES, PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH, AND VEHICLE WASH DOWN FACILITIES IF NECESSARY, MUST BE PROVIDED TO PREVENT THE DEPOSIT OF SOIL FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADSWAYS. ANY SOIL REACHING PUBLIC OR PRIVATE ROADWAY MUST BE REMOVED IMMEDIATELY.
- 21. IF THE VOLUME, VELOCITY, SEDIMENT LOAD, OR PEAK FLOW RATE OF STORMWATER RUNOFF ARE TEMPORARILY INCREASED DURING CONSTRUCTION, THEN PROPERTIES AND SPECIAL MANAGEMENT AREAS DOWNSTREAM FROM SUCH DEVELOPMENT SITES MUST BE PROTECTED FROM EROSION.
- 22. WHEN THE CONSTRUCTION IS COMPLETED, THE SITE HAS BEEN FULLY STABILIZED AND ALL DISCHARGES OF STORMWATER AUTHORIZED BY THE PERMIT HAVE BEEN ELIMINATED, THE CONTRACTOR MUST PROVIDE A LETTER TO THE COMMISSIONER OR COMMISSIONER'S REPRESENTATIVE STATING THESE FACTS.
- 23. AFTER THE SITE HAS BEEN PERMANENTLY STABILIZED AND ANY/ALL STORMWATER DISCHARGES, AUTHORIZED UNDER THE ILR10 PERMIT, ARE ELIMINATED, THE COMMISSIONER WILL SUBMIT A COMPLETED NOTICE OF TERMINATION (NOT SIGNED IN ACCORDANCE WITH PART VI.G (SIGNATORY REQUIREMENTS)) OF THE ILR10 PERMIT TO IEPA.

- 1. THE CONTRACTOR SHALL CONTACT THE NORTH COOK COUNTY SOIL AND WATER CONSERVATION DISTRICT (NCCSWCD) ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE. ONE WEEK PRIOR TO LAND DISTURBING ACTIVITY, AS SOON AS THE INITIAL EROSION CONTROL ITEMS ARE INSTALLED AND ONE WEEK PRIOR TO FINAL INSPECTION.
- 2. THE COMMISSIONER IS REQUIRED TO SUBMIT A NOTICE OF INTENT (NOI) TO THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA) FOR THE PROJECT. THE CONTRACTOR IS NOT PERMITTED TO BEGIN WORK UNTIL 30 DAYS FOLLOWING COMMISSIONER'S SUBMITTAL OF THE NOI.
- 3. SOIL EROSION AND SEDIMENT CONTROL (SESC) MEASURES MUST BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF UPLAND DISTURBANCE AND SURFACE CONSTRUCTION. CONSTRUCTION MUST BE SCHEDULED TO MINIMIZE EROSION AND STABILIZATION MEASURES MUST CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY AND/OR PERMANENT MEASURES. DISTURBANCE OF AREAS NOT INCLUDED IN THE DESIGN WILL REQUIRE NOTIFICATION OF THE NCCSWCD OR KDSWCD IN ACCORDANCE WITH THE 404 PERMIT SPECIAL CONDITIONS.
- 4. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED AT MINIMUM ACCORDING TO THE STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL, REVISED TO LATEST VERSION AS AMENDED. A COPY OF THE APPROVED STORMWATER POLLUTION PREVENTION PLAN MUST BE MAINTAINED ON THE SITE AT ALL TIMES.
- 5. THE EROSION CONTROL SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED AS DIRECTED BY THE COMMISSIONER'S REPRESENTATIVE OR THE NCCSWCD, KDSWCD, OR USACE. ALL ADDITIONAL MEASURES MUST BE IN PLACE WITHIN 3 DAYS OF DISTURBANCE AND ANY EMERGENCY SESC MEASURES MUST BE INSTALLED IMMEDIATELY AT THE DISCRETION OF NCCSWCD.
- 6. PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES OTHER THAN THOSE INDICATED ON THE PLANS (INCLUDING BUT NOT LIMITED TO ADDITIONAL PHASES OF THE DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS), A SUPPLEMENTAL EROSION CONTROL PLAN MUST BE SUBMITTED TO THE COMMISSIONER FOR REVIEW BY NCCSWCD. THE CONTRACTOR BASED ON THE COMMENTS OF THE COMMISSIONER'S REPRESENTATIVE MUST REVISE THE PLAN TO REFLECT ANY CHANGES. ANY CHANGES DEPEND ON MODIFICATION TO THE WORK SCHEDULE. THE CONTRACTOR MUST SUBMIT DRAWINGS TO THE NCCSWCD FOR REVIEW.
- 7. THE CONTRACTOR MUST CLEAN UP, GRADE THE WORK AREA, AS THE PROJECT PROGRESSES, AND INSTALL EROSION PROTECTION TO ELIMINATE THE CONCENTRATION OF RUNOFF, OR MUST INSTALL APPROPRIATE SEDIMENT CONTROL DEVICES TO TRAP SEDIMENT. PAVEMENT MUST BE CLEANED DAILY OR AS NECESSARY TO REMOVE EARTHEN MATERIAL TO THE SATISFACTION OF THE COMMISSIONER, NCCSWCD, OR KDSWCD.
- 8. THE CONTRACTOR AND SUBCONTRACTORS MUST SUBMIT A WRITTEN AND SIGNED (BY CONTRACTOR) STORMWATER POLLUTION PREVENTION PLAN (SWPPP), MEETING THE REQUIREMENTS OF THE IEPA'S CURRENT NPDES STORM WATER PERMIT FOR CONSTRUCTION SITE ACTIVITIES, INCLUDING DETAILS OF SPECIFIC DEVICES SUCH AS SILT FENCE, DITCH CHECK, ETC. TO BE UTILIZED FOR EROSION AND SEDIMENT CONTROL. THE PLAN MUST BE SUBMITTED AND APPROVED BY THE COMMISSIONER A MINIMUM OF FIVE DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
- 9. THE COMMISSIONER'S REPRESENTATIVE WILL BE AVAILABLE TO THE CONTRACTOR UPON REQUEST TO ANSWER ANY QUESTIONS GIVEN TO THE COMMISSIONER'S REPRESENTATIVE FIVE DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
- 10. THE CONTRACTOR AND COMMISSIONER MUST MAKE A MINIMUM OF ONCE EVERY SEVEN DAYS OF THE FOLLOWING: 1) DISTURBED AREAS OF THE PROJECT SITE THAT HAVE NOT BEEN FULLY STABILIZED; 2) STRUCTURAL CONTROL MEASURES (SILT FENCE, DITCH CHECK, ETC.) THAT ARE NOT MAINTAINED AS LISTED ABOVE MUST BE MADE WITHIN TWENTY-FOUR (24) HOURS OF A 0.5-INCH OR GREATER RAINFALL OR EQUIVALENT SNOWFALL.
- 11. THE CONTRACTOR AND COMMISSIONER MUST KEEP A WRITTEN REPORT SUMMARIZING THE REQUIRED INSPECTION EACH TIME AN INSPECTION TAKES PLACE. THE REPORTS MUST BE KEPT AT THE SITE DURING CONSTRUCTION. THE REPORTS MUST ALSO BE RETAINED FOR THREE YEARS FROM THE DATE THE SITE IS FINALLY STABILIZED.
- 12. THE COMMISSIONER'S REPRESENTATIVE MUST NOTIFY THE APPROPRIATE AGENCY FIELD OPERATIONS OFFICE OF THE IEPA BY PHONE OR BY MAIL AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION. THE NOTIFICATION MUST INCLUDE THE DATE OF THE PERMIT, AND FILE WITHIN FIVE (5) DAYS WITH THE IEPA. AN INCIDENCE OF NONCOMPLIANCE (ICON) FORM WHEN REQUIRED BY THE PERMIT.
- 13. THE CONTRACTOR MUST COOPERATE WITH THE COMMISSIONER'S REPRESENTATIVES WHO WILL MAKE SITE VISITS TO REVIEW COMPLIANCE WITH THE PLAN IN THE FIELD AND AUDIT THE LOGS AND RECORDS REQUIRED BY THE PERMIT.
- 14. DURING DEWATERING OPERATIONS, REMOVAL AND RESTORATION OF THE AREA DISTURBED BY THE PLACEMENT OF THE PERIMETER EROSION BARRIER ARE INCLUDED IN THE CONTRACT. AFTER ALL PERIMETER EROSION BARRIER IS REMOVED, THE AREAS DAMAGED BY THE PERIMETER EROSION BARRIER MUST BE RESTORED.
- 15. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO FILTER BAGS, SEDIMENT TRAPS, SILT TRAPS, OR POLYMER TREATMENT CHANNELS. FILTERED WATER SHOULD BE DISCHARGED ONTO STABILIZED SURFACE TO PREVENT ADDITIONAL EROSION AND/OR SEDIMENTATION. DEWATERING DIRECTLY INTO FIELD TILES, STORM WATER STRUCTURES, OR WATERS OF THE U.S. IS PROHIBITED.
- 16. THE CONTRACTOR MUST CONSULT WITH A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC) FOR THE DESIGN AND MAINTENANCE OF SEDIMENTATION BASINS WITH Baffle SYSTEM AND TRAPS AS WELL AS POLYMERS AND FLOC LOGS.
- 17. ALL STORM SEWER INLET STRUCTURES MUST BE PROTECTED WITH STORM SEWER INLET PROTECTION (I.E. INLET FILTERS) PER INLET PROTECTION DETAILS IN THE PLANS. ALTERNATE TYPES OF PROTECTION MAY BE SUBMITTED FOR REVIEW AND APPROVAL BY THE COMMISSIONER, NCCSWCD OR KDSWCD.
- 18. THE CONTRACTOR MUST MAINTAIN AND PRESERVE ANY EXISTING SUB-SURFACE DRAINAGE SYSTEMS (I.E. FIELD TILES) ACCORDING TO THE SDA DESIGN AND CONSTRUCTION STANDARDS.

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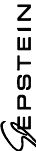
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REIRCULATION
BRIDGE REPLACEMENT

CONSTRUCTION OF
EROSION AND SEDIMENT
CONTROL PLAN GENERAL
CONDITIONS



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| CONTROL MEASURE GROUP | KEY | CONTROL MEASURE | CONTROL MEASURE CHARACTERISTICS | TEMPORARY | PERMANENT |
|-----------------------|-----|--|---|-----------|-----------|
| VEGETATIVE COVER | AC | AGGREGATE COVER | PROVIDES SOIL COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF-SITE. | X | X |
| | EB | EROSION BLANKET | PROTECTS SOIL FROM EROSION AND IMPACTS AND SOIL FROM FLOW DURING THE ESTABLISHMENT OF VEGETATION. IMPACTS SOIL MOISTURE LOSS DUE TO EVAPORATION. | X | X |
| | GT | GEOTEXTILE FABRIC | A PERMEABLE GEOSYNTHETIC FABRIC USED TO ENHANCE WATER MOVEMENT AND SOIL MOISTURE. PROVIDES A BLANKET TO ADD REINFORCEMENT WHERE VEGETATION CANNOT BE ESTABLISHED. | X | X |
| | M | MULCHING | ADDED INSURANCE OF A SUCCESSFUL, TEMPORARY OR PERMANENT SEEDING. CONTROLS UNWANTED VEGETATION AND PRESERVES MOISTURE. PROVIDES COVER WHERE VEGETATION CANNOT BE ESTABLISHED. | X | X |
| | P | PAVING | PROTECTS SOIL FROM EROSION AND IMPACTS AND SOIL FROM FLOW DURING THE ESTABLISHMENT OF VEGETATION. IMPACTS SOIL MOISTURE LOSS DUE TO EVAPORATION. | X | X |
| | PH | POLYMER POWDERED FORM | A WATER SOLUBLE POLYACRYLAMIDE (PAM) IN POWDER FORM. USED FOR EROSION CONTROL WHEN BROADCAST ON DISTURBED SOIL. | X | X |
| | LA | LINED APRON | PROTECTS DOWNSTREAM CHANNELS AND FLAT AREAS FROM HIGH VELOCITY FLOWS. USED TO PREVENT EROSION OF CHANNEL BEDS. | X | X |
| | DS | DOMINANT SEEDING | SAME AS PERMANENT SEEDING EXCEPT BEGONE DURING DORMANT SEASON. HIGHER RATES OF SEED APPLICATION ARE REQUIRED. | X | X |
| | PS | PERMANENT SEEDING | PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION. FILTERS SEDIMENT FROM WATER. MAY BE PART OF FINAL LANDSCAPE PLAN. | X | X |
| | PT | PLANTS, TREES, & SHRUBS | VEGETATION. MAY BE USED AS PART OF A FINAL LANDSCAPE PLAN ALONG WITH SHRUBS AND TREES. | X | X |
| DEWATERING | SO | SODDING | QUICK PERMANENT COVER TO CONTROL EROSION. QUICK WAY TO ESTABLISH VEGETATION. SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE. | X | X |
| | TS | TEMPORARY SEEDING | PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE. | X | X |
| | VF | VEGETATIVE FILTER | USED ALONG DRAINAGEWAYS OR PROPERTY LINES TO FILTER SEDIMENT FROM RUNOFF. A NATURAL FIBER MESH USED FOR EROSION AND SEDIMENT CONTROL. REMOVE SUSPENDED SEDIMENT FROM STORM WATER. | X | X |
| | JN | JUTE NETTING | REMOVE SUSPENDED SEDIMENT FROM STORM WATER. TO BE USED IN SLOPED AREAS WITH SOIL BINDING CONDITIONS. | X | X |
| | FL | POLYMER FLOC LOG FORM | A WATER SOLUBLE POLYACRYLAMIDE (PAM) IN POWDER FORM. USED IN CONJUNCTION WITH FLOC LOGS AND JUTE IN FLOWING CONDITIONS. TO REMOVE SUSPENDED SEDIMENT. | X | X |
| | PH | POLYMER POWDERED FORM | A WATER SOLUBLE POLYACRYLAMIDE (PAM) IN POWDER FORM. USED IN CONJUNCTION WITH FLOC LOGS AND JUTE IN FLOWING CONDITIONS. TO REMOVE SUSPENDED SEDIMENT. | X | X |
| | SP | SUMP PIT AND FILTER BAG | WITH IMPROVED WATER QUALITY AND WITHOUT SEDIMENT. | X | X |
| | GP | GROUND INLET PROTECTION (JUTE LINER) | TEMPORARY PRACTICE TO CONTROL SEDIMENT AT STORM DRAIN INLET FOR INSIDE DISTURBED DRAINAGE AREAS. | X | X |
| | PF | PERFORATED PIPE | TEMPORARY PRACTICE TO CONTROL SEDIMENT AT STORM DRAIN INLET FOR ALL CONCRETE AND PAVED SURFACES. | X | X |
| | PC | CULVERT INLET PROTECTION - STONE | TEMPORARY PRACTICE TO CONTROL SEDIMENT AT CULVERT INLETS. | X | X |
| MUD & DUST CONTROL | XD | DUST AND TRAFFIC CONTROL | EROSION OF TEMPORARY CONSTRUCTION ACCESS ROUTES TO REDUCE EROSION OF TEMPORARY ROADS AND PARKING AREAS. | X | X |
| | SE | STABILIZED CONST. ENTRANCE | PREVENTS DUST FROM LEAVING CONSTRUCTION SITE. | X | X |
| | SF | SILT FENCE | PREVENTS MUD FROM BEING PICKED UP AND CARRIED OFF-SITE. | X | X |
| | XS | EXCAVATED SEDIMENT BASIN | USED FOR SINGLE LOSS OF DRAINAGE AREAS LESS THAN 1/2 ACRE TO CONTROL SEDIMENT FROM RUNOFF. | X | X |
| | ST | TEMPORARY SEDIMENT TRAPS | A TEMPORARY PONDING BASIN, WITH OUTLET STRUCTURE, FORMED BY CONSTRUCTION OF AN EMBANKMENT OR EXCAVATED BASIN TO TEMPORARILY TRAP SEDIMENT AND DEBRIS. USED WHEN DRAINAGE AREA IS GREATER THAN 1/2 ACRE. | X | X |
| | CS | CHANNEL DIVERSION | A TEMPORARY PONDING BASIN FORMED BY CONSTRUCTION OF AN EMBANKMENT OR EXCAVATED BASIN TO TEMPORARILY TRAP SEDIMENT AND DEBRIS. USED WHEN DRAINAGE AREA IS LESS THAN 1/2 ACRE. | X | X |
| | RD | RIDGE DIVERSION | IS NOT AVAILABLE AT TOP OR BASE OF SLOPES. USED WHEN EXCESS SOIL IS AVAILABLE. | X | X |
| | SD | SEASONAL CHECK STRUCTURE | TYPICALLY USED ABOVE SLOPES. USED WHERE AN EXCESS OF SOIL IS AVAILABLE. | X | X |
| | RC | ROCK CHECK DAM - COARSE AGGREGATE | A TIERING OR CONDUIT TO CONVEY CONCENTRATED RUNOFF DOWN A SLOPE WITHOUT CAUSING EROSION ABOVE OR BELOW THE SLOPE. | X | X |
| | RD | RIDGE CHECK DAM - RIP RAP | A ROCK DAM CONSTRUCTED ACROSS A SWALE OR DITCH TO REDUCE THE VELOCITY OF CONCENTRATED STORM WATER FLOWS. TO BE USED WHEN EACH DAM HAS A DRAINAGE AREA OF LESS THAN 2 ACRES. | X | X |
| ENCLOSED DRAINAGE | SL | SEDIMENT LOG | TEMPORARY PRACTICE TO REDUCE VELOCITY AND TRAP SEDIMENT CONJUNCTION WITH A WATERWAY. | X | X |
| | SD | STORM SEWER | USED TO COVER WITHIN AND AROUND EXISTING STORM SEWERS FOR BETTER WATERWAYS AND TO DIVERTE WASTES FROM CONCRETE CONSTRUCTION SITES. | X | X |
| | UD | UNDERDRAIN | A DRAINAGE SYSTEM TO REMOVE LIQUID AND SOLID WASTES FROM CONSTRUCTION SITES. | X | X |
| | OT | TOPSOILING | VEGETATION FOR SITE STABILIZATION WITH VEGETATION. | X | X |
| | LC | LINED CHANNEL | VEGETATION FOR FLOW OR WHERE VEGETATION CANNOT BE ESTABLISHED. | X | X |
| | SS | STRUCTURAL STREAMBANK STABILIZATION - TERRESTRIALS | PROTECTS THE STREAMBANKS FROM EROSION FORCE OF FLOWING WATER. | X | X |
| | CC | TEMPORARY CREEK CROSSING | CONSTRUCTION VEHICLES TO CROSS WITHOUT CAUSING SEDIMENTATION, STREAMBED DAMAGE, OR FLOODING. | X | X |
| | VC | VEGETATIVE CHANNEL | IS NOT AVAILABLE TO CHANNEL. USED WHEN VELOCITY OF FLOW IS NOT EXCEEDED FAST. | X | X |
| | NS | NATURAL CHANNEL STABILIZATION | PROTECTS STREAMBANKS FROM THE EROSION FORCE OF FLOWING WATER AND PROVIDES NATURAL PLEASING APPEARANCE. | X | X |

| ACTIVITY | RESPONSIBLE PARTY | DURATION |
|---|------------------------|---|
| STABILIZATION DURING CONSTRUCTION MAINTENANCE | COMMISSIONER | AT LEAST ONCE EVERY 7 CALENDAR DAYS TO MONITOR FOR STORM EVENTS THAT ARE 0.65 INCHES OR GREATER, OR EQUIVALENT SNOWFALL. |
| STABILIZATION DURING CONSTRUCTION-OBSERVATION | COMMISSIONER | AT LEAST ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT THAT IS 0.65 INCHES OR GREATER, OR EQUIVALENT SNOWFALL. |
| VEGETATION MAINTENANCE | CONTRACTOR | COMPLETION OF CONTRACT |
| VEGETATION AND STABILIZATION MAINTENANCE | DEPARTMENT OF AVIATION | ONGOING AFTER CONSTRUCTION COMPLETION |

| MOBILIZATION / IMPLEMENT EROSION CONTROL | DESCRIPTION OF CONSTRUCTION ACTIVITIES | FINAL STABILIZATION |
|--|--|---------------------|
| 10 DAYS | 105 DAYS | 10 DAYS |

| STABILIZATION TYPE | JAN. | FEB. | MAR. | APR. | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
|---------------------------------|------|------|------|------|-----|------|------|------|-------|------|------|------|
| TYPE 1 - OMP PERMANENT SEED MIX | | | | | | | | | | | | |
| TYPE 2 - LATE FALL SEED MIX | ** | | | | | | | | | | | |
| TYPE 3 - DORMANT SEED MIX | | | ** | | | | | | | | | |
| TEMPORARY SEEDING | | | | | | | | | | | | |
| EROSION BLANKET / HYDROMULCH | | | | | | | | | | | | |
| MULCH | | | | | | | | | | | | |
| POLYMERS | * | | | | | | | | | | | |

NOTE: 1. ALL EROSION AND SEDIMENT CONTROL PLAN SHEETS AND DETAILS ON THE JOB SITE AT ALL TIMES. 2. CONTRACTOR MUST RETAIN A SIGNED AND APPROVED COPY OF THE SWPPP. 3. ALL GRADING PLANS AND EXISTING CONDITIONS AND DEMOLITION PLANS AND STORM SEWER SYSTEMS. 4. ALL EROSION AND SEDIMENT CONTROL PLAN SHEETS AND DETAILS. 5. ASSOCIATED SPECIFICATIONS.

FOR PURPOSES OF THIS NOTE, SWPPP INCLUDES: 1. ALL EROSION AND SEDIMENT CONTROL PLAN SHEETS AND DETAILS. 2. CONTRACTOR MUST RETAIN A SIGNED AND APPROVED COPY OF THE SWPPP. 3. ALL GRADING PLANS AND EXISTING CONDITIONS AND DEMOLITION PLANS AND STORM SEWER SYSTEMS. 4. ALL EROSION AND SEDIMENT CONTROL PLAN SHEETS AND DETAILS. 5. ASSOCIATED SPECIFICATIONS.

SWPPP OPERATOR: _____ TITLE: _____ DATE: _____

CONTRACTOR CERTIFICATION: I, THE UNDERSIGNED, CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION. I, THE UNDERSIGNED, CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

SWPPP OPERATOR: _____ TITLE: _____ DATE: _____

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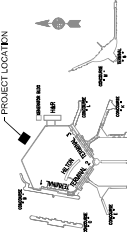
SWPPP OPERATOR: _____ TITLE: _____ DATE: _____

CONTRACTOR CERTIFICATION: I, THE UNDERSIGNED, CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION. I, THE UNDERSIGNED, CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

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- NOTES:**
- CONTRACTOR MUST INSTALL PERIMETER EROSION BARRIER AT ANY LOCATION IN WHICH SHEET FLOWS MAY RESULT IN CONSTRUCTION LIMITS. LOCATIONS TO BE DETERMINED IN THE FIELD BY THE COMMISSIONER. OTHER METHODS MAY BE USED TO CONTROL FLOW OFF-SITE, INCLUDING BUT NOT LIMITED TO, TEMPORARY DIVERSION SWALES, TEMPORARY SEDIMENT TRAPS, SHAPED DITCHES TO CONVEY WATER, ETC.
 - ALL WATERS LEAVING THE SITE MUST BE TREATED FOR SEDIMENT BEFORE BEING RELEASED DOWNSTREAM. UNDER NO CIRCUMSTANCES SHALL SEDIMENT LADEN WATERS BE ALLOWED TO LEAVE THE CONSTRUCTION SITE.
 - EROSION CONTROL AND STABILIZATION MEASURES SHALL FOLLOW THE PROJECT SPECIFICATIONS.
 - ALL DISTURBED SOILS ARE TO BE REPAIRED WITHIN SEVEN (7) DAYS OF CONSTRUCTION ACTIVITY HAVING CEASED IF THE SOIL IS TO REMAIN UNDISTURBED FOR MORE THAN FOURTEEN (14) DAYS.
 - THE COMMISSIONER RESERVES THE RIGHT TO DESIGNATE ANY EXISTING EROSION CONTROL MEASURES TO BE MAINTAINED BY THE CONTRACTOR. THESE MEASURES WILL BE PAID FOR UNDER APPLICABLE CONTRACT LINE ITEMS.
 - THE COMMISSIONER RESERVES THE RIGHT TO DESIGNATE ANY PROPOSED EROSION CONTROL MEASURES TO BE MAINTAINED BY THE CONTRACTOR. THESE MEASURES WILL BE INCIDENTAL TO THE CONTRACT.

APPROVED AS WORKING PLAN
EPA



| REV | DATE | DESCRIPTION |
|--------|----------------|-------------|
| 002119 | ISSUED FOR BID | |

PROJECT NAME:

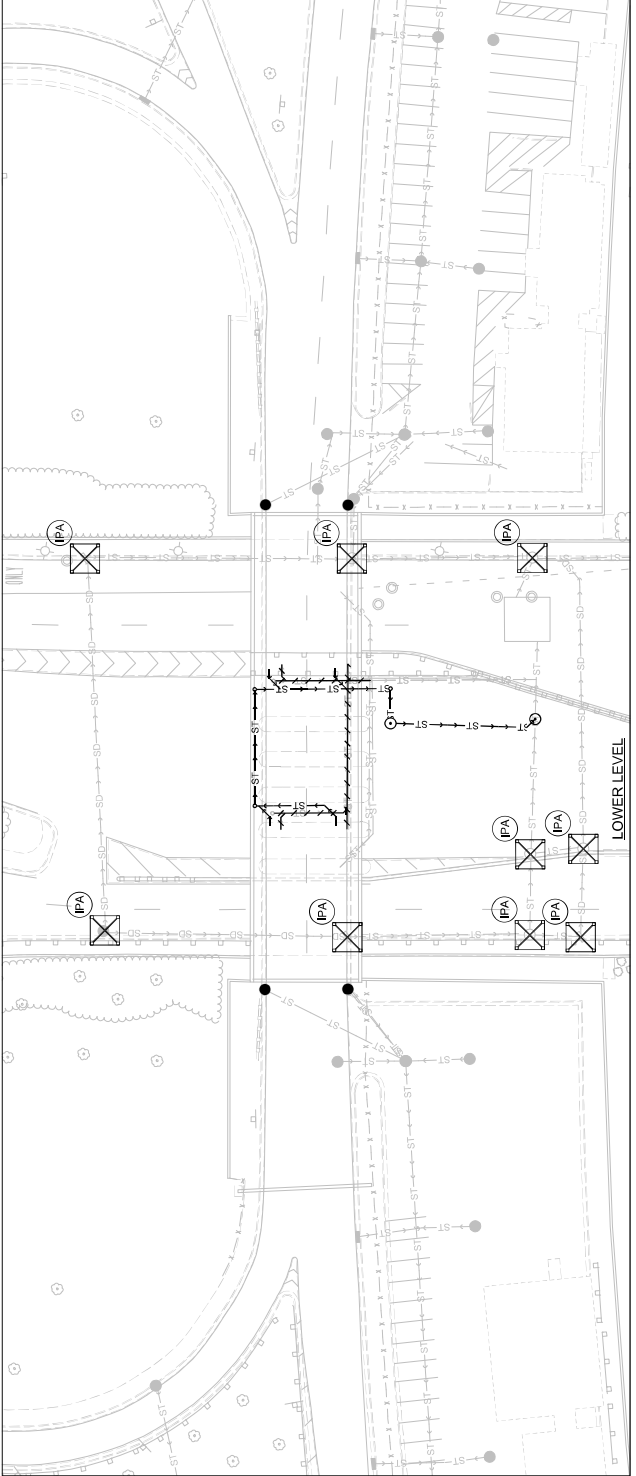
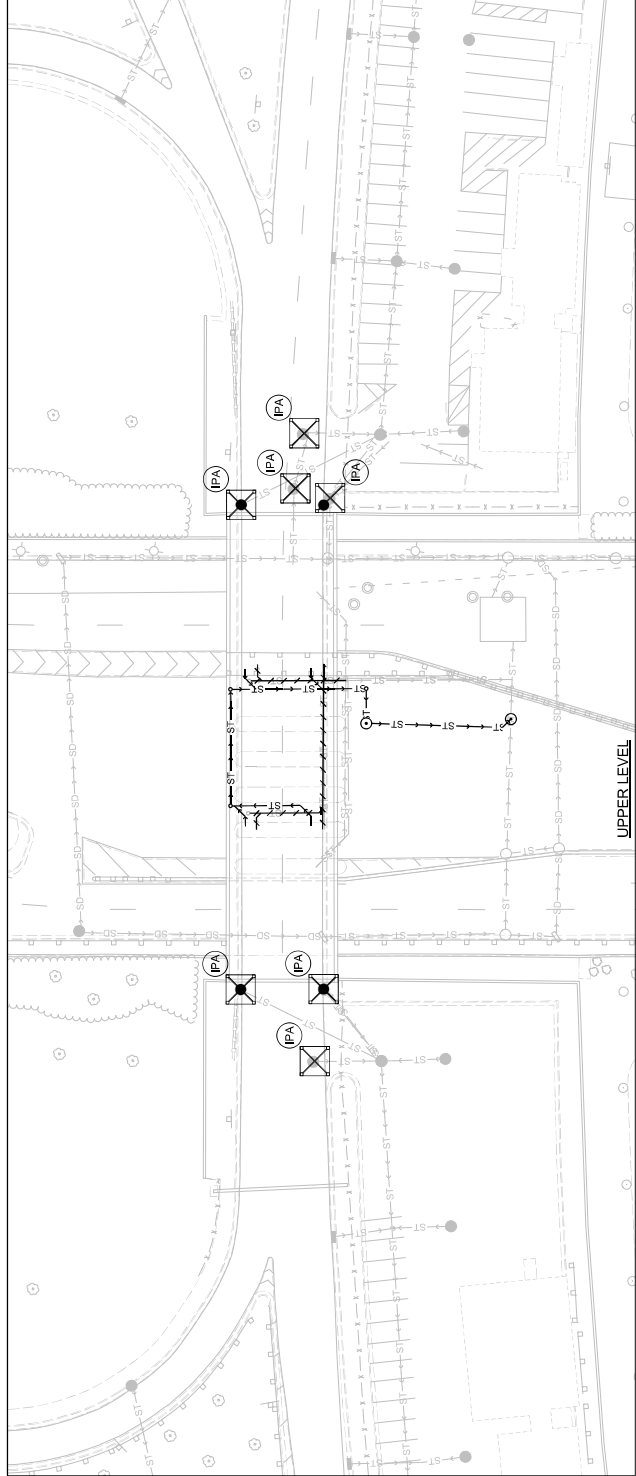
RECYCLICATION
BRIDGE REPLACEMENT

SHEET TITLE:
EROSION AND SEDIMENT
CONTROL PLAN

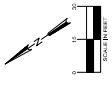
DESIGNED: VI
DRAWN: KH
CHECKED: VI

PROJECT NO.: H3075.15-00
DATE: 02/21/19

SHEET NO. REVISED
C 06 004



LEGEND:
 PROPOSED INLET PROTECTION (IPA)



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INLET PROTECTION - INLET FILTER (ROUND)

INLET PROTECTION - INLET FILTER TYPE 1 (ROUND)

NOTE: THIS FILTER SHALL BE AS MANUFACTURED BY THE MANUFACTURER. THE FILTER SHALL BE AS MANUFACTURED BY THE MANUFACTURER. THE FILTER SHALL BE AS MANUFACTURED BY THE MANUFACTURER.

| | | | | | |
|-------------------|--|------------|----------|-----|---|
| Computer Filename | O'Hare Modernization Program Design and Construction Standards | Issue Date | 01/30/09 | REV | 1 |
| Design No. | | Detail No. | 7-03-00P | | |

STABILIZED CONSTRUCTION ENTRANCE PLAN

SECTION A-A

SECTION B-B

REFERENCE: NCRS L-600

O'Hare Modernization Program Design and Construction Standards

| | | | | | |
|-------------------|--|------------|----------|-----|---|
| Computer Filename | O'Hare Modernization Program Design and Construction Standards | Issue Date | 01/30/09 | REV | 2 |
| Design No. | | Detail No. | 7-03-00P | | |

STABILIZED CONSTRUCTION ENTRANCE PLAN

PLAN VIEW

SIDE ELEVATION

NOTE: 1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Tables 1 or 2, Class 1, 2, or 3 and shall be placed... 2. Rows of impacted concrete shall meet one of the following (DOT course aggregate, CA-1, CA-2, CA-3 or CA-4, and be placed according to the manufacturer's specifications...)

| | | | | | |
|-------------------|--|------------|----------|-----|---|
| Computer Filename | O'Hare Modernization Program Design and Construction Standards | Issue Date | 7-03-02M | REV | 2 |
| Design No. | | Detail No. | | | |

PROJECT LOCATION

APPROVED AS WORKING PLAN

| | | |
|----------|----------------|-------------|
| REV | DATE | DESCRIPTION |
| 02/21/10 | ISSUED FOR BID | |
| | REV. DATE | DESCRIPTION |

PROJECT NAME: _____

BRIDGE REPLACEMENT

SHEET TITLE: **EROSION AND SEDIMENT CONTROL DETAILS**

DESIGNED: VI DRAWN: DR CHECKED: VI

PROJECT NO.: H3074.15-00
 DATE: 02/21/10

SHEET NO.: **C 06 005**

REVISION

DROP INLET INSERT BASKET (SQUARE)

WELD

OPEN AREA

BOTTOM FRAME

BOTTOM FRAME BAR SCHEDULE

| NO. | SHAPE | SIZE | THICKNESS | LENGTH | QUANTITY |
|-----|-------|------|-----------|--------|----------|
| 4 | BAR | 1" | 1/2" | 5' | 4 |

ROD SCHEDULE

| NO. | SHAPE | SIZE | THICKNESS | LENGTH | QUANTITY |
|-----|-------|------|-----------|--------------|----------|
| 5 | ROD | 1/2" | 1/4" | (CUT TO FIT) | 14 |

WELD FOUR CORNER BARS FIRST (EACH 14" LONG)

| | | | | | |
|-------------------|--|------------|----------|-----|---|
| Computer Filename | O'Hare Modernization Program Design and Construction Standards | Issue Date | 01/30/09 | REV | 1 |
| Design No. | | Detail No. | 7-03-00 | | |

DROP INLET INSERT BASKET (SQUARE)

CURB SIDE

HANGER

PLAN

FRONT VIEW

TOP FRAME BAR SCHEDULE

| NO. | SHAPE | SIZE | THICKNESS | LENGTH | QUANTITY |
|-----|-------|------|-----------|--------|----------|
| 1 | ANGLE | 1x1" | 3/8" | a | 1 |
| 2 | ANGLE | 2x2" | 3/8" | b | 2 |
| 3 | BAR | 2" | 3/8" | c | 2 |

LENGTH AS NECESSARY TO FIT AREA STORM SEWER INLET TYPE TO BE PROTECTED.

| | | | | | |
|-------------------|--|------------|----------|-----|---|
| Computer Filename | O'Hare Modernization Program Design and Construction Standards | Issue Date | 01/30/09 | REV | 1 |
| Design No. | | Detail No. | 7-03-00 | | |

DROP INLET INSERT BASKET (SQUARE)

PLAN (WITH FILTER AND GRATE REMOVED)

SIDE VIEW

SECTION A-A

NOTE: 1. FILTER FABRIC SHALL BE MIN. 1/2" EXTRA ALL AROUND FOR HAND HOLD... 2. FILTER FABRIC SHALL BE MIN. 1/2" EXTRA ALL AROUND FOR HAND HOLD.

| | | | | | |
|-------------------|--|------------|----------|-----|---|
| Computer Filename | O'Hare Modernization Program Design and Construction Standards | Issue Date | 01/30/09 | REV | 1 |
| Design No. | | Detail No. | 7-03-00 | | |

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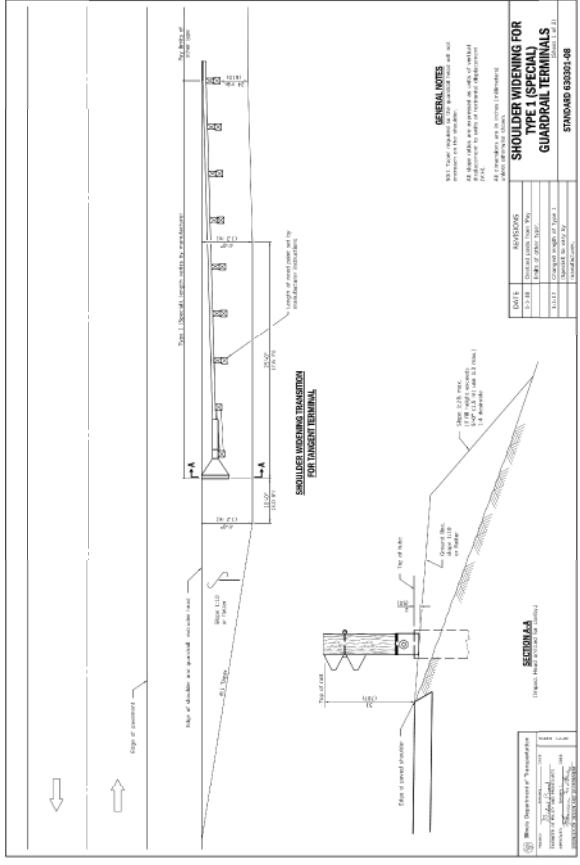
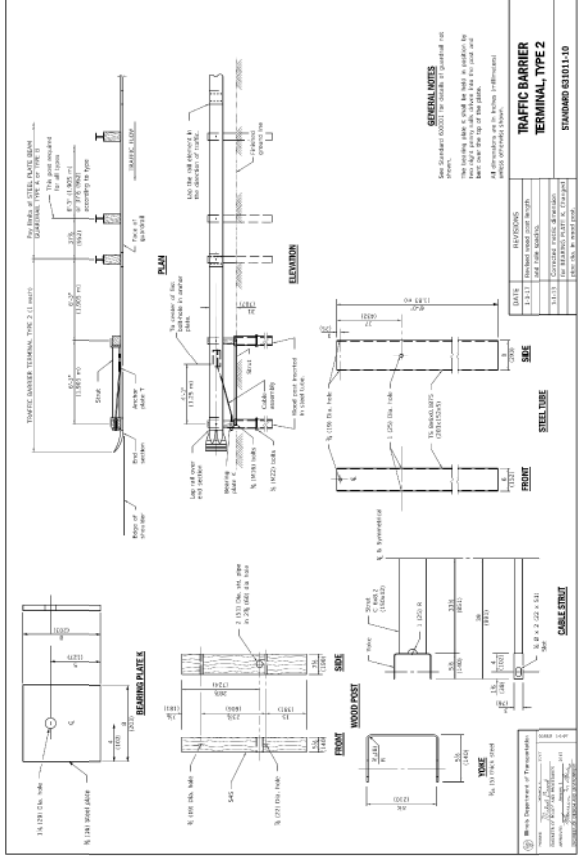
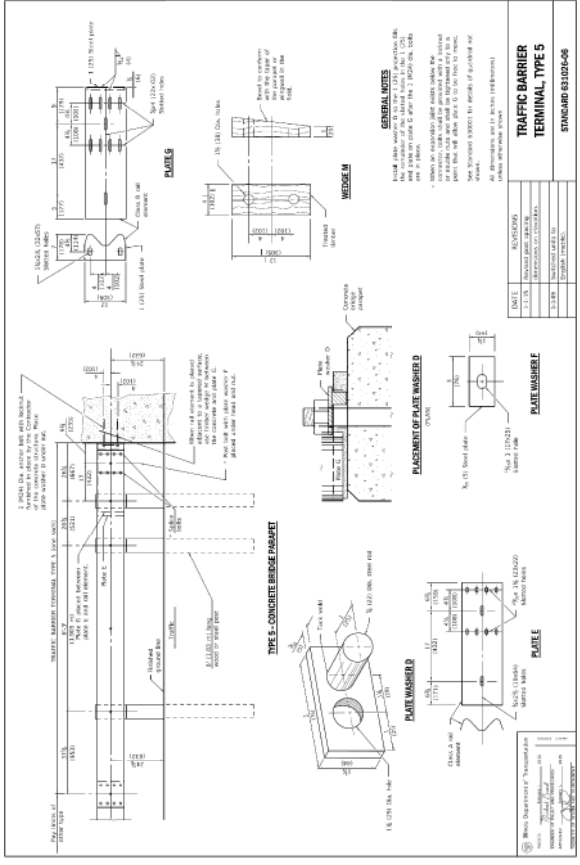
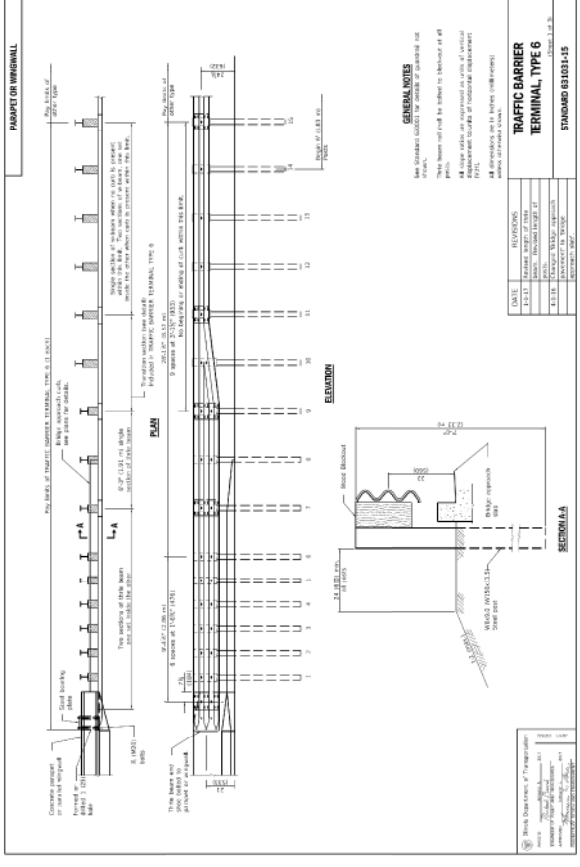
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APPROVED AS WORKING PLAN

| REV | DATE | DESCRIPTION |
|-----------|--------------------|-------------|
| 002/21/10 | ISSUED FOR BIDDING | |

PROJECT NAME:

RECORING
BRIDGE REPLACEMENT

SHEET TITLE:
ROADWAY
DETAILS

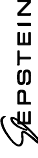
| DESIGNED | DRAWN | CHECKED |
|----------|-------|---------|
| VI | DR | VI |

PROJECT NO.: H3074.15-00
DATE: 02/21/10

| SHEET NO. | REVISION |
|-----------|----------|
| C 07 002 | |



CHICAGO INTERNATIONAL AIRPORT
 CITY OF CHICAGO
 DEPARTMENT OF AVIATION
 JAMIE L. FREE
 CONSULTANT



600 W. FULTON
 CHICAGO, IL 60609
 T. 312.454.9100 E. 312.558.1217

1 2 3 4

REFLECTOR TYPE A
 TRANSMITTANCE 80%

REFLECTOR TYPE B
 TRANSMITTANCE 80%

GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
 STANDARD 72006

| DATE | REVISIONS |
|----------|----------------|
| 12/27/19 | ISSUED FOR BID |
| 02/22/20 | ISSUED FOR BID |
| 03/13/20 | ISSUED FOR BID |
| 03/13/20 | ISSUED FOR BID |
| 03/13/20 | ISSUED FOR BID |
| 03/13/20 | ISSUED FOR BID |
| 03/13/20 | ISSUED FOR BID |

Illinois Department of Transportation
 DIVISION OF TRANSPORTATION
 PROJECT NO. 19-010
 SHEET NO. 101
 CONTRACT NO. 19-010
 PROJECT TITLE: RECONSTRUCTION OF BRIDGE OVER I-55 AT I-55 AND I-55/US 41

5 6 7 8

OBJECT MARKER DETAILS
 STANDARD 72501-01

| DATE | REVISIONS |
|----------|----------------|
| 12/27/19 | ISSUED FOR BID |
| 02/22/20 | ISSUED FOR BID |
| 03/13/20 | ISSUED FOR BID |
| 03/13/20 | ISSUED FOR BID |
| 03/13/20 | ISSUED FOR BID |
| 03/13/20 | ISSUED FOR BID |
| 03/13/20 | ISSUED FOR BID |

GENERAL NOTES
 See AASHTO M 293 for details of construction.
 ALL DIMENSIONS IN INCHES.

OBJECT APPLIED
 USE OBJECT MARKER TYPE 1 ON ALL BRIDGE APPROACHES AND ON ALL BRIDGE ENDS.
 USE OBJECT MARKER TYPE 2 ON ALL BRIDGE ENDS.
 USE OBJECT MARKER TYPE 3 ON ALL BRIDGE ENDS.

Illinois Department of Transportation
 DIVISION OF TRANSPORTATION
 PROJECT NO. 19-010
 SHEET NO. 101
 CONTRACT NO. 19-010
 PROJECT TITLE: RECONSTRUCTION OF BRIDGE OVER I-55 AT I-55 AND I-55/US 41

1 2 3 4

GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
 STANDARD 72006

Illinois Department of Transportation
 DIVISION OF TRANSPORTATION
 PROJECT NO. 19-010
 SHEET NO. 101
 CONTRACT NO. 19-010
 PROJECT TITLE: RECONSTRUCTION OF BRIDGE OVER I-55 AT I-55 AND I-55/US 41

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GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
 STANDARD 72006

Illinois Department of Transportation
 DIVISION OF TRANSPORTATION
 PROJECT NO. 19-010
 SHEET NO. 101
 CONTRACT NO. 19-010
 PROJECT TITLE: RECONSTRUCTION OF BRIDGE OVER I-55 AT I-55 AND I-55/US 41

APPROVED AS WORKING PLAN
 DATE: _____

PROJECT NO.: H3073.15-00
 DATE: 02/21/19
 SHEET NO.: C 07 003

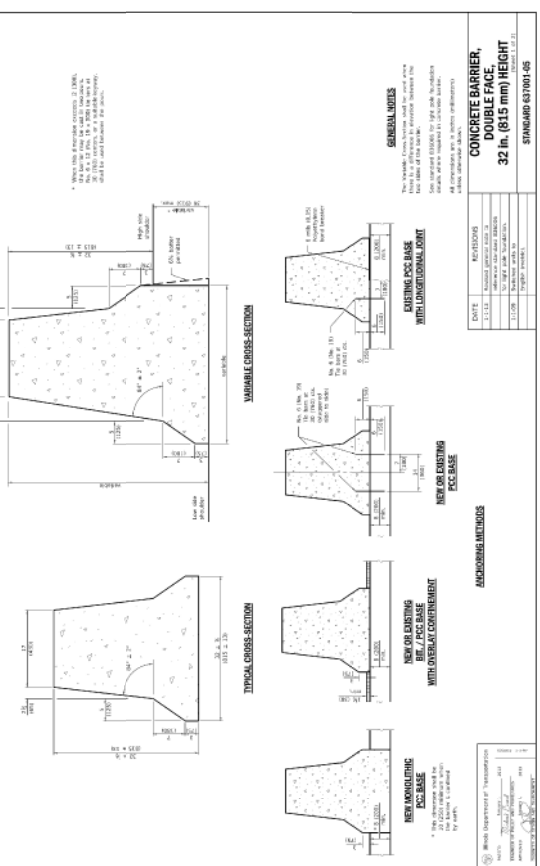
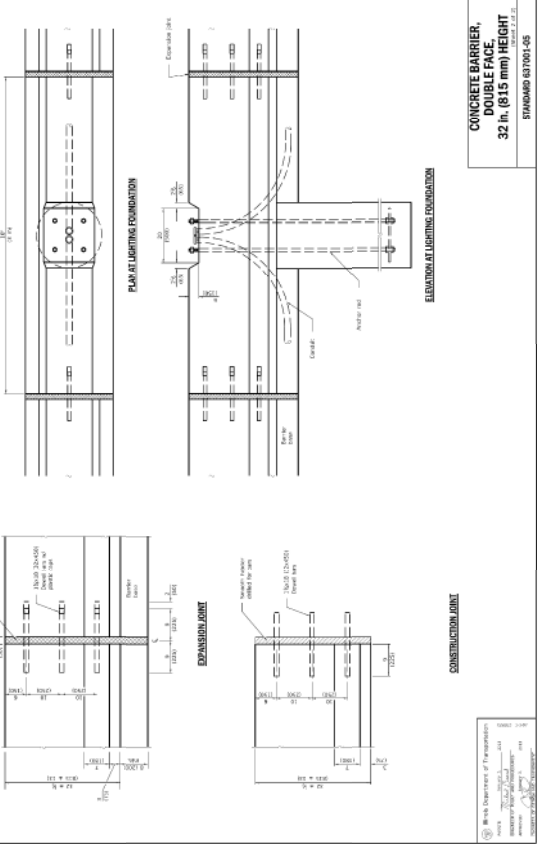
DESIGNED: VI
 DRAWN: DR
 CHECKED: VI

PROJECT NAME: RECIRCULATION BRIDGE REPLACEMENT

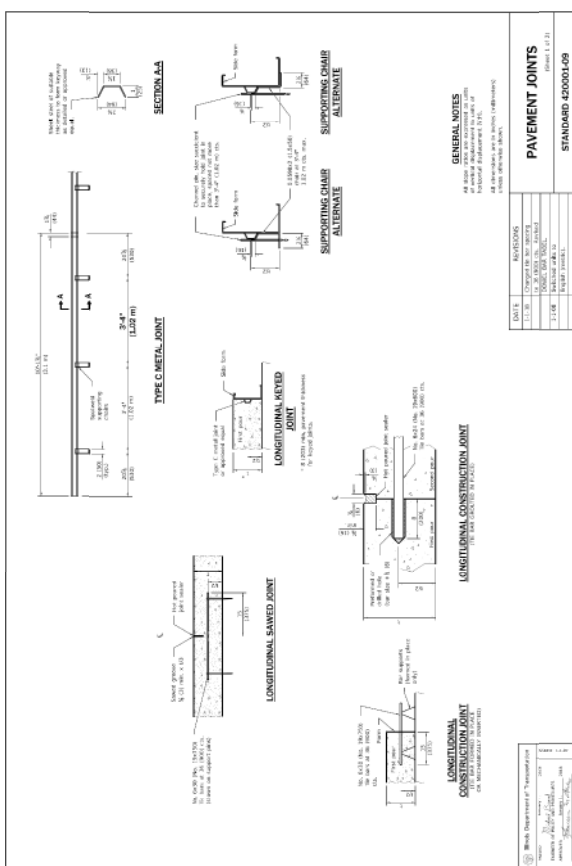
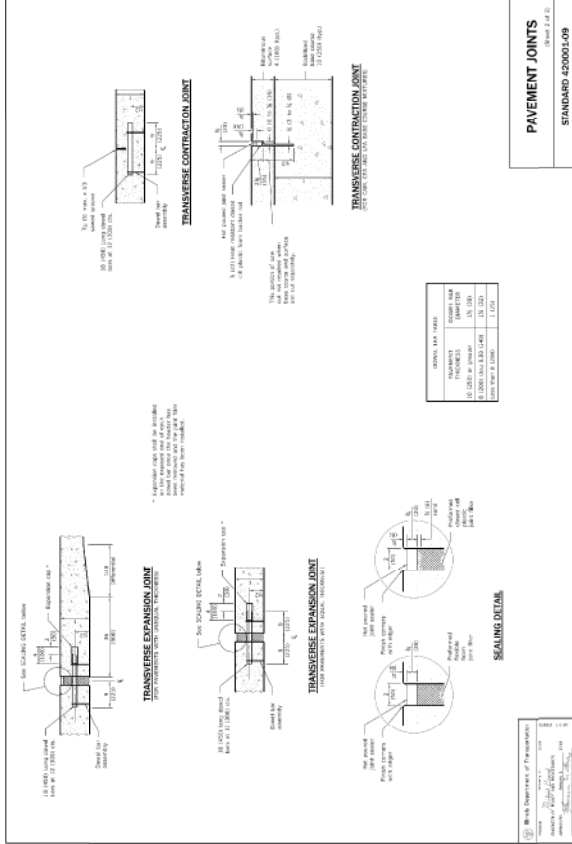
SHEET TITLE: ROADWAY DETAILS

REVISION

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APPROVED AS WORKING PLAN

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| REV. | DATE | DESCRIPTION |
| 0022119 | ISSUED FOR BID | |
| | REV. DATE | DESCRIPTION |
| PROJECT NAME: | | |

REINFORCEMENT
BRIDGE REPLACEMENT

SHEET TITLE:
ROADWAY
DETAILS

DESIGNED: VI
DRAWN: DR
CHECKED: VI

PROJECT NO.: H3074.15-00
DATE: 02/21/19

SHEET NO.
C 07 004
REVISION

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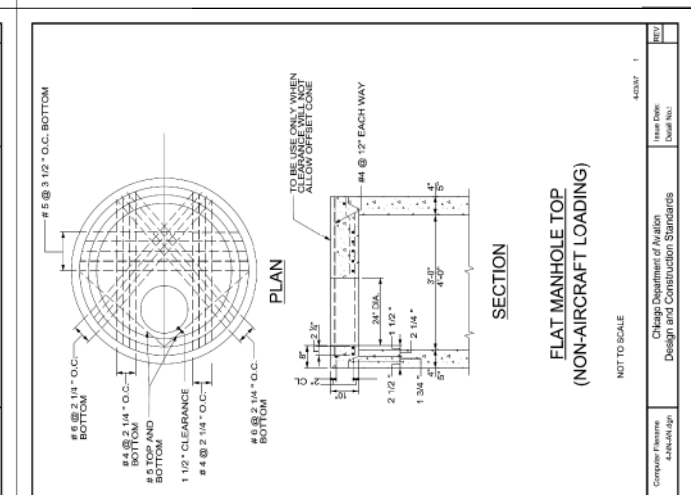
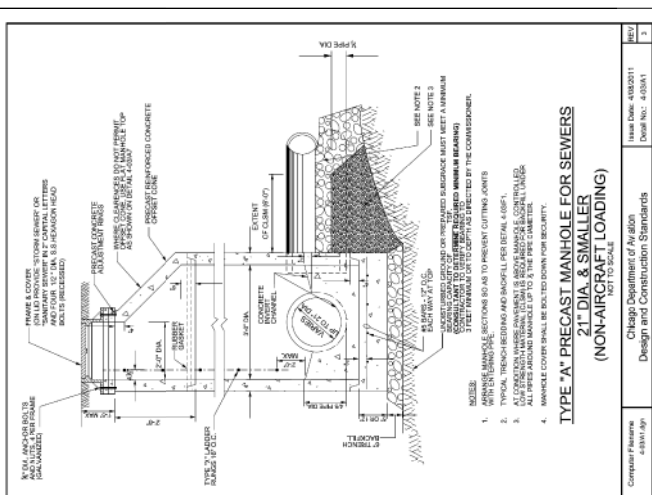
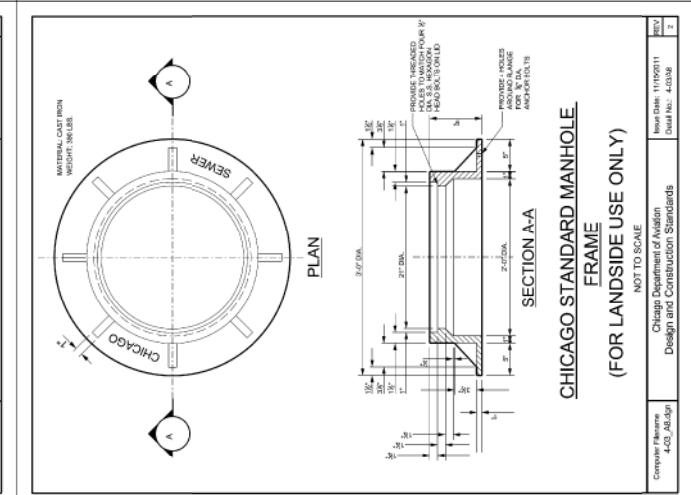
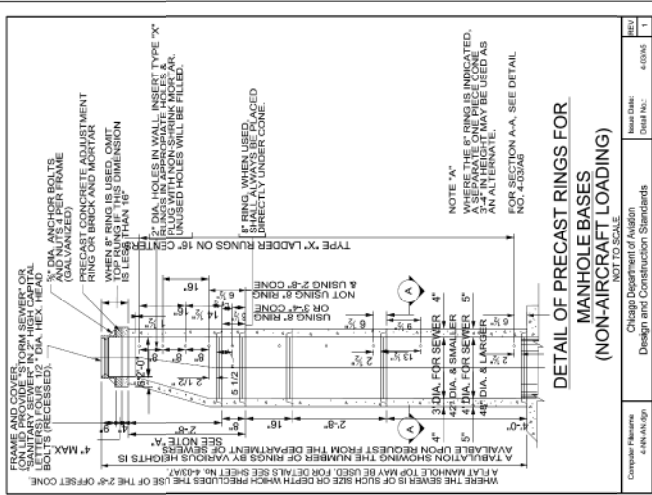
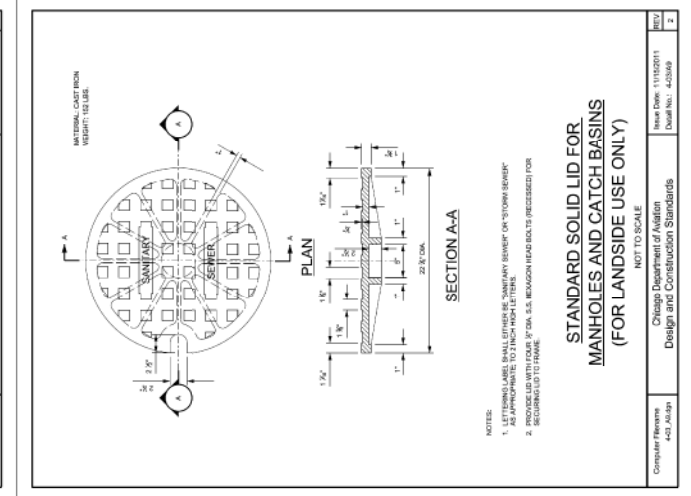
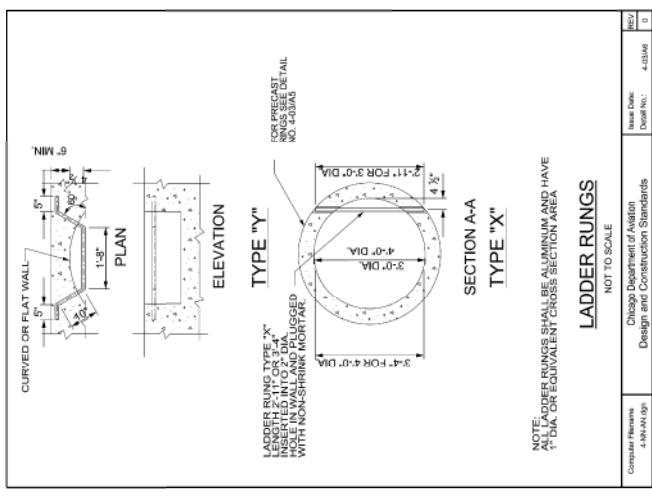
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| USAGRI'S FABRICATION | | TABLE OF GRAVATIONS | | TRENCH BACKFILL | |
|----------------------|---------|---------------------|---------|-----------------|----------|
| SIZE | CA-7 | CA-11 | CA-18 | CA-18 | FA-8 |
| 3" | 100 | | | | |
| 2 1/2" | 95 ± 5 | | | | |
| 2" | 60 ± 15 | | | | |
| 1 1/2" | 15 ± 15 | 100 | | | |
| 1" | 3 ± 3 | 95 ± 5 | 100 | | |
| 3/4" | | 45 ± 15 | 92 ± 8 | | |
| 1/2" | | | 45 ± 15 | 100 | |
| 3/8" | | | | 97 ± 3 | |
| No. 4 | | 5 ± 5 | 9 ± 8 | 20 ± 15 | 94 ± 100 |
| No. 10 | | | | | |
| No. 15 | | | | | |
| No. 50 | | | | | 3 ± 3 |
| No. 100 | | | | | 0 ± 10 |
| No. 200 | | | | | 0 ± 12 |

BEDDING FOR PIPES AND SUBDRAINS
NOT TO SCALE

Chicago Department of Aviation
Design and Construction Standards

Computer Reference: 4-IN-AN-57P
Issue Date: 4/20/11
Detail No.: 4-0381 2

CONNECTION INTO SEWER
NOT TO SCALE

Chicago Department of Aviation
Design and Construction Standards

Computer Reference: 4-IN-AN-57P
Issue Date: 4/20/11
Detail No.: 4-0381 1

CONNECTION INTO R.C.P. SEWER
NOT TO SCALE

Chicago Department of Aviation
Design and Construction Standards

Computer Reference: 4-IN-AN-57P
Issue Date: 4/20/11
Detail No.: 4-0381 1

PERFORATED LID FOR MANHOLES AND CATCH BASINS (FOR LANDSIDE USE ONLY)
NOT TO SCALE

Chicago Department of Aviation
Design and Construction Standards

Computer Reference: 4-IN-AN-57P
Issue Date: 11/10/11
Detail No.: 4-0381 3

CATCH BASIN (NON-AIRCRAFT LOADING)
NOT TO SCALE

Chicago Department of Aviation
Design and Construction Standards

Computer Reference: 4-IN-AN-57P
Issue Date: 6/6/07
Detail No.: 4-0381 3

INSPECTION HOLE
NOT TO SCALE

Chicago Department of Aviation
Design and Construction Standards

Computer Reference: 4-IN-AN-57P
Issue Date: 9/19/07
Detail No.: 4-0381 2

H G F E D C B A

H G F E D C B A



CHICAGO INTERNATIONAL AIRPORT
CITY OF CHICAGO
DEPARTMENT OF AVIATION
RICHARD J. ROY
MAYOR

JAMIE L. FREE
CONSULTANT

PEPSTEIN

600 W. FULTON
CHICAGO, IL 60607
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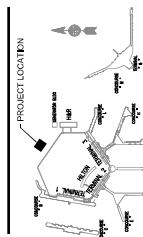
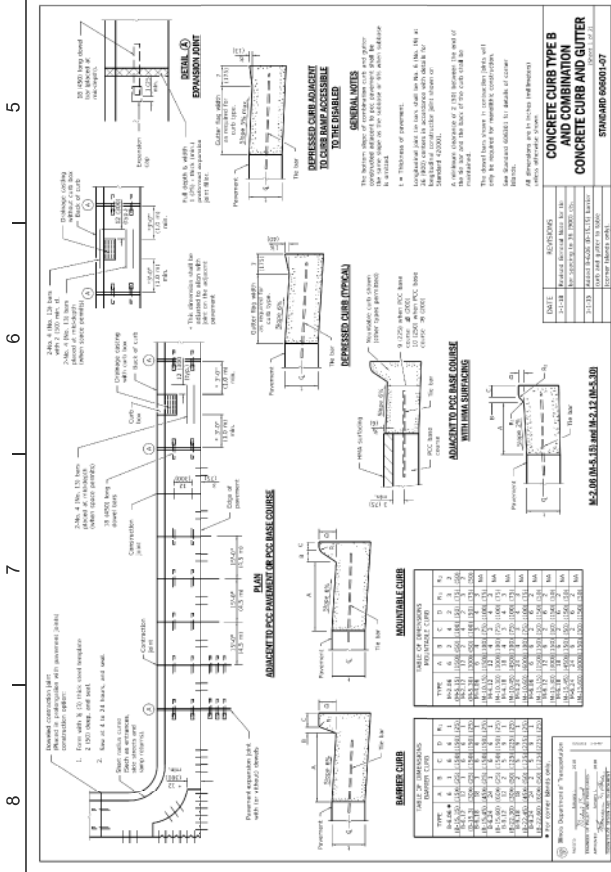
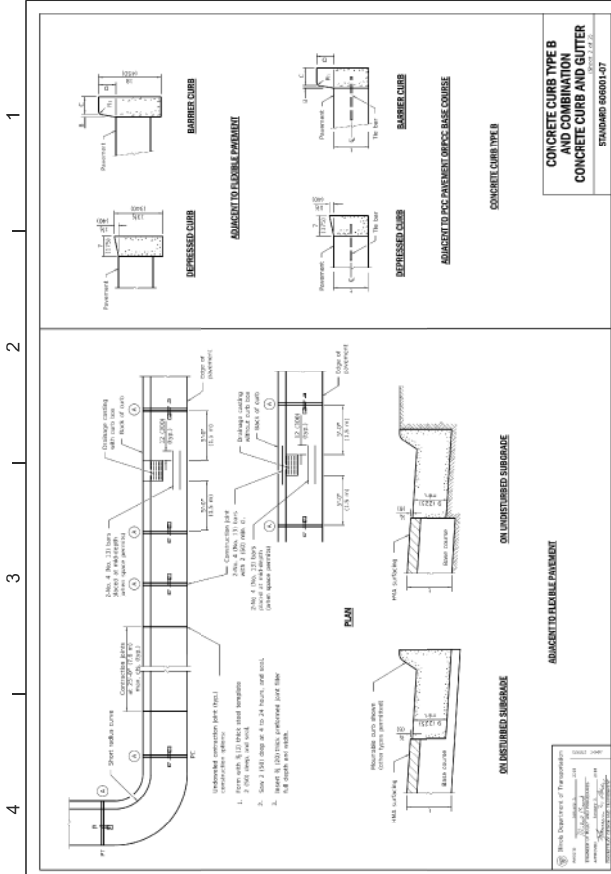
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APPROVED AS WORKING PLAN

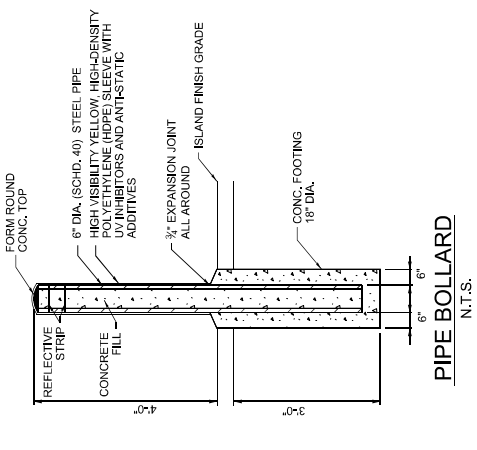
| REV | DATE | DESCRIPTION |
|----------|----------------|-------------|
| 02/21/19 | ISSUED FOR BID | |

PROJECT NAME:

REINFORCEMENT
BRIDGE REPLACEMENT

SHEET TITLE:
DETAILS

DESIGNED: VI
DRAWN: DR
CHECKED: VI
PROJECT NO.: H3073.15-00
DATE: 02/21/19
SHEET NO.: C 07 007
REVISION:



NOTES:
1. PIPE BOLLARDS SHALL BE SPACED AS SHOWN ON PLAN VIEW.

DESIGN SPECIFICATIONS

EXISTING CONSTRUCTION:
AASHTO Standard Specifications for Highway Bridges, 17th Edition, 2002

PROPOSED CONSTRUCTION:
2017 AASHTO LRFD Bridge Design Specifications, 8th Edition
2012 IDOT Bridge Manual

DESIGN STRESSES

FIELD UNITS (EXIST. CONST.)
fc = 3,500 psi
fy = 60,000 psi (Reinforcement)

FIELD UNITS (PROP. CONST.)
fc = 3,500 psi (Substructure)
fc = 4,000 psi (Superstructure)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (A270 Grade 50)

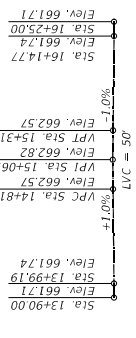
LOADING

EXISTING CONSTRUCTION:
HS20-S16-44 per AASHTO 1957

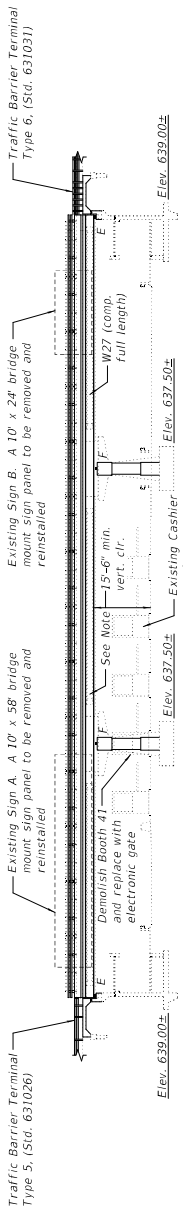
PROPOSED CONSTRUCTION:
HL-93, Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at sec. (SDS) = 0.085
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.149
Soil Site Class = D

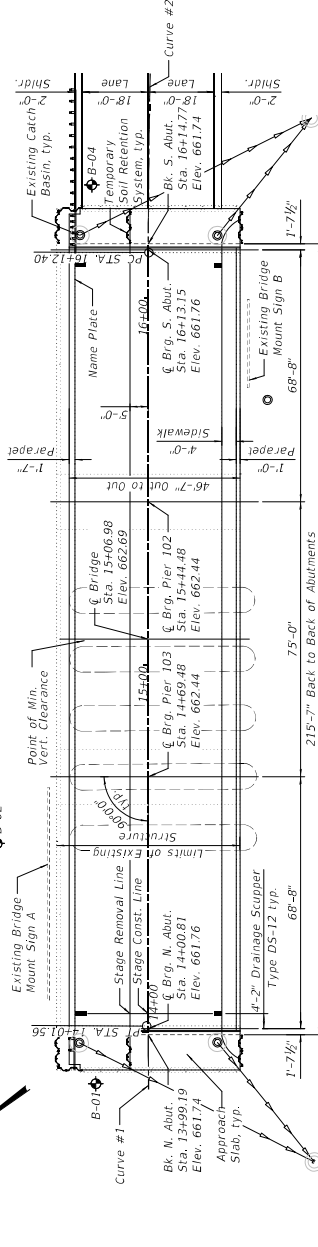


PROFILE GRADE
LVC = 50'



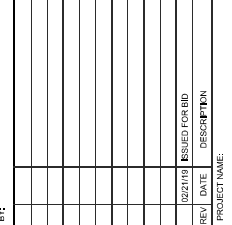
ELEVATION

Note: Bridge lighting, conduit and parking booth collection system to show clearly. Existing temporary shoring towers not shown for clarity.



PLAN

LEGEND:
◆ Soil Boring Location



REV. DATE DESCRIPTION

| | |
|----------|----------------|
| 10/21/19 | ISSUED FOR BID |
|----------|----------------|

PROJECT NAME:
REV. DATE DESCRIPTION

REVISION

S01 001

RECIRCULATION AND ELEVATION

DESIGNED: CMS
DRAWN: TCG
CHECKED: TCG

PROJECT NO.: HS073.15-00
DATE: 02/21/19

Benchmark: Chiseled "D" on top of parapet at SW corner of S.N. 016-6595, Elev. 663.95

Existing Structure: S.N. 016-6595, originally built in 1961, consists of 3 simple span prestressed concrete beams supported by closed wall abutments and multi-column piers on spread footings underwent a total deck replacement in 1998. The Bk. to Bk. abutment measures 215'-7" and the out-to-out deck is 49'-11 1/2". Abutments and pier footings to remain. Traffic to be maintained utilizing staged construction.

Salvage: Existing shoring towers adjacent to Piers 102 & 103 to be returned to CDA. Coordinate with Commissioner.

Existing Sign A. A 10' x 58' bridge mount sign panel to be removed and reinstalled

Existing Sign B. A 10' x 24' bridge mount sign panel to be removed and reinstalled

Demolish Booth #1 and replace with electronic gate

See Note: 15'-6" min. vert. clr.

Existing Cashier Booths, typ.

W27 (comp. full length)

Point of Min. Vert. Clearance

Existing Bridge Mount Sign A

Stage Removal Line

Stage Const. Line

Limits on Existing Structure

Existing Bridge Mount Sign B

4"-2" Drainage Scupper Type DS-12 typ.

68'-8"

1'-7 1/2"

215'-7" Back to Back of Abutments

75'-0"

46'-7" Out to Out

4'-0" Parapet

1'-0" Parapet

5'-0" Sidewalk

18'-0" Lane

18'-0" Lane

Existing Catch Basin, typ.

Existing Soil Retention System, typ.

B-04

Name Plate

PC STA. 14+24.0

15+00.0

Curse #1

Bk. N. Abut. Sta. 12+99.19 Elev. 661.74

Approach Slab, typ.

Bk. S. Abut. Sta. 16+13.15 Elev. 661.74

Curve #2

Bk. N. Abut. Sta. 15+44.48 Elev. 662.44

Bk. S. Abut. Sta. 16+17.75 Elev. 661.74

Bk. N. Pier 102 Sta. 15+44.48 Elev. 662.44

Existing Bridge Mount Sign B

68'-8"

1'-7 1/2"

215'-7" Back to Back of Abutments

75'-0"

46'-7" Out to Out

4'-0" Parapet

1'-0" Parapet

5'-0" Sidewalk

18'-0" Lane

18'-0" Lane

Existing Catch Basin, typ.

Existing Soil Retention System, typ.

B-03

Name Plate

PC STA. 14+24.0

15+00.0

Curse #1

Bk. N. Abut. Sta. 12+99.19 Elev. 661.74

Approach Slab, typ.

Bk. S. Abut. Sta. 16+13.15 Elev. 661.74

Curve #2

Bk. N. Pier 102 Sta. 15+44.48 Elev. 662.44

Existing Bridge Mount Sign B

68'-8"

1'-7 1/2"

215'-7" Back to Back of Abutments

75'-0"

46'-7" Out to Out

4'-0" Parapet

1'-0" Parapet

5'-0" Sidewalk

18'-0" Lane

18'-0" Lane

Existing Catch Basin, typ.

Existing Soil Retention System, typ.

B-04

Name Plate

PC STA. 14+24.0

15+00.0

Curse #1

Bk. N. Abut. Sta. 12+99.19 Elev. 661.74

Approach Slab, typ.

Bk. S. Abut. Sta. 16+13.15 Elev. 661.74

Curve #2

Bk. N. Pier 102 Sta. 15+44.48 Elev. 662.44

Existing Bridge Mount Sign B

68'-8"

1'-7 1/2"

215'-7" Back to Back of Abutments

75'-0"

46'-7" Out to Out

4'-0" Parapet

1'-0" Parapet

5'-0" Sidewalk

18'-0" Lane

18'-0" Lane

Existing Catch Basin, typ.

Existing Soil Retention System, typ.

B-03

Name Plate

PC STA. 14+24.0

15+00.0

Curse #1

Bk. N. Abut. Sta. 12+99.19 Elev. 661.74

Approach Slab, typ.

Bk. S. Abut. Sta. 16+13.15 Elev. 661.74

Curve #2

Bk. N. Pier 102 Sta. 15+44.48 Elev. 662.44

Existing Bridge Mount Sign B

68'-8"

1'-7 1/2"

215'-7" Back to Back of Abutments

75'-0"

46'-7" Out to Out

4'-0" Parapet

1'-0" Parapet

5'-0" Sidewalk

18'-0" Lane

18'-0" Lane

Existing Catch Basin, typ.

Existing Soil Retention System, typ.

B-04

Name Plate

PC STA. 14+24.0

15+00.0

Curse #1

Bk. N. Abut. Sta. 12+99.19 Elev. 661.74

Approach Slab, typ.

Bk. S. Abut. Sta. 16+13.15 Elev. 661.74

Curve #2

Bk. N. Pier 102 Sta. 15+44.48 Elev. 662.44

Existing Bridge Mount Sign B

68'-8"

1'-7 1/2"

215'-7" Back to Back of Abutments

75'-0"

46'-7" Out to Out

4'-0" Parapet

1'-0" Parapet

5'-0" Sidewalk

18'-0" Lane

18'-0" Lane

Existing Catch Basin, typ.

Existing Soil Retention System, typ.

B-03

Name Plate

PC STA. 14+24.0

15+00.0

Curse #1

Bk. N. Abut. Sta. 12+99.19 Elev. 661.74

Approach Slab, typ.

Bk. S. Abut. Sta. 16+13.15 Elev. 661.74

Curve #2

Bk. N. Pier 102 Sta. 15+44.48 Elev. 662.44

Existing Bridge Mount Sign B

68'-8"

1'-7 1/2"

215'-7" Back to Back of Abutments

75'-0"

46'-7" Out to Out

4'-0" Parapet

1'-0" Parapet

5'-0" Sidewalk

18'-0" Lane

18'-0" Lane

Existing Catch Basin, typ.

Existing Soil Retention System, typ.

B-04

Name Plate

PC STA. 14+24.0

15+00.0

Curse #1

Bk. N. Abut. Sta. 12+99.19 Elev. 661.74

Approach Slab, typ.

Bk. S. Abut. Sta. 16+13.15 Elev. 661.74

Curve #2

Bk. N. Pier 102 Sta. 15+44.48 Elev. 662.44

Existing Bridge Mount Sign B

68'-8"

1'-7 1/2"

215'-7" Back to Back of Abutments

75'-0"

46'-7" Out to Out

4'-0" Parapet

1'-0" Parapet

5'-0" Sidewalk

18'-0" Lane

18'-0" Lane

Existing Catch Basin, typ.

Existing Soil Retention System, typ.

B-03

Name Plate

PC STA. 14+24.0

15+00.0

Curse #1

Bk. N. Abut. Sta. 12+99.19 Elev. 661.74

Approach Slab, typ.

Bk. S. Abut. Sta. 16+13.15 Elev. 661.74

Curve #2

Bk. N. Pier 102 Sta. 15+44.48 Elev. 662.44

Existing Bridge Mount Sign B

68'-8"

1'-7 1/2"

215'-7" Back to Back of Abutments

75'-0"

46'-7" Out to Out

4'-0" Parapet

1'-0" Parapet

5'-0" Sidewalk

18'-0" Lane

18'-0" Lane

Existing Catch Basin, typ.

Existing Soil Retention System, typ.

B-04

Name Plate

PC STA. 14+24.0

15+00.0

H

G

F

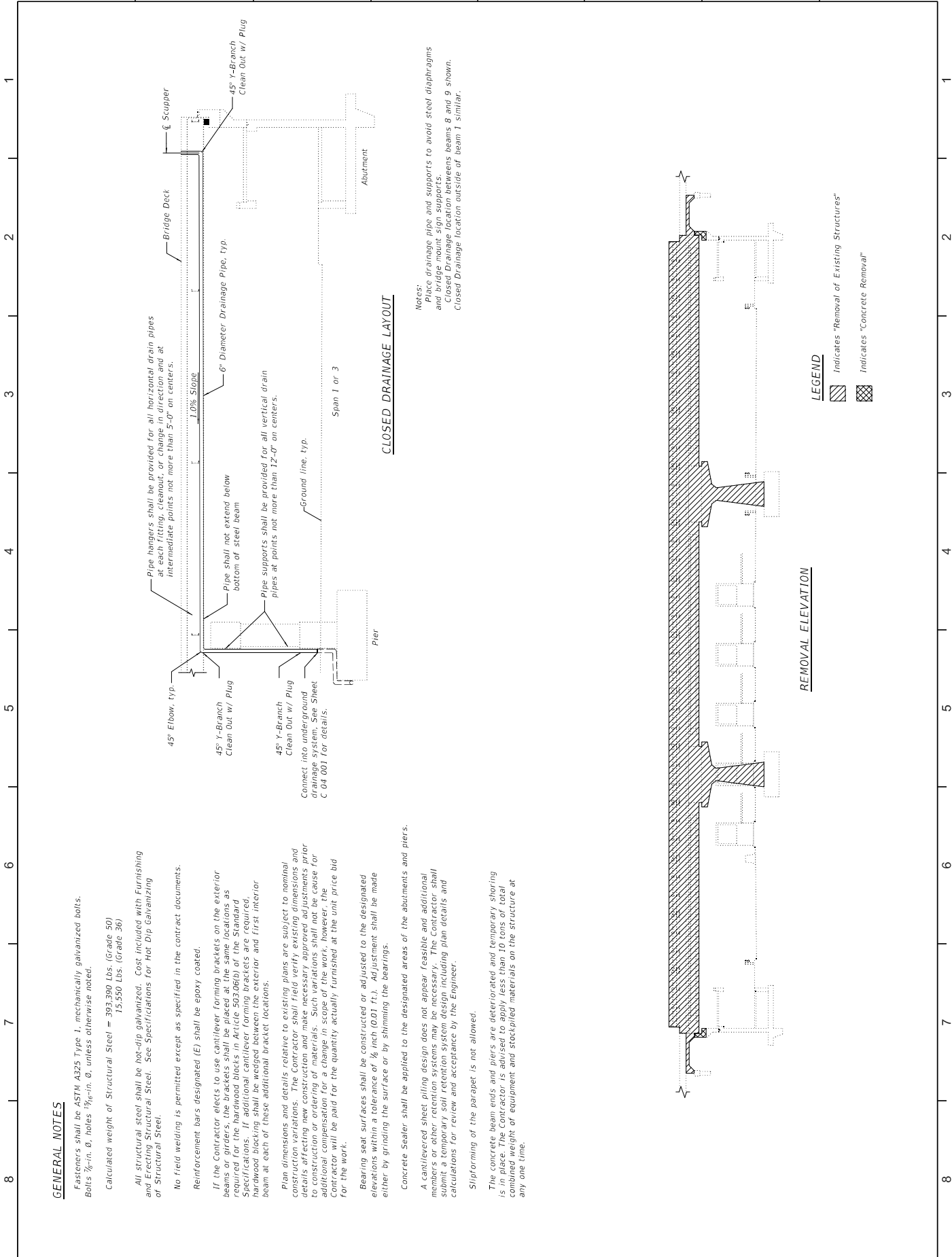
E

D

C

B

A



GENERAL NOTES

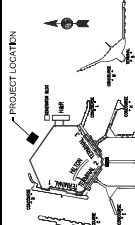
- Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 3/8-in. Ø, holes 5/8-in. Ø, unless otherwise noted.
- Calculated weight of Structural Steel = 393,300 Lbs. (Grade 50) 15,550 Lbs. (Grade 36)
- All structural steel shall be hot-dip galvanized. Cost included with Furnishing and Erecting Structural Steel. See Specifications for Hot Dip Galvanizing of Structural Steel.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and conditions in the field and submit a written report to the Engineer prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Concrete Sealer shall be applied to the designated areas of the abutments and piers.
- A cantilevered sheet piling design does not appear feasible and additional means shall be provided for the contractor. The contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
- Slipforming of the parapet is not allowed.
- The concrete beam ends and piers are deteriorated and temporary shoring is in place. The Contractor is advised to apply less than 10 tons of total combined weight of equipment and stockpiled materials on the structure at any one time.

CLOSED DRAINAGE LAYOUT

Notes:
Place drainage pipe and supports to avoid steel diaphragms and bridge mount sign supports.
Closed Drainage location between beams 8 and 9 shown.
Closed Drainage location outside of beam 1 similar.

REMOVAL ELEVATION

LEGEND
 Indicates "Removal of Existing Structures"
 Indicates "Concrete Removal"



APPROVED AS WORKING PLAN

| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME:
 REVISION:

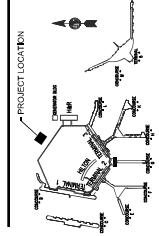
REVISION
BRIDGE REPLACEMENT

SHEET TITLE:
GENERAL DATA

DESIGNED: TCG
DRAWN: TCG
CHECKED: TCG

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO.
S 01 002
REVISION



APPROVED AS WORKING PLAN
BY: _____

| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME: _____

REIRCULATION
BRIDGE REPLACEMENT

SHEET TITLE:
**STAGE CONSTRUCTION
DETAILS**

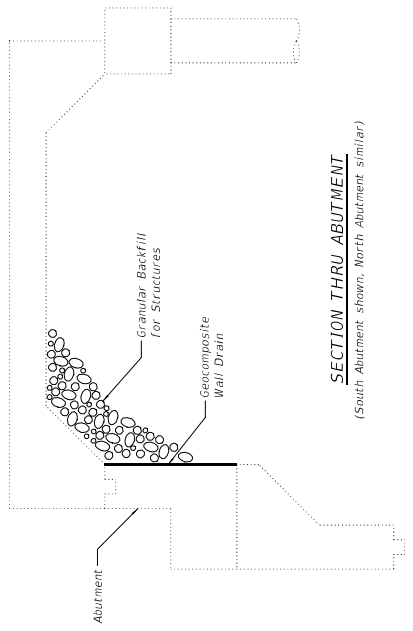
DESIGNED: TCG
DRAWN: TCG
CHECKED: TCG

PROJECT NO.: H3075.19-00
DATE: 02/21/19

SHEET NO. **S 01 003**
REVISION

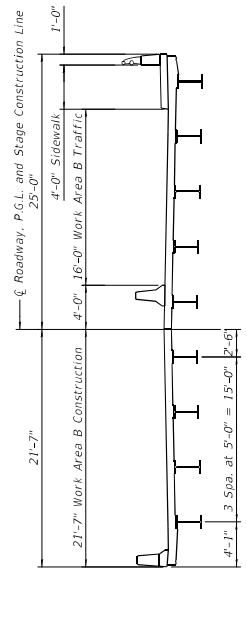
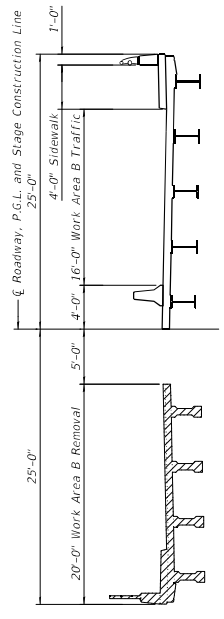
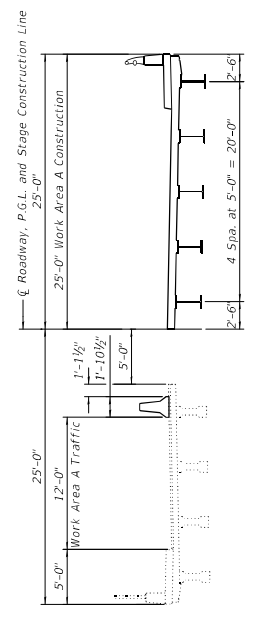
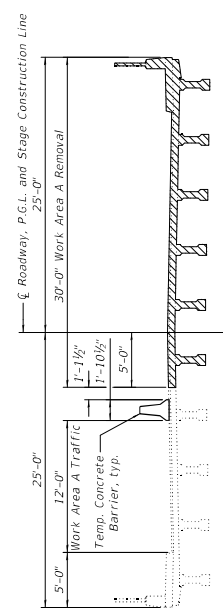


TEMPORARY SOIL RETENTION SYSTEM
(South Abutment shown, North Abutment similar)



SECTION THRU ABUTMENT
(South Abutment shown, North Abutment similar)

Notes:
All stage cross sections are looking north.
See sheet S 01 004 for "Temporary Concrete Barrier".
Hatched area indicates "Removal of Existing Structures".
See Roadway Plans for quantity of Temporary Concrete Barrier.



H

G

F

E

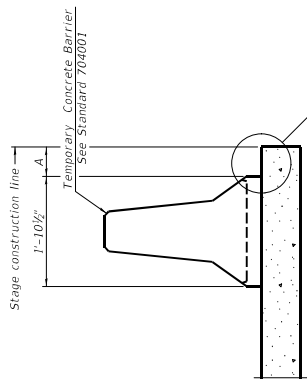
D

C

B

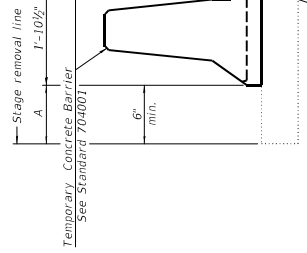
A

1 2 3 4 5 6 7 8



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

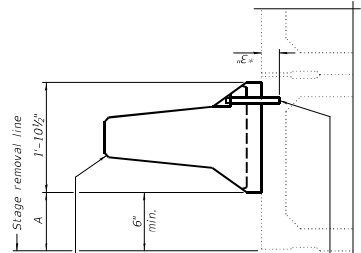
NEW SLAB OR NEW DECK BEAM



Drill 3-1/2" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cast in place with existing concrete. No restraint is required when "A" is greater than 3'-1".

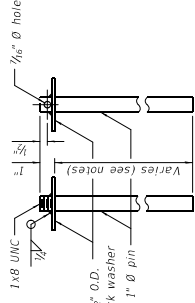
EXISTING SLAB

SECTIONS THRU SLAB OR DECK BEAM



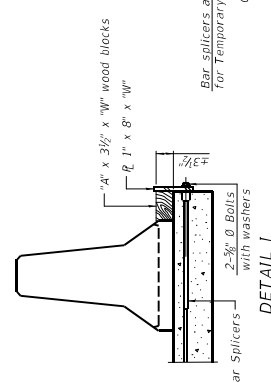
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

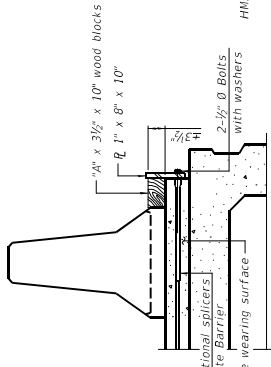


US Std. 1 1/8" I.D. x 2 1/2" O.D.
x approx. 8 gauge thick washer
1" Ø pin

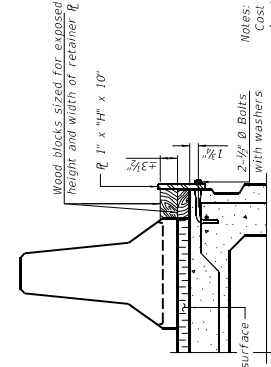
RESTRAINING PIN



DETAIL I



DETAIL II



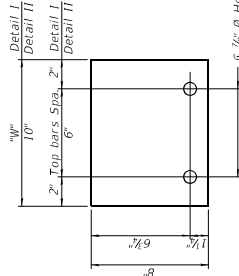
DETAIL III

Notes:
Cost of retainer assembly is included with Temporary Concrete Barrier.
Retainer assembly shall be located at the approximate $\frac{1}{4}$ of each temporary concrete barrier.
The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
When the "A" dimension is less than 1 1/2", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required "A" distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

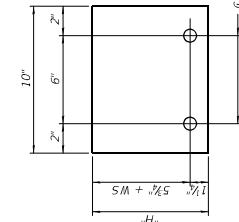
Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial concrete wearing surface. The barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.



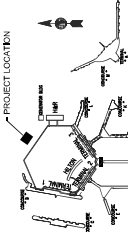
STEEL RETAINER 1" x 8" x 1/4"

(Detail I and II)



STEEL RETAINER 1" x "H" x 10"

(Detail III)



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| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 10/21/19 | | ISSUED FOR BID |

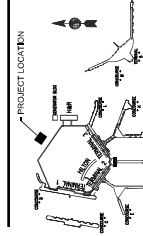
**REINFORCEMENT
BRIDGE REPLACEMENT**

SHEET TITLE:
TEMPORARY CONCRETE BARRIER

PROJECT NO.: H3073.15-00
DATE: 02/21/19

CHECKED: TOG
DRAWN: TOG

SHEET NO. S 01 004
REVISION



APPROVED AS WORKING PLAN
BFL

| REV | DATE | DESCRIPTION |
|----------|----------------|---------------|
| 10/21/10 | ISSUED FOR BID | |
| | | PROJECT NAME: |

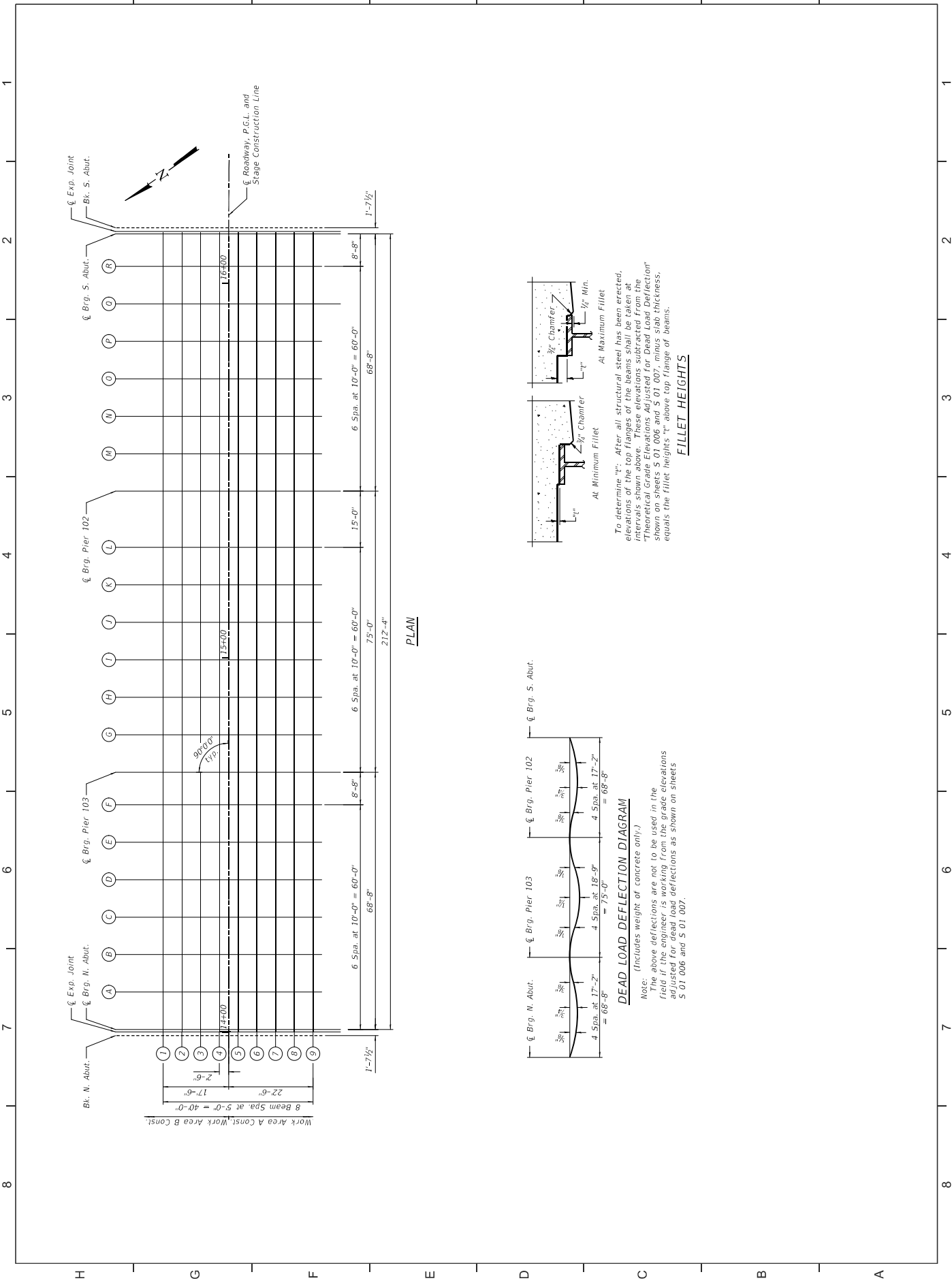
RECIRCULATION
BRIDGE REPLACEMENT

SHEET TITLE:
TOP OF SLAB
ELEVATIONS 1

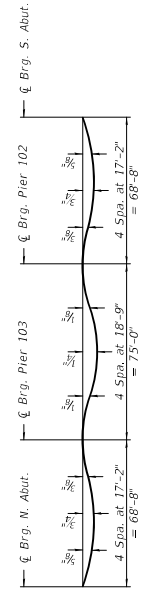
DESIGNED: TCG
DRAWN: TCG
CHECKED: CMS

PROJECT NO.: H3073.15-00
DATE: 02/21/19

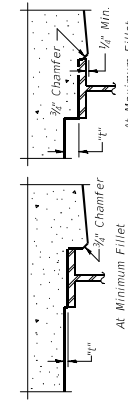
SHEET NO. S 01 005
REVISION



PLAN



Note:
(Includes weights of concrete only)
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets S 01 006 and S 01 007.



To determine "t", after all structural steel has been erected, elevations of top flanges of the beams should be taken from the fillet elevations shown on sheet S 01 007 from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets S 01 006 and S 01 007, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

BEAM 3

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|------------------------------|--|
| Bk. N. Abut. | 13+99.19 | -7.50 | 661.49 | 661.49 | 661.49 | 661.49 |
| ☿ N. Brg. | 14+00.81 | -12.50 | 661.51 | 661.51 | 661.51 | 661.51 |
| A | 14+10.81 | -12.50 | 661.64 | 661.64 | 661.64 | 661.64 |
| B | 14+20.81 | -12.50 | 661.77 | 661.77 | 661.77 | 661.77 |
| C | 14+30.81 | -12.50 | 661.91 | 661.91 | 661.91 | 661.91 |
| D | 14+40.81 | -12.50 | 662.04 | 662.04 | 662.04 | 662.04 |
| E | 14+50.81 | -12.50 | 662.17 | 662.17 | 662.17 | 662.17 |
| F | 14+60.81 | -12.50 | 662.29 | 662.29 | 662.29 | 662.29 |
| ☿ Pier 103 | 14+69.48 | -12.50 | 662.39 | 662.39 | 662.39 | 662.39 |
| G | 14+79.48 | -12.50 | 662.49 | 662.49 | 662.49 | 662.49 |
| H | 14+89.48 | -12.50 | 662.58 | 662.58 | 662.58 | 662.58 |
| I | 14+99.48 | -12.50 | 662.66 | 662.66 | 662.66 | 662.66 |
| J | 15+09.48 | -12.50 | 662.74 | 662.74 | 662.74 | 662.74 |
| K | 15+19.48 | -12.50 | 662.81 | 662.81 | 662.81 | 662.81 |
| L | 15+29.48 | -12.50 | 662.88 | 662.88 | 662.88 | 662.88 |
| ☿ Pier 102 | 15+44.48 | -7.50 | 662.19 | 662.19 | 662.19 | 662.19 |
| M | 15+54.48 | -12.50 | 662.29 | 662.29 | 662.29 | 662.29 |
| N | 15+64.48 | -12.50 | 662.39 | 662.39 | 662.39 | 662.39 |
| O | 15+74.48 | -12.50 | 662.49 | 662.49 | 662.49 | 662.49 |
| P | 15+84.48 | -12.50 | 662.58 | 662.58 | 662.58 | 662.58 |
| G | 14+79.48 | -12.50 | 661.99 | 661.99 | 661.99 | 661.99 |
| H | 14+89.48 | -12.50 | 662.09 | 662.09 | 662.09 | 662.09 |
| I | 14+99.48 | -12.50 | 662.19 | 662.19 | 662.19 | 662.19 |
| J | 15+09.48 | -12.50 | 662.29 | 662.29 | 662.29 | 662.29 |
| K | 15+19.48 | -12.50 | 662.39 | 662.39 | 662.39 | 662.39 |
| L | 15+29.48 | -12.50 | 662.49 | 662.49 | 662.49 | 662.49 |
| ☿ S. Brg. | 16+13.15 | -7.50 | 661.51 | 661.51 | 661.51 | 661.51 |
| Bk. S. Abut. | 16+14.77 | -7.50 | 661.49 | 661.49 | 661.49 | 661.49 |

BEAM 2

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|------------------------------|--|
| Bk. N. Abut. | 13+99.19 | -12.50 | 661.49 | 661.49 | 661.49 | 661.49 |
| ☿ N. Brg. | 14+00.81 | -12.50 | 661.51 | 661.51 | 661.51 | 661.51 |
| A | 14+10.81 | -12.50 | 661.64 | 661.64 | 661.64 | 661.64 |
| B | 14+20.81 | -12.50 | 661.77 | 661.77 | 661.77 | 661.77 |
| C | 14+30.81 | -12.50 | 661.91 | 661.91 | 661.91 | 661.91 |
| D | 14+40.81 | -12.50 | 662.04 | 662.04 | 662.04 | 662.04 |
| E | 14+50.81 | -12.50 | 662.17 | 662.17 | 662.17 | 662.17 |
| F | 14+60.81 | -12.50 | 662.29 | 662.29 | 662.29 | 662.29 |
| ☿ Pier 103 | 14+69.48 | -12.50 | 662.39 | 662.39 | 662.39 | 662.39 |
| G | 14+79.48 | -12.50 | 662.49 | 662.49 | 662.49 | 662.49 |
| H | 14+89.48 | -12.50 | 662.58 | 662.58 | 662.58 | 662.58 |
| I | 14+99.48 | -12.50 | 662.66 | 662.66 | 662.66 | 662.66 |
| J | 15+09.48 | -12.50 | 662.74 | 662.74 | 662.74 | 662.74 |
| K | 15+19.48 | -12.50 | 662.81 | 662.81 | 662.81 | 662.81 |
| L | 15+29.48 | -12.50 | 662.88 | 662.88 | 662.88 | 662.88 |
| ☿ Pier 102 | 15+44.48 | -12.50 | 662.19 | 662.19 | 662.19 | 662.19 |
| M | 15+54.48 | -12.50 | 662.29 | 662.29 | 662.29 | 662.29 |
| N | 15+64.48 | -12.50 | 662.39 | 662.39 | 662.39 | 662.39 |
| O | 15+74.48 | -12.50 | 662.49 | 662.49 | 662.49 | 662.49 |
| P | 15+84.48 | -12.50 | 662.58 | 662.58 | 662.58 | 662.58 |
| G | 14+79.48 | -12.50 | 661.99 | 661.99 | 661.99 | 661.99 |
| H | 14+89.48 | -12.50 | 662.09 | 662.09 | 662.09 | 662.09 |
| I | 14+99.48 | -12.50 | 662.19 | 662.19 | 662.19 | 662.19 |
| J | 15+09.48 | -12.50 | 662.29 | 662.29 | 662.29 | 662.29 |
| K | 15+19.48 | -12.50 | 662.39 | 662.39 | 662.39 | 662.39 |
| L | 15+29.48 | -12.50 | 662.49 | 662.49 | 662.49 | 662.49 |
| ☿ S. Brg. | 16+13.15 | -12.50 | 661.51 | 661.51 | 661.51 | 661.51 |
| Bk. S. Abut. | 16+14.77 | -12.50 | 661.49 | 661.49 | 661.49 | 661.49 |

BEAM 1

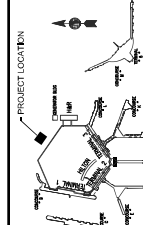
| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|------------------------------|--|
| Bk. N. Abut. | 13+99.19 | -17.50 | 661.39 | 661.39 | 661.39 | 661.39 |
| ☿ N. Brg. | 14+00.81 | -17.50 | 661.41 | 661.41 | 661.41 | 661.41 |
| A | 14+10.81 | -17.50 | 661.51 | 661.51 | 661.51 | 661.51 |
| B | 14+20.81 | -17.50 | 661.61 | 661.61 | 661.61 | 661.61 |
| C | 14+30.81 | -17.50 | 661.71 | 661.71 | 661.71 | 661.71 |
| D | 14+40.81 | -17.50 | 661.81 | 661.81 | 661.81 | 661.81 |
| E | 14+50.81 | -17.50 | 661.91 | 661.91 | 661.91 | 661.91 |
| F | 14+60.81 | -17.50 | 662.01 | 662.01 | 662.01 | 662.01 |
| ☿ Pier 103 | 14+69.48 | -17.50 | 662.09 | 662.09 | 662.09 | 662.09 |
| G | 14+79.48 | -17.50 | 662.19 | 662.19 | 662.19 | 662.19 |
| H | 14+89.48 | -17.50 | 662.28 | 662.28 | 662.28 | 662.28 |
| I | 14+99.48 | -17.50 | 662.36 | 662.36 | 662.36 | 662.36 |
| J | 15+09.48 | -17.50 | 662.44 | 662.44 | 662.44 | 662.44 |
| K | 15+19.48 | -17.50 | 662.52 | 662.52 | 662.52 | 662.52 |
| L | 15+29.48 | -17.50 | 662.60 | 662.60 | 662.60 | 662.60 |
| ☿ Pier 102 | 15+44.48 | -17.50 | 662.09 | 662.09 | 662.09 | 662.09 |
| M | 15+54.48 | -17.50 | 662.19 | 662.19 | 662.19 | 662.19 |
| N | 15+64.48 | -17.50 | 662.29 | 662.29 | 662.29 | 662.29 |
| O | 15+74.48 | -17.50 | 662.39 | 662.39 | 662.39 | 662.39 |
| P | 15+84.48 | -17.50 | 662.49 | 662.49 | 662.49 | 662.49 |
| G | 14+79.48 | -17.50 | 661.99 | 661.99 | 661.99 | 661.99 |
| H | 14+89.48 | -17.50 | 662.09 | 662.09 | 662.09 | 662.09 |
| I | 14+99.48 | -17.50 | 662.19 | 662.19 | 662.19 | 662.19 |
| J | 15+09.48 | -17.50 | 662.29 | 662.29 | 662.29 | 662.29 |
| K | 15+19.48 | -17.50 | 662.39 | 662.39 | 662.39 | 662.39 |
| L | 15+29.48 | -17.50 | 662.49 | 662.49 | 662.49 | 662.49 |
| ☿ S. Brg. | 16+13.15 | -17.50 | 661.41 | 661.41 | 661.41 | 661.41 |
| Bk. S. Abut. | 16+14.77 | -17.50 | 661.39 | 661.39 | 661.39 | 661.39 |

BEAM 4

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|------------------------------|--|
| Bk. N. Abut. | 13+99.19 | -2.50 | 661.69 | 661.69 | 661.69 | 661.69 |
| ☿ N. Brg. | 14+00.81 | -2.50 | 661.71 | 661.71 | 661.71 | 661.71 |
| A | 14+10.81 | -2.50 | 661.81 | 661.81 | 661.81 | 661.81 |
| B | 14+20.81 | -2.50 | 661.91 | 661.91 | 661.91 | 661.91 |
| C | 14+30.81 | -2.50 | 662.01 | 662.01 | 662.01 | 662.01 |
| D | 14+40.81 | -2.50 | 662.11 | 662.11 | 662.11 | 662.11 |
| E | 14+50.81 | -2.50 | 662.21 | 662.21 | 662.21 | 662.21 |
| F | 14+60.81 | -2.50 | 662.31 | 662.31 | 662.31 | 662.31 |
| ☿ Pier 103 | 14+69.48 | -2.50 | 662.39 | 662.39 | 662.39 | 662.39 |
| G | 14+79.48 | -2.50 | 662.49 | 662.49 | 662.49 | 662.49 |
| H | 14+89.48 | -2.50 | 662.58 | 662.58 | 662.58 | 662.58 |
| I | 14+99.48 | -2.50 | 662.63 | 662.63 | 662.63 | 662.63 |
| J | 15+09.48 | -2.50 | 662.64 | 662.64 | 662.64 | 662.64 |
| K | 15+19.48 | -2.50 | 662.61 | 662.61 | 662.61 | 662.61 |
| L | 15+29.48 | -2.50 | 662.54 | 662.54 | 662.54 | 662.54 |
| ☿ Pier 102 | 15+44.48 | -2.50 | 662.39 | 662.39 | 662.39 | 662.39 |
| M | 15+54.48 | -2.50 | 662.29 | 662.29 | 662.29 | 662.29 |
| N | 15+64.48 | -2.50 | 662.19 | 662.19 | 662.19 | 662.19 |
| O | 15+74.48 | -2.50 | 662.09 | 662.09 | 662.09 | 662.09 |
| P | 15+84.48 | -2.50 | 661.99 | 661.99 | 661.99 | 661.99 |
| G | 14+79.48 | -2.50 | 661.89 | 661.89 | 661.89 | 661.89 |
| H | 14+89.48 | -2.50 | 661.79 | 661.79 | 661.79 | 661.79 |
| I | 14+99.48 | -2.50 | 661.69 | 661.69 | 661.69 | 661.69 |
| ☿ S. Brg. | 16+13.15 | -2.50 | 661.71 | 661.71 | 661.71 | 661.71 |
| Bk. S. Abut. | 16+14.77 | -2.50 | 661.69 | 661.69 | 661.69 | 661.69 |

BEAM 5

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|----------|--------|------------------------------|--|------------------------------|--|
| Bk. N. Abut. | 13+99.19 | 2.50 | 661.71 | 661.71 | 661.71 | 661.71 |
| ☿ N. Brg. | 14+00.81 | 2.50 | 661.73 | 661.73 | 661.73 | 661.73 |
| A | 14+10.81 | 2.50 | 661.83 | 661.83 | 661.83 | 661.83 |
| B | 14+20.81 | 2.50 | 661.93 | 661.93 | 661.93 | 661.93 |
| C | 14+30.81 | 2.50 | 662.03 | 662.03 | 662.03 | 662.03 |
| D | 14+40.81 | 2.50 | 662.13 | 662.13 | 662.13 | 662.13 |
| E | 14+50.81 | 2.50 | 662.23 | 662.23 | 662.23 | 662.23 |
| F | 14+60.81 | 2.50 | 662.33 | 662.33 | 662.33 | 662.33 |
| ☿ Pier 103 | 14+69.48 | 2.50 | 662.39 | 662.39 | 662.39 | 662.39 |
| G | 14+79.48 | 2.50 | 662.49 | 662.49 | 662.49 | 662.49 |
| H | 14+89.48 | 2.50 | 662.58 | 662.58 | 662.58 | 662.58 |
| I | 14+99.48 | 2.50 | 662.63 | 662.63 | 662.63 | 662.63 |
| J | 15+09.48 | 2.50 | 662.64 | 662.64 | 662.64 | 662.64 |
| K | 15+19.48 | 2.50 | 662.61 | 662.61 | 662.61 | 662.61 |
| L | 15+29.48 | 2.50 | 662.54 | 662.54 | 662.54 | 662.54 |
| ☿ Pier 102 | 15+44.48 | 2.50 | 662.39 | 662.39 | 662.39 | 662.39 |
| M | 15+54.48 | 2.50 | 662.29 | 662.29 | 662.29 | 662.29 |
| N | 15+64.48 | 2.50 | 662.19 | 662.19 | 662.19 | 662.19 |
| O | 15+74.48 | 2.50 | 662.09 | 662.09 | 662.09 | 662.09 |
| P | 15+84.48 | 2.50 | 661.99 | 661.99 | 661.99 | 661.99 |
| G | 14+79.48 | 2.50 | | | | |



APPROVED AS WORKING PLAN
BY: _____

| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 10/21/19 | | ISSUED FOR BID |

PROJECT NAME: _____

REIRCULATION
BRIDGE REPLACEMENT

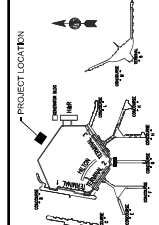
SHEET TITLE:
**TOP OF SLAB
ELEVATIONS 3**

DESIGNED: TCG
DRAWN: TCG
CHECKED: CMS

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO.
S 01 007
REVISION

| Beam | Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevations Adjusted For Dead Load Deflection |
|--------------|--------------|----------|----------|------------------------------|--|
| BEAM 6 | Bk. N. Abut. | 13+99.19 | 7.50 | 661.59 | 661.59 |
| | ☉ N. Brg. | 14+00.81 | 7.50 | 661.61 | 661.61 |
| | A | 14+10.81 | 7.50 | 661.71 | 661.74 |
| | B | 14+20.81 | 7.50 | 661.81 | 661.87 |
| | C | 14+30.81 | 7.50 | 661.91 | 661.97 |
| | D | 14+40.81 | 7.50 | 662.01 | 662.06 |
| | E | 14+50.81 | 7.50 | 662.11 | 662.15 |
| | F | 14+60.81 | 7.50 | 662.21 | 662.22 |
| | ☉ Pier 103 | 14+69.48 | 7.50 | 662.29 | 662.29 |
| | G | 14+79.48 | 7.50 | 662.39 | 662.40 |
| | H | 14+89.48 | 7.50 | 662.48 | 662.50 |
| | BEAM 7 | I | 14+99.48 | 7.50 | 662.53 |
| J | | 15+09.48 | 7.50 | 662.54 | 662.57 |
| K | | 15+19.48 | 7.50 | 662.51 | 662.53 |
| L | | 15+29.48 | 7.50 | 662.44 | 662.44 |
| ☉ Pier 102 | | 15+44.48 | 7.50 | 662.29 | 662.29 |
| M | | 15+54.48 | 7.50 | 662.19 | 662.21 |
| N | | 15+64.48 | 7.50 | 662.09 | 662.14 |
| O | | 15+74.48 | 7.50 | 661.99 | 662.06 |
| P | | 15+84.48 | 7.50 | 661.89 | 661.96 |
| G | | 14+79.48 | 7.50 | 662.39 | 662.40 |
| Q | | 15+94.48 | 7.50 | 661.79 | 661.85 |
| R | | 16+04.48 | 7.50 | 661.69 | 661.72 |
| ☉ S. Brg. | 16+13.15 | 7.50 | 661.61 | 661.61 | |
| Bk. S. Abut. | 16+14.77 | 7.50 | 661.59 | 661.59 | |
| BEAM 8 | Bk. N. Abut. | 13+99.19 | 17.50 | 661.49 | 661.49 |
| | ☉ N. Brg. | 14+00.81 | 17.50 | 661.51 | 661.51 |
| | A | 14+10.81 | 17.50 | 661.61 | 661.64 |
| | B | 14+20.81 | 17.50 | 661.71 | 661.77 |
| | C | 14+30.81 | 17.50 | 661.81 | 661.87 |
| | D | 14+40.81 | 17.50 | 661.91 | 661.97 |
| | E | 14+50.81 | 17.50 | 662.01 | 662.05 |
| | F | 14+60.81 | 17.50 | 662.11 | 662.12 |
| | ☉ Pier 103 | 14+69.48 | 17.50 | 662.19 | 662.19 |
| | G | 14+79.48 | 17.50 | 662.29 | 662.30 |
| | H | 14+89.48 | 17.50 | 662.38 | 662.40 |
| | I | 14+99.48 | 17.50 | 662.43 | 662.46 |
| J | 15+09.48 | 17.50 | 662.44 | 662.47 | |
| K | 15+19.48 | 17.50 | 662.41 | 662.43 | |
| L | 15+29.48 | 17.50 | 662.34 | 662.35 | |
| ☉ Pier 102 | 15+44.48 | 17.50 | 662.19 | 662.19 | |
| M | 15+54.48 | 17.50 | 662.09 | 662.11 | |
| N | 15+64.48 | 17.50 | 661.99 | 662.04 | |
| O | 15+74.48 | 17.50 | 661.89 | 661.96 | |
| P | 15+84.48 | 17.50 | 661.79 | 661.86 | |
| G | 14+79.48 | 17.50 | 662.29 | 662.30 | |
| Q | 15+94.48 | 17.50 | 661.69 | 661.75 | |
| R | 16+04.48 | 17.50 | 661.59 | 661.62 | |
| ☉ S. Brg. | 16+13.15 | 17.50 | 661.51 | 661.51 | |
| Bk. S. Abut. | 16+14.77 | 17.50 | 661.49 | 661.49 | |
| BEAM 9 | Bk. N. Abut. | 13+99.19 | 22.50 | 661.29 | 661.29 |
| | ☉ N. Brg. | 14+00.81 | 22.50 | 661.31 | 661.31 |
| | A | 14+10.81 | 22.50 | 661.41 | 661.44 |
| | B | 14+20.81 | 22.50 | 661.51 | 661.57 |
| | C | 14+30.81 | 22.50 | 661.61 | 661.67 |
| | D | 14+40.81 | 22.50 | 661.71 | 661.77 |
| | E | 14+50.81 | 22.50 | 661.81 | 661.85 |
| | F | 14+60.81 | 22.50 | 661.91 | 661.92 |
| | ☉ Pier 103 | 14+69.48 | 22.50 | 661.99 | 661.99 |
| | G | 14+79.48 | 22.50 | 662.09 | 662.10 |
| | H | 14+89.48 | 22.50 | 662.18 | 662.20 |
| | I | 14+99.48 | 22.50 | 662.23 | 662.26 |
| J | 15+09.48 | 22.50 | 662.24 | 662.27 | |
| K | 15+19.48 | 22.50 | 662.21 | 662.23 | |
| L | 15+29.48 | 22.50 | 662.14 | 662.15 | |
| ☉ Pier 102 | 15+44.48 | 22.50 | 661.99 | 661.99 | |
| M | 15+54.48 | 22.50 | 661.89 | 661.91 | |
| N | 15+64.48 | 22.50 | 661.79 | 661.84 | |
| O | 15+74.48 | 22.50 | 661.69 | 661.76 | |
| P | 15+84.48 | 22.50 | 661.59 | 661.66 | |
| G | 14+79.48 | 22.50 | 662.09 | 662.10 | |
| Q | 15+94.48 | 22.50 | 661.49 | 661.55 | |
| R | 16+04.48 | 22.50 | 661.39 | 661.42 | |
| ☉ S. Brg. | 16+13.15 | 22.50 | 661.31 | 661.31 | |
| Bk. S. Abut. | 16+14.77 | 22.50 | 661.29 | 661.29 | |



APPROVED AS WORKING PLAN

| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME:

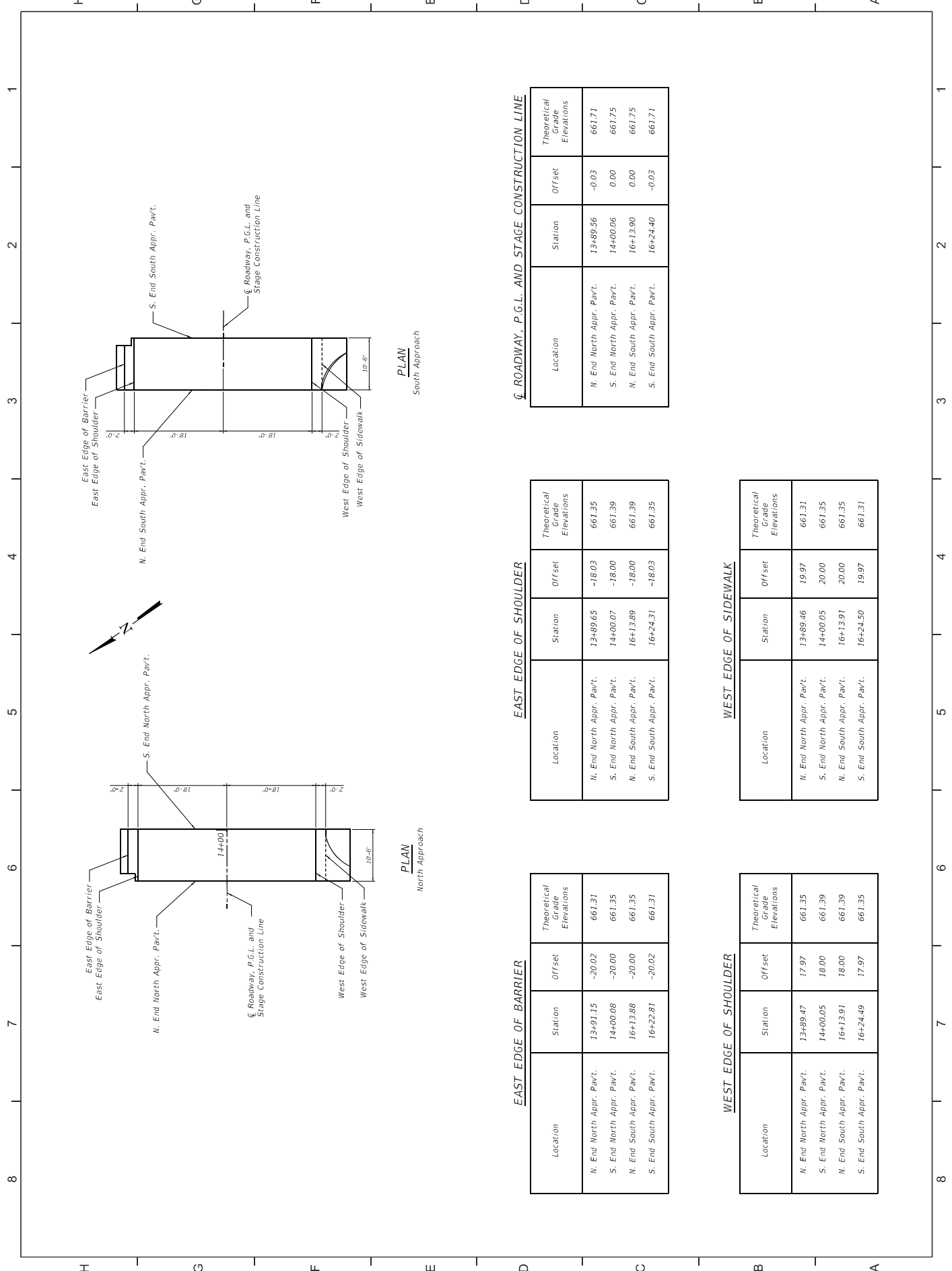
RECIRCULATION
BRIDGE REPLACEMENT

SHEET TITLE:
**TOP OF APPROACH
SLAB ELEVATIONS**

DESIGNED: TCG
DRAWING: TCG
CHECKED: CMS

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO.
S 01 008
REVISION



ROADWAY, P.G.L. AND STAGE CONSTRUCTION LINE

| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------------|----------|--------|------------------------------|
| N. End North Appr. Pav't. | 13+89.56 | -0.03 | 661.71 |
| S. End North Appr. Pav't. | 14+00.06 | 0.00 | 661.75 |
| N. End South Appr. Pav't. | 16+13.90 | 0.00 | 661.75 |
| S. End South Appr. Pav't. | 16+24.40 | -0.03 | 661.71 |

EAST EDGE OF SHOULDER

| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------------|----------|--------|------------------------------|
| N. End North Appr. Pav't. | 13+89.65 | -18.03 | 661.35 |
| S. End North Appr. Pav't. | 14+00.07 | -18.00 | 661.39 |
| N. End South Appr. Pav't. | 16+13.89 | -18.00 | 661.39 |
| S. End South Appr. Pav't. | 16+24.31 | -18.03 | 661.35 |

WEST EDGE OF SIDEWALK

| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------------|----------|--------|------------------------------|
| N. End North Appr. Pav't. | 13+89.46 | 19.97 | 661.31 |
| S. End North Appr. Pav't. | 14+00.05 | 20.00 | 661.35 |
| N. End South Appr. Pav't. | 16+13.91 | 20.00 | 661.35 |
| S. End South Appr. Pav't. | 16+24.50 | 19.97 | 661.31 |

EAST EDGE OF BARRIER

| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------------|----------|--------|------------------------------|
| N. End North Appr. Pav't. | 13+91.15 | -20.02 | 661.31 |
| S. End North Appr. Pav't. | 14+00.08 | -20.00 | 661.35 |
| N. End South Appr. Pav't. | 16+13.88 | -20.00 | 661.35 |
| S. End South Appr. Pav't. | 16+22.81 | -20.02 | 661.31 |

WEST EDGE OF SHOULDER

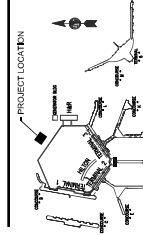
| Location | Station | Offset | Theoretical Grade Elevations |
|---------------------------|----------|--------|------------------------------|
| N. End North Appr. Pav't. | 13+89.47 | 17.97 | 661.35 |
| S. End North Appr. Pav't. | 14+00.05 | 18.00 | 661.39 |
| N. End South Appr. Pav't. | 16+13.91 | 18.00 | 661.39 |
| S. End South Appr. Pav't. | 16+24.49 | 17.97 | 661.35 |



CHICAGO INTERNATIONAL AIRPORT
CITY OF CHICAGO
CHICAGO DEPARTMENT OF AVIATION
100 W. MADISON ST.
MAYOR DAVID M. ROMAN
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CONSULTANT
PEPSTEIN

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CHICAGO, IL 60607
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APPROVED AS WORKING PLAN

| | | |
|----------|------|----------------|
| REV. | DATE | DESCRIPTION |
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PROJECT NAME:

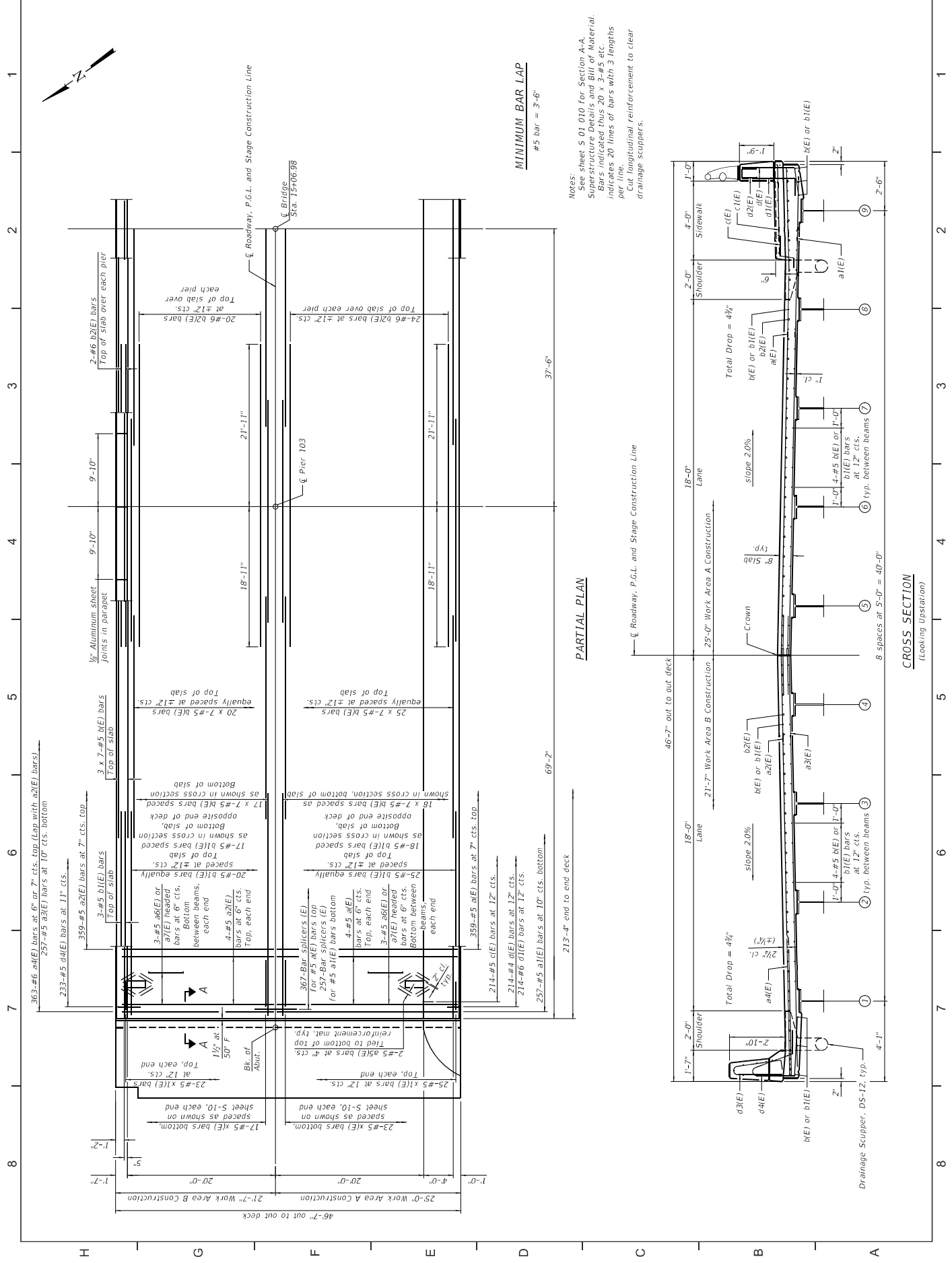
REINFORCEMENT
BRIDGE REPLACEMENT

SHEET TITLE:
**SUPERSTRUCTURE
PLAN AND SECTION**

DESIGNED: CMS
DRAWN: CMS
CHECKED: TOG

PROJECT NO.: H3073.18-00
DATE: 02/21/19

SHEET NO.
S 01 009
REVISION



Notes:
See sheet S 01 010 for Section A-A
Superstructure Details and Bill of Material.
Bars indicated thus 20 x 3-#5 etc.
indicates 20 lines of bars with 3 lengths
per line.
Cut longitudinal reinforcement to clear
drainage scuppers.

PARTIAL PLAN

CROSS SECTION
(Looking Upstream)

MINIMUM BAR LAP
#5 bar = 3'-6"

H

G

F

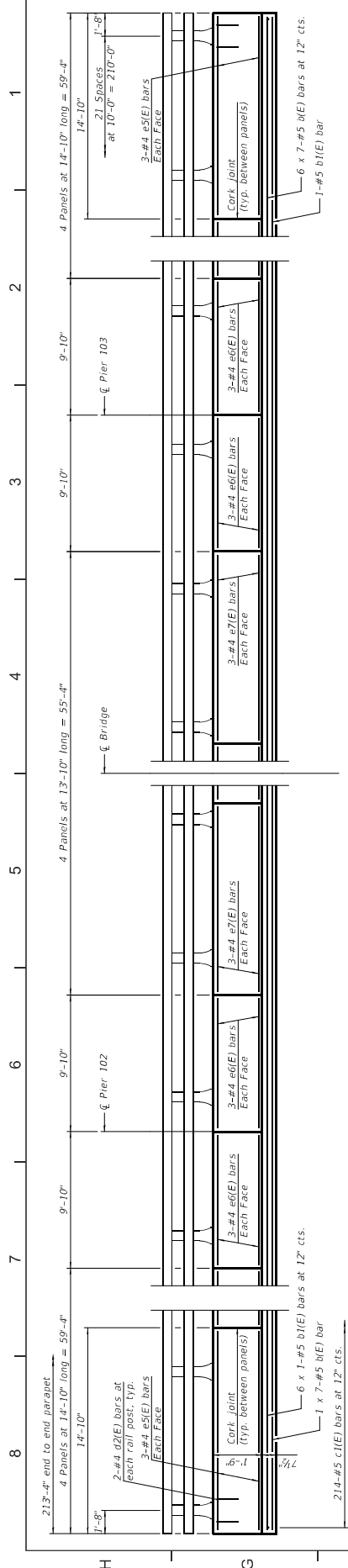
E

D

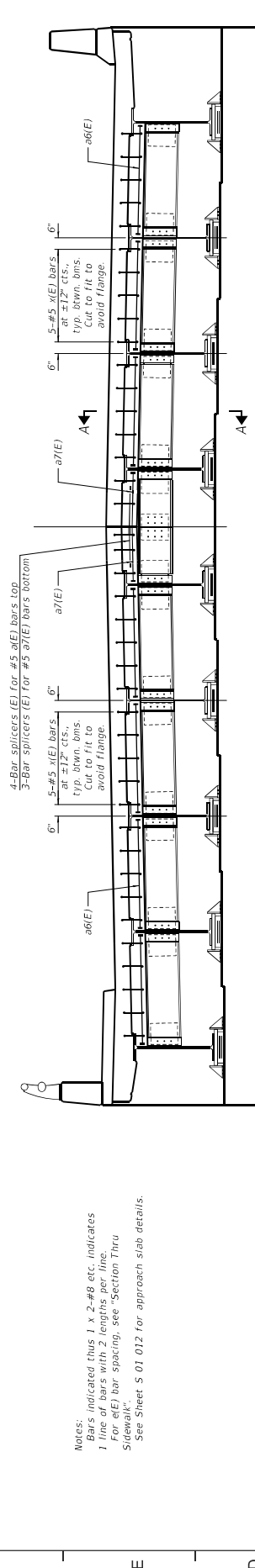
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B

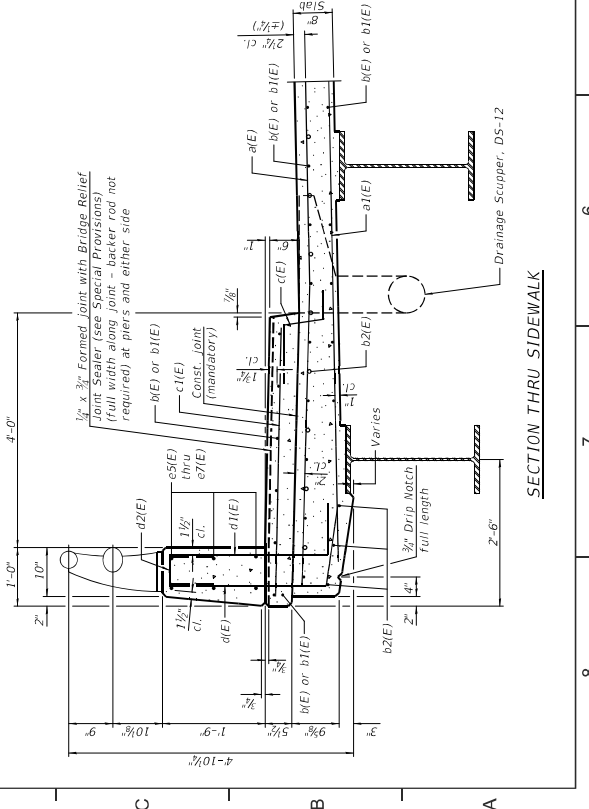
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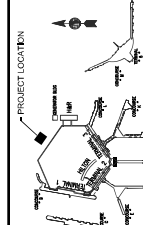
INSIDE ELEVATION OF WEST PARAPET



DIAPHRAGM AT NORTH ABUTMENT
(South Abutment similar, opposite hand)



SECTION THRU SIDEWALK



APPROVED AS WORKING PLAN
REV.

| REV. | DATE | DESCRIPTION |
|----------|----------|----------------|
| 10/21/19 | 10/21/19 | ISSUED FOR BID |

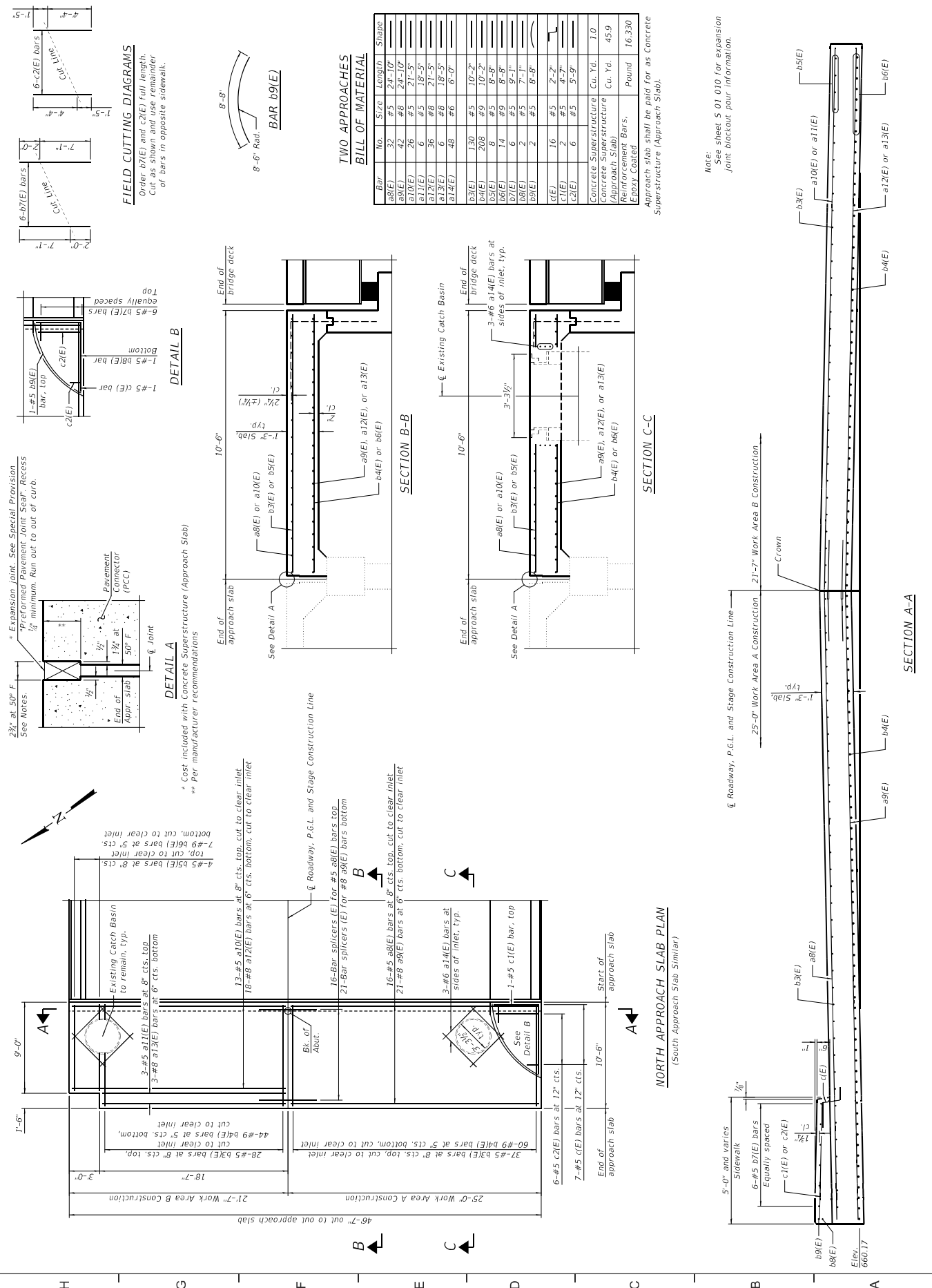
PROJECT NAME:
REINFORCEMENT BRIDGE REPLACEMENT

SHEET TITLE:
SUPERSTRUCTURE DETAILS 1

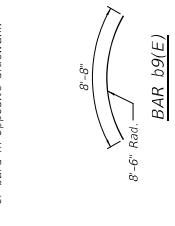
DESIGNED: CMS
DRAWN: CMS
CHECKED: TOG

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO.: **S 01 010**
REVISION:



FIELD CUTTING DIAGRAMS
Order b7(E) and c2(E) full length. Cut as shown and use remainder of bars in opposite sidewalk.



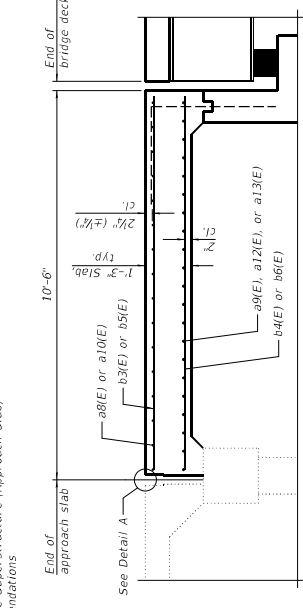
TWO APPROACHES
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|-------------------------|-----|------|---------|--------|
| a8(E) | 32 | #5 | 24'-10" | |
| b7(E) | 26 | #5 | 21'-5" | |
| a11(E) | 6 | #5 | 18'-5" | |
| a12(E) | 6 | #8 | 21'-5" | |
| a13(E) | 6 | #8 | 18'-5" | |
| a14(E) | 48 | #6 | 6'-0" | |
| b3(E) | 130 | #5 | 10'-2" | |
| b4(E) | 208 | #9 | 10'-2" | |
| b5(E) | 8 | #5 | 8'-8" | |
| b6(E) | 14 | #9 | 8'-8" | |
| b7(E) | 6 | #5 | 9'-1" | |
| b8(E) | 2 | #5 | 1'-7" | |
| b9(E) | 2 | #5 | 8'-8" | |
| c1(E) | 16 | #5 | 21'-2" | |
| c1(E) | 2 | #5 | 4'-7" | |
| c2(E) | 6 | #5 | 5'-9" | |
| Concrete Superstructure | | | Co. Yd. | I.O. |
| Concrete Superstructure | | | Co. Yd. | 45.9 |
| Reinforcement Bars | | | Co. Yd. | 16.330 |
| Epoxy Coated | | | | |

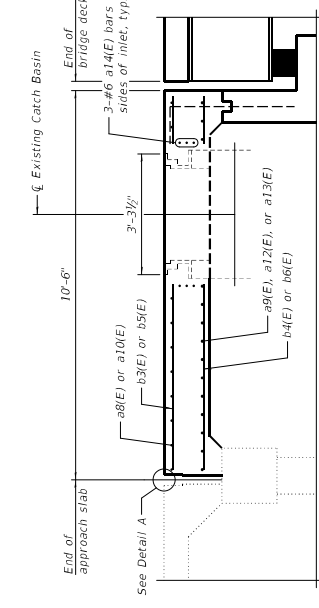
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Notes:
See sheet S 01 010 for expansion joint breakout pair information.

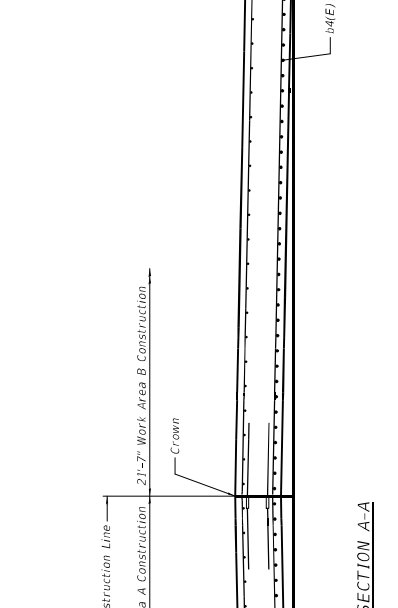
DETAIL B



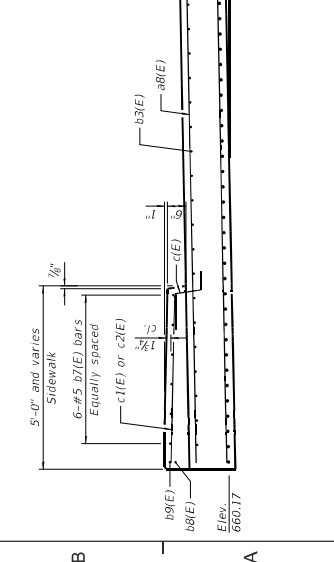
SECTION B-B



SECTION C-C



NORTH APPROACH SLAB PLAN
(South Approach Slab Similar)



RECURCULATION
BRIDGE REPLACEMENT

SHEET TITLE:
BRIDGE APPROACH SLAB PLAN AND DETAILS

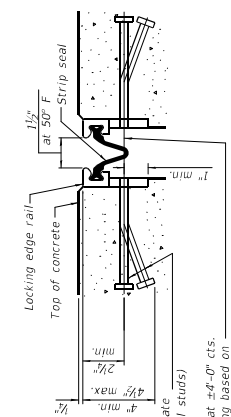
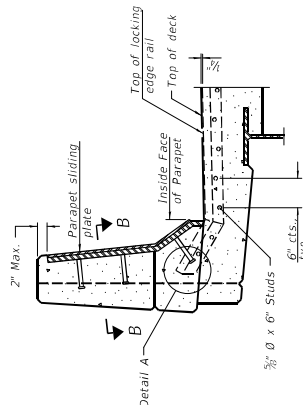
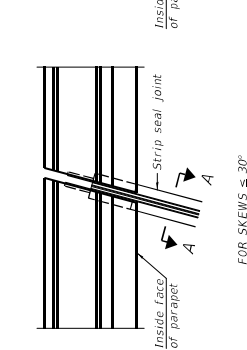
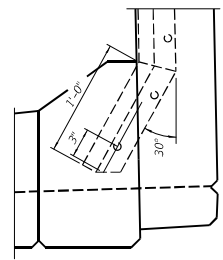
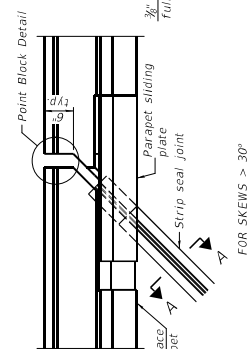
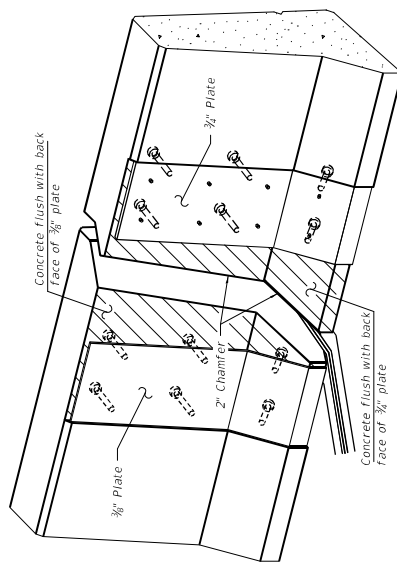
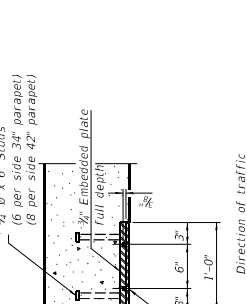
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DRAWN: CMS
CHECKED: TOG

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO.: **S 01 012**
REVISION:

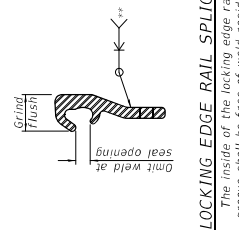
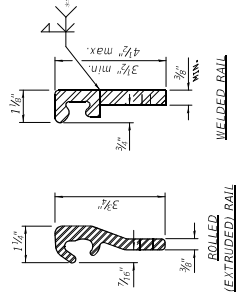
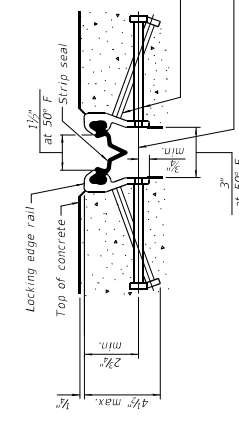
Notes:
The strip seal shall be made continuous and shall have a minimum thickness of 1/2". The configuration of the strip seal shall match the configuration of the locking edge rail. The configuration of the locking edge rail shall be as shown on the drawings. The locking edge rail shall be sized for a maximum rated movement of 4 inches.
The locking edge rails are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer, provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.
The manufacturer's recommended installation methods shall be followed.
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
The maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

Cost of parapet sliding plates, embedded plates, and anchorage studs included with Preformed Joint Strip Seal. 3/4" F-shape barrier shown. 42" F-shape similar as noted. The strip seal shall be continuous and shall be welded on the locking edge rail, chosen by the Contractor. Decked parapet lengths shown elsewhere in the plans are dimensioned on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.



* 3/8" ϕ x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)
3/8" ϕ threaded rods in 7/8" ϕ holes at ± 4 -0" cts. for holding the proper joint opening based on the locking edge rail. Place the rods on the inside face of the locking edge rail. All rods shall be cut off flush with the plates after concrete is set.

SECTION A-A
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



** Back gauge not required if complete joint penetration is verified by mock-up.

APPROVED AS WORKING PLAN

| REV. | DATE | DESCRIPTION |
|----------|----------------|-------------|
| 10/21/19 | ISSUED FOR BID | |

PROJECT NAME:

RECURCULATION
BRIDGE REPLACEMENT

SHEET TITLE:

PREFORMED JOINT STRIP SEAL

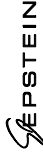
| | | |
|--------------------------|----------------|--------------|
| DESIGNED: TCG | DRAWN: TCG | CHECKED: TCG |
| PROJECT NO.: H3073.15-00 | DATE: 02/21/19 | REVISION: |

S 01 013

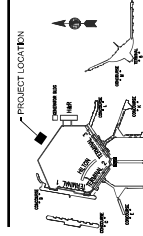


CHICAGO INTERNATIONAL AIRPORT
 CITY OF CHICAGO
 CHICAGO DEPARTMENT OF AVIATION
 1000 N. MICHIGAN
 JAMES L. RIEE
 CHIEF OF AIRPORT OPERATIONS

CONSULTANT



600 W. FULTON
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 BY: _____

| REV | DATE | DESCRIPTION |
|---------------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |
| PROJECT NAME: | | |

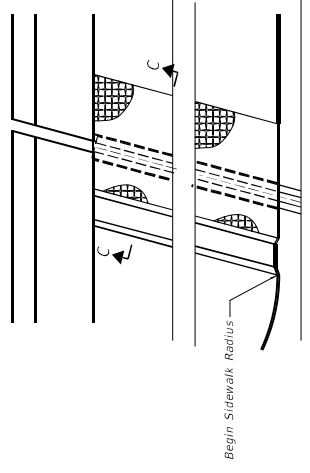
RECIRCULATION
 BRIDGE REPLACEMENT

SHEET TITLE:
**PREFORMED JOINT
 STRIP SEAL
 SIDEWALK PLATE**

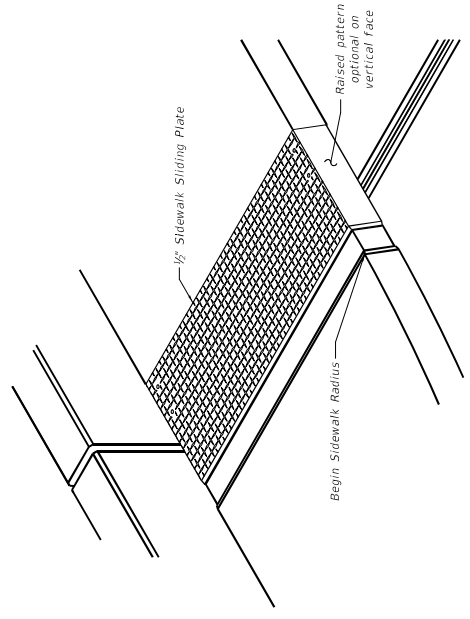
DESIGNED: TCG
 DRAWN: TCG
 CHECKED: TCG

PROJECT NO.: H3073.15-00
 DATE: 02/21/19

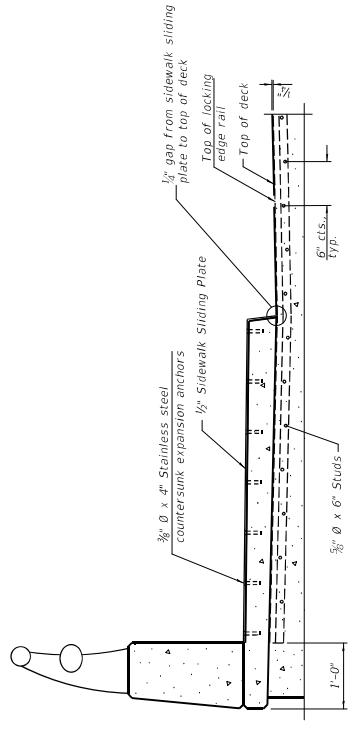
SHEET NO. **S 01 014**
 REVISION



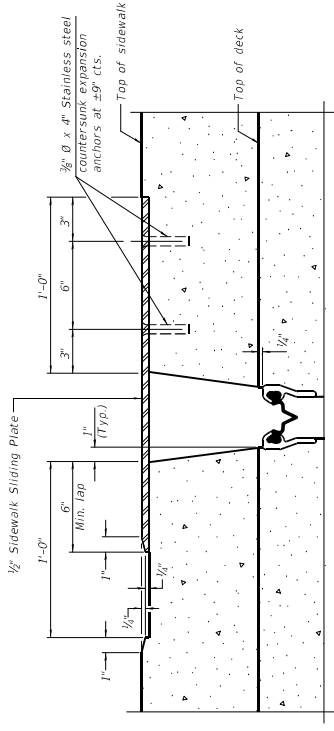
PLAN AT RAISED SIDEWALK



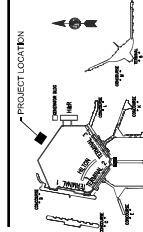
TRIMETRIC VIEW



ELEVATION AT RAISED SIDEWALK



SECTION C-C



APPROVED AS WORKING PLAN
RFL

| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 10/21/19 | | ISSUED FOR BID |

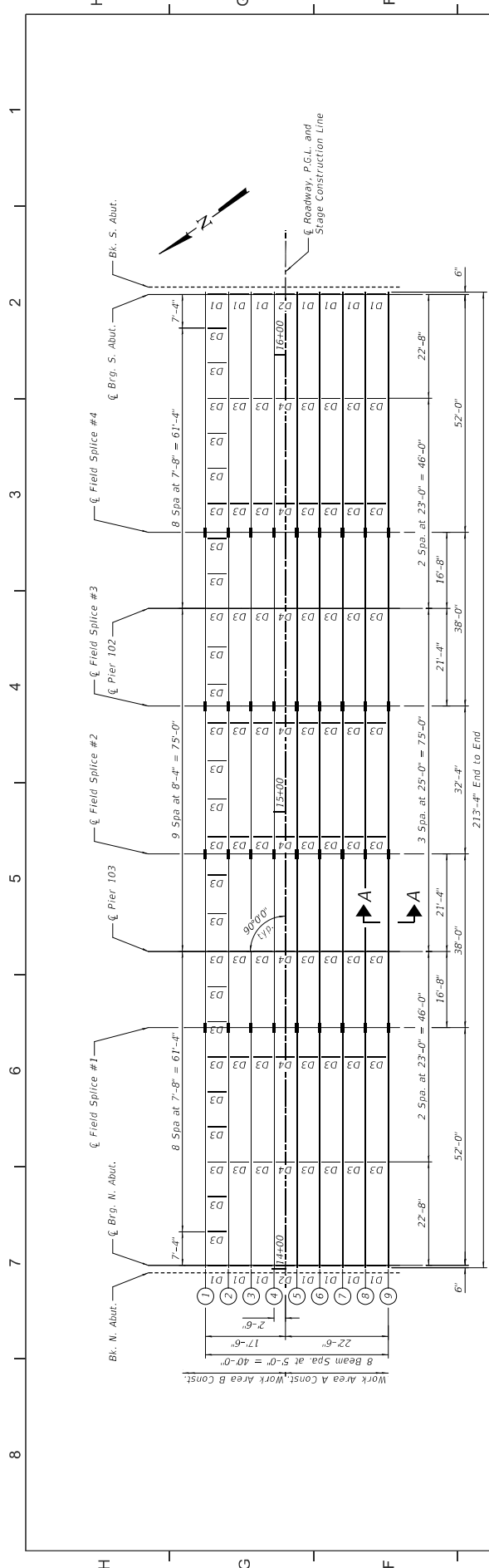
PROJECT TITLE:
REIRCULATION
BRIDGE REPLACEMENT

SHEET TITLE:
FRAMING PLAN

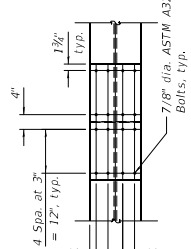
DESIGNED: TCG
DRAWN: TCG
CHECKED: CMS

PROJECT NO.: H3075.15-00
DATE: 02/21/19

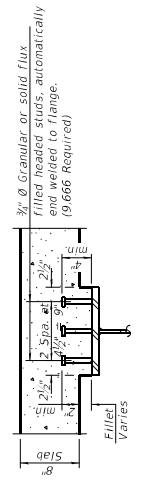
SHEET NO.:
REVISION:
S01017



FRAMING PLAN



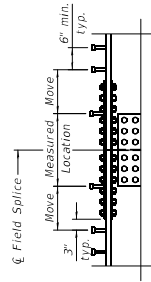
TOP AND BOTTOM FLANGE



SECTION A-A

For Fabrication Only

| Beam | ⊕ Brq. N. Abut. | ⊕ Field Splice #1 | ⊕ Brq. Pier 103 | ⊕ Field Splice #2 | ⊕ Brq. Splice #3 | ⊕ Brq. Pier 102 | ⊕ Field Splice #4 | ⊕ Brq. S. Abut. |
|------|-----------------|-------------------|-----------------|-------------------|------------------|-----------------|-------------------|-----------------|
| 1 | 660.69 | 661.24 | 661.37 | 661.53 | 661.53 | 661.37 | 661.24 | 660.69 |
| 2 | 660.79 | 661.34 | 661.47 | 661.63 | 661.47 | 661.34 | 661.44 | 660.79 |
| 3 | 660.89 | 661.44 | 661.57 | 661.73 | 661.57 | 661.44 | 661.54 | 660.89 |
| 4 | 660.99 | 661.54 | 661.67 | 661.83 | 661.67 | 661.54 | 661.67 | 660.99 |
| 5 | 660.99 | 661.54 | 661.67 | 661.83 | 661.67 | 661.54 | 661.67 | 660.99 |
| 6 | 660.89 | 661.44 | 661.57 | 661.73 | 661.57 | 661.44 | 661.54 | 660.89 |
| 7 | 660.79 | 661.34 | 661.47 | 661.63 | 661.47 | 661.34 | 661.44 | 660.79 |
| 8 | 660.69 | 661.24 | 661.37 | 661.53 | 661.37 | 661.24 | 661.24 | 660.69 |
| 9 | 660.59 | 661.14 | 661.27 | 661.43 | 661.27 | 661.14 | 661.14 | 660.59 |



FIELD SPLICE ELEVATION

SHEAR CONNECTOR DETAIL AT SPLICES

Do not place shear connectors on splice plates. Move rows of studs to 3" beyond nearest edge of splice plate from measured location.

Notes:
All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
All beams and splices shall be AASHTO M270, Grade 50.
All plates and splice plates shall be AASHTO M270, Grade 50.
All structural steel shall be AASHTO Grade 36.
All structural steel shall be hot-dip galvanized.

CONSULTANT

EPSTEIN

600 W. FULTON
CHICAGO, IL 60641
T 312.464.9100 F 312.258.1217

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G

F

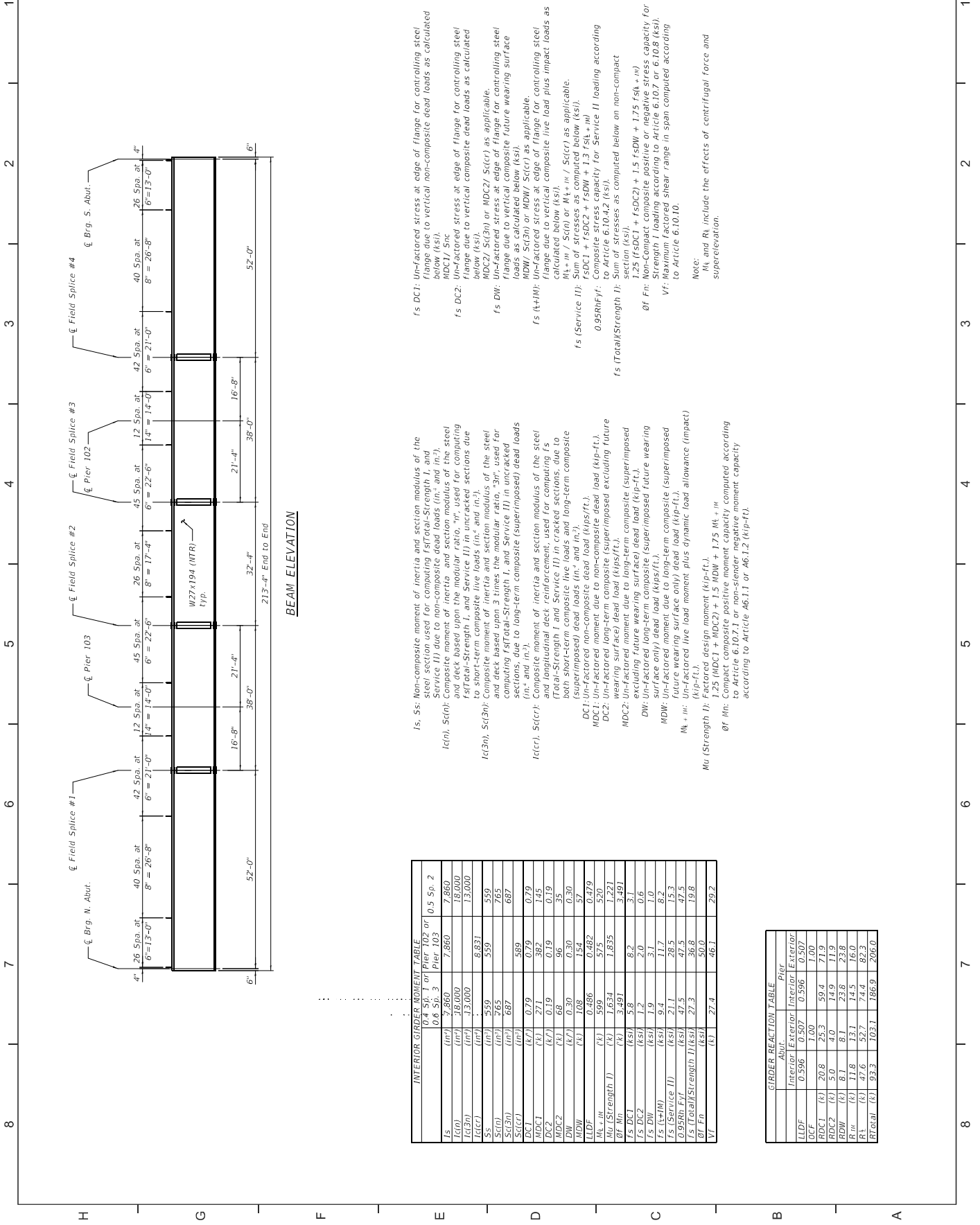
E

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B

A



BEAM ELEVATION

| Is | 0.4 Sp. 1 or Pier 102 or 0.6 Sp. 3 Pier 103 | | 0.5 Sp. 2 |
|-----------------------------------|---|--------------------|-----------|
| | (in ²) | (ft ²) | |
| Ic(n) | 7,860 | 7,860 | 7,860 |
| Ic(3n) | 18,000 | 18,000 | 18,000 |
| Ic(cr) | 13,000 | 13,000 | 13,000 |
| Sc | 8.831 | 8.831 | 8.831 |
| Sc(3n) | 559 | 559 | 559 |
| Sc(cr) | 765 | 765 | 687 |
| DC1 | 0.79 | 0.79 | 0.79 |
| MDC1 | 1.45 | 1.45 | 1.45 |
| DC2 | 0.19 | 0.19 | 0.19 |
| MDC2 | 35 | 35 | 35 |
| DW | 0.30 | 0.30 | 0.30 |
| MDW | 57 | 57 | 57 |
| LLDF | 0.482 | 0.482 | 0.479 |
| M _u + M _v | 599 | 575 | 520 |
| M _u (Strength I) | 1,634 | 1,835 | 1,221 |
| M _v (Strength I) | 3,491 | 3,491 | 3,491 |
| M _u (DC1) | 5 | 5 | 5 |
| M _v (DC1) | 1.9 | 1.9 | 1.0 |
| M _u (DC2) | 9.4 | 11.7 | 8.2 |
| M _v (DC2) | 21.1 | 28.5 | 15.3 |
| M _u (Service II) | 47.5 | 47.5 | 47.5 |
| M _v (Service II) | 27.3 | 36.8 | 19.8 |
| M _u (Total/Strength I) | 27.3 | 36.8 | 19.8 |
| ØF F _n | 50.0 | 50.0 | 29.2 |
| V _f | 46.1 | 46.1 | 29.2 |

| | Abut. | | Pier | |
|--------------------|----------|----------|----------|----------|
| | Interior | Exterior | Interior | Exterior |
| LLDF | 0.596 | 0.507 | 0.596 | 0.507 |
| OCF | 1.00 | 1.00 | 1.00 | 1.00 |
| RDCl (k) | 20.8 | 25.3 | 59.4 | 71.9 |
| RDC2 (k) | 5.0 | 4.0 | 14.9 | 11.9 |
| R _u (k) | 8.1 | 6.1 | 23.8 | 23.8 |
| R _v (k) | 11.8 | 13.1 | 14.5 | 16.0 |
| R _u (k) | 47.6 | 52.7 | 74.4 | 82.3 |
| R _v (k) | 93.3 | 103.1 | 186.9 | 206.0 |

Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing f_s(Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).

Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s(Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in⁴ and in³).

Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "n", used for computing f_s(Total-Strength I, and Service II) in uncracked sections due to long-term composite (superimposed) dead loads (in⁴ and in³).

Ic(cr), Sc(cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in⁴ and in³).

DC1: Un-factored long-term composite (superimposed) dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed) dead load (kip-ft.) excluding future wearing surface (superimposed) dead load (kip-ft.).

MDW: Un-factored moment due to long-term composite (superimposed) surface only dead load (kips/ft.).

M_u: Un-factored moment due to long-term composite (superimposed) future wearing surface only dead load (kip-ft.).

M_v: Un-factored live load moment, plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).

ØF F_n: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).

V_f: Maximum factored shear range in span computed according to Article 6.10.10.

M_u and M_v include the effects of centrifugal force and superelevation.

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).

f_s (M+M_v): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).

f_s (Service II): Sum of stresses as computed below (ksi).

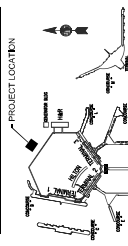
0.95R_nF_v: Capacity stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total/Strength I): Sum of stresses as computed below on non-compact section (ksi).

ØF F_n: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_f: Maximum factored shear range in span computed according to Article 6.10.10.

Notes:
M_u and M_v include the effects of centrifugal force and superelevation.



APPROVED AS WORKING PLAN

| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 10/21/10 | | ISSUED FOR BID |
| | | PROJECT NAME: |

REINFORCEMENT
BRIDGE REPLACEMENT

SHEET TITLE:
BEAM ELEVATION

DESIGNED: TCG
DRAWN: TCG
CHECKED: CMS

PROJECT NO.: H3073.18-00
DATE: 02/21/10

SHEET NO.: S01018
REVISION:

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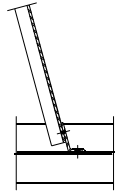
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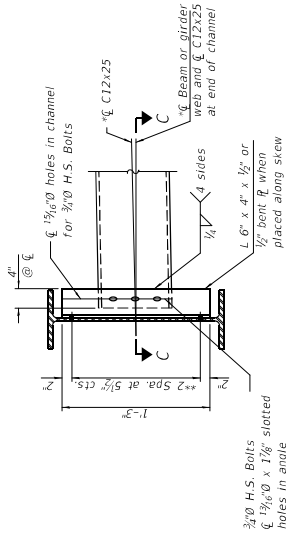
B

A

1 2 3 4 5 6 7 8

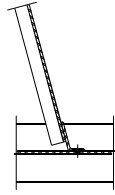


SECTION C-C

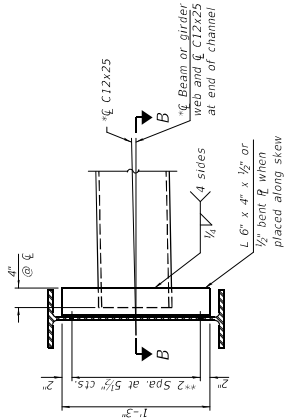


INTERIOR DIAPHRAGM - D4
(8 Required)

Note:
*Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.
+3/8" Ø H.S. bolts, 1 1/2" Ø holes

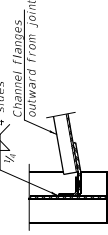


SECTION B-B

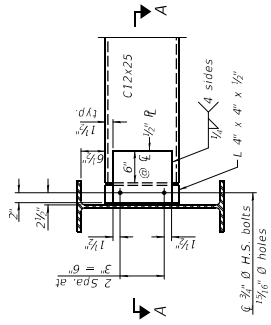


INTERIOR DIAPHRAGM - D3
(74 Required)

Note:
*Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.
+3/8" Ø H.S. bolts, 1 1/2" Ø holes

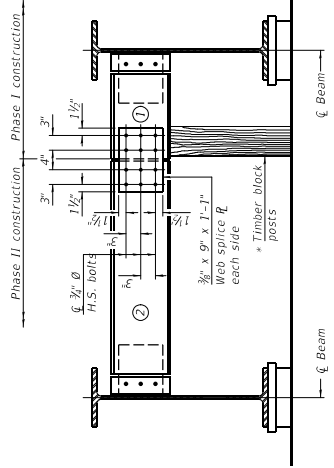


SECTION A-A



END DIAPHRAGM - D1
(114 Required)

Note:
*Cost of Timber Block Posts is included with Structural Steel.



END DIAPHRAGM - D2
(2 Required)

END DIAPHRAGM STAGE
CONSTRUCTION SEQUENCE

- 1.) Order diaphragm in two sections.
- 2.) Attach section ① of diaphragm to beam
- 3.) Place timber block posts between section ① of diaphragm and abutment bearing section.
- 4.) Attach section ② of diaphragm to both beam and section ①
- 5.) Remove timber block posts.

Notes:
All cross frames or diaphragms shall be installed as steel, is erected and spaced in accordance with the drawings. If alternate channels are used, cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
Two hardened washers required for each set of oversized holes.
All structural steel shall be hot-dip galvanized.



APPROVED AS WORKING PLAN
P.H.

| REV | DATE | DESCRIPTION |
|---------------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |
| PROJECT NAME: | | |

REINFORCEMENT
BRIDGE REPLACEMENT

SHEET TITLE:

STEEL DETAILS 1

DESIGNED: TCG
DRAWN: TCG
CHECKED: CMS

PROJECT NO.: H3074.19-00
DATE: 02/21/19

SHEET NO.:
S01019
REVISION:

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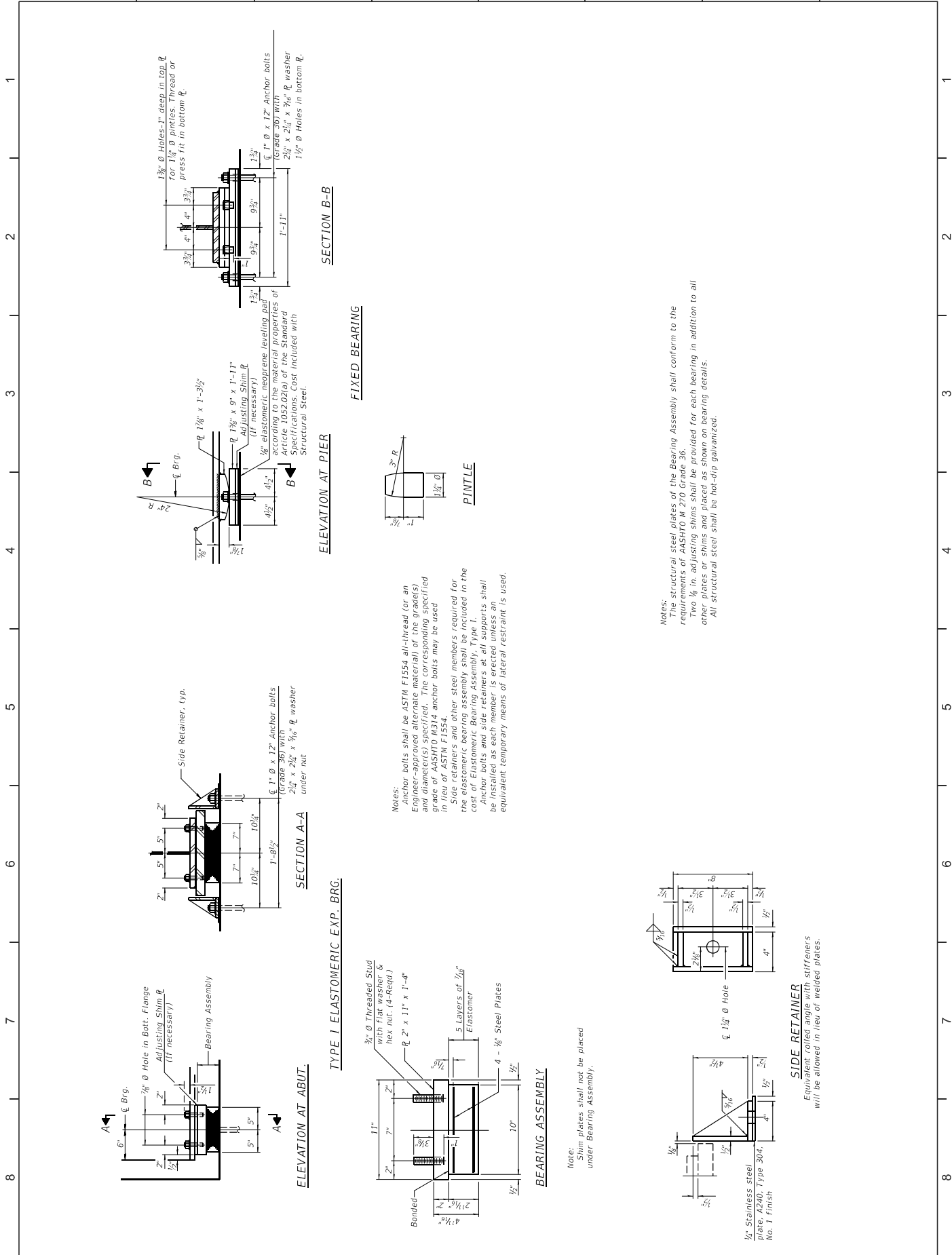
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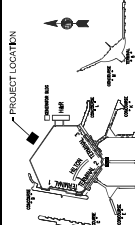
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APPROVED AS WORKING PLAN
BY:

| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME:

REINFORCEMENT
BRIDGE REPLACEMENT

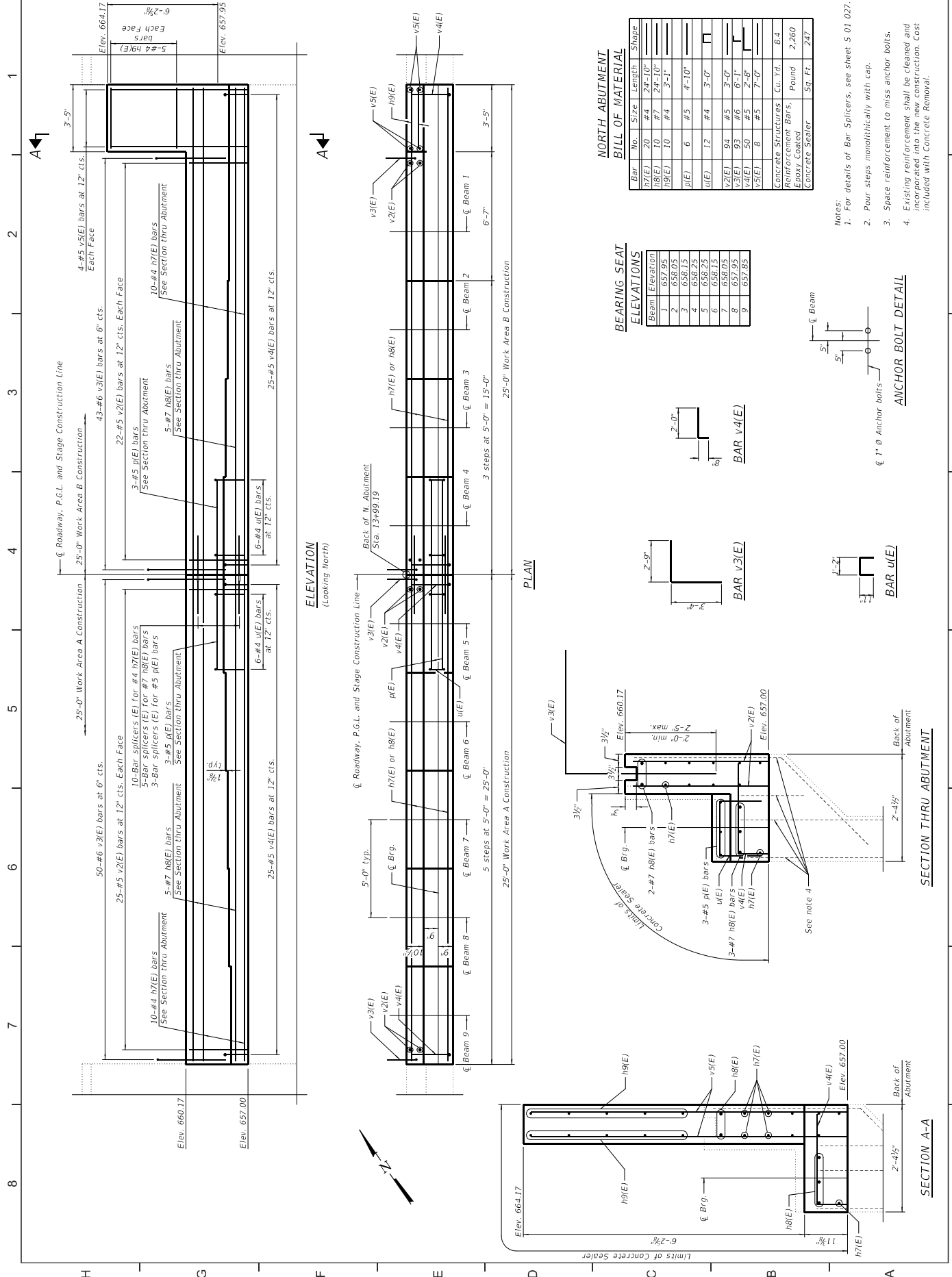
SHEET TITLE:
STEEL DETAILS 2

DESIGNED: TCG
DRAWN: TCG
CHECKED: CMS

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO.:
REVISION:
S 01 020

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ELEVATION
(Looking North)

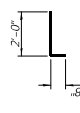
PLAN

NORTH ABUTMENT
BILL OF MATERIAL

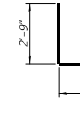
| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|------|---------|-------|
| v3(E) | 20 | #4 | 24'-10" | |
| h8(E) | 10 | #7 | 24'-10" | |
| h9(E) | 10 | #4 | 3'-1" | |
| u(E) | 6 | #5 | 4'-10" | |
| w(E) | 12 | #4 | 3'-0" | |
| v2(E) | 94 | #5 | 3'-0" | |
| v3(E) | 93 | #6 | 6'-1" | |
| v4(E) | 50 | #5 | 2'-8" | |
| v5(E) | 8 | #5 | 7'-0" | |
| Concrete Structures: Cu. Yd. 8.4 | | | | |
| Reinforcement Bars: Pound 2,260 | | | | |
| Epoxy Coated | | | | |
| Concrete Sealer: Sq. Ft. 247 | | | | |

BEARING SEAT
ELEVATIONS

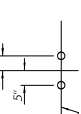
| Beam | Elevation |
|------|-----------|
| 1 | 657.95 |
| 2 | 658.05 |
| 3 | 658.15 |
| 4 | 658.25 |
| 5 | 658.35 |
| 6 | 658.45 |
| 7 | 658.55 |
| 8 | 658.65 |
| 9 | 657.85 |



BAR v4(E)



BAR v3(E)



ANCHOR BOLT DETAIL

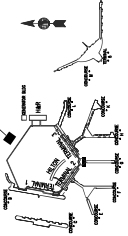
Notes:

- For details of Bar Splitters, see sheet S 01 027.
- Four steps monolithically with cap.
- Space reinforcement to miss anchor bolts.
- Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

SECTION THRU ABUTMENT

SECTION A-A

APPROVED AS WORKING PLAN
RFL



REINFORCEMENT
BRIDGE REPLACEMENT

SHEET TITLE:
**NORTH ABUTMENT
DETAILS**

DESIGNED: CMS
DRAWN: CMS
CHECKED: TOG

PROJECT NO.: H3073.18-00
DATE: 02/21/19

SHEET NO.:
S 01 021
REVISION:

H

G

F

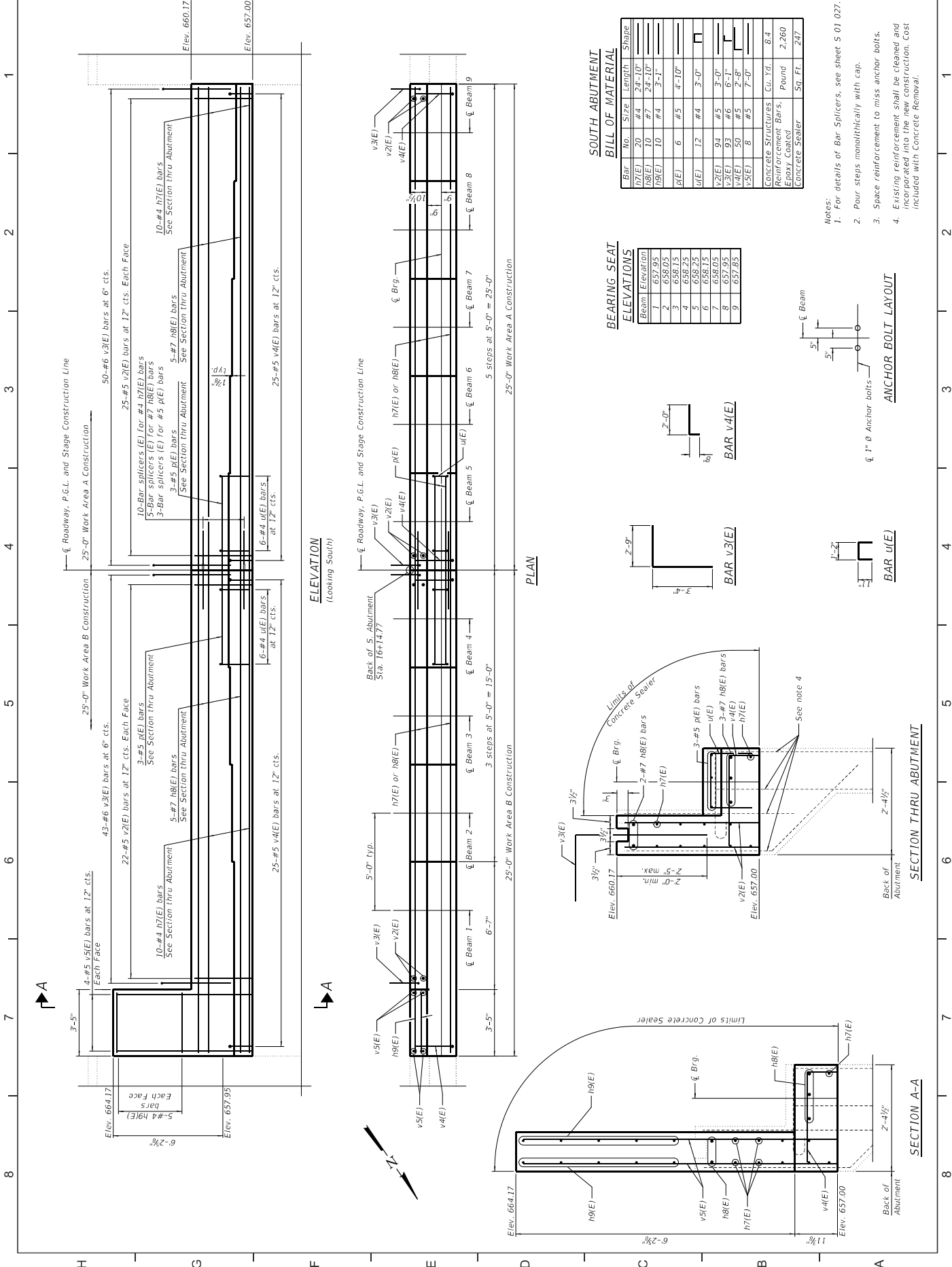
E

D

C

B

A



SOUTH ABUTMENT
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|------------------------------|-----|------|---------|-------|
| v3(E) | 20 | #4 | 24'-10" | |
| h8(E) | 10 | #7 | 24'-10" | |
| h9(E) | 10 | #4 | 3'-1" | |
| p(E) | 6 | #5 | 4'-10" | |
| u(E) | 12 | #4 | 3'-0" | |
| v2(E) | 94 | #5 | 3'-0" | |
| v3(E) | 93 | #6 | 6'-1" | |
| v4(E) | 50 | #5 | 2'-8" | |
| v5(E) | 8 | #5 | 7'-0" | |
| Concrete Structures | | | Cu. Yd. | 8.4 |
| Reinforcement Bars | | | Pound | 2,260 |
| Epoxy Coated Concrete Sealer | | | Sq. Ft. | 247 |

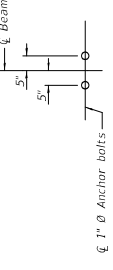
BEARING SEAT
ELEVATIONS

| Beam | Elevation |
|------|-----------|
| 1 | 657.95 |
| 2 | 658.05 |
| 3 | 658.15 |
| 4 | 658.25 |
| 5 | 658.35 |
| 6 | 658.45 |
| 7 | 658.55 |
| 8 | 658.65 |
| 9 | 658.75 |

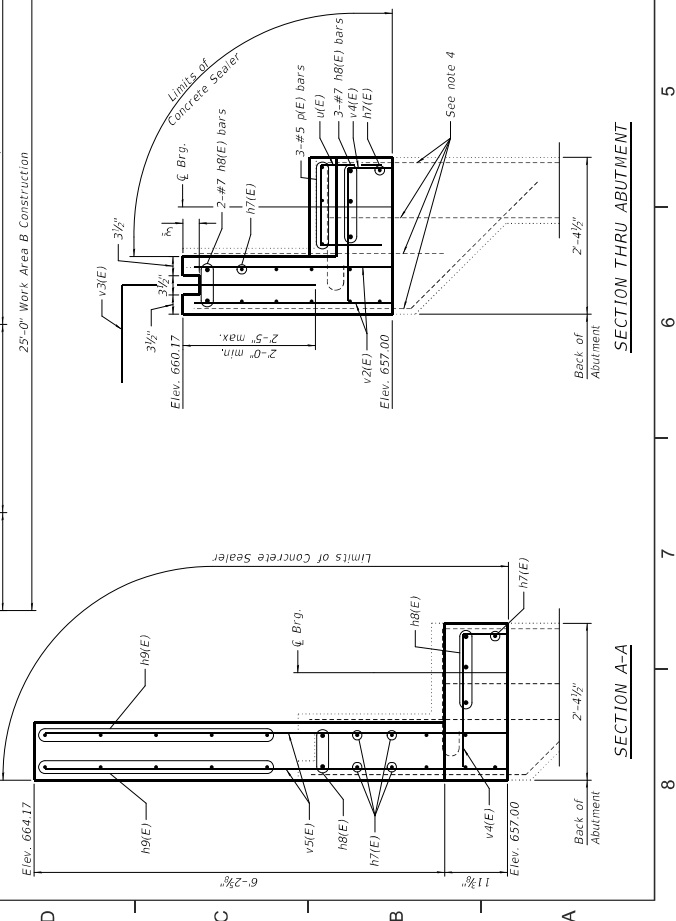
Notes:

- For details of Bar Splitters, see sheet S 01 027.
- Four steps monolithically with cap.
- Space reinforcement to miss anchor bolts.
- Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

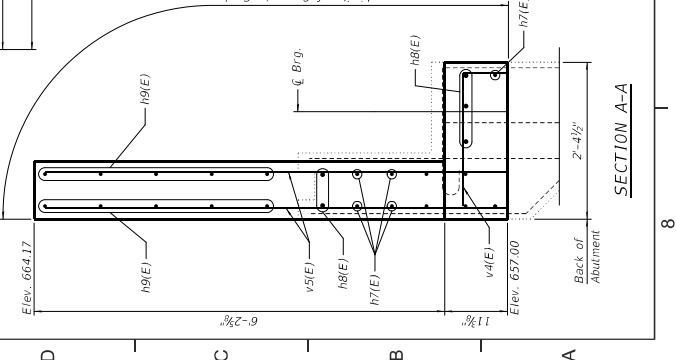
ANCHOR BOLT LAYOUT



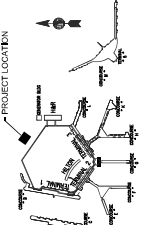
SECTION THRU ABUTMENT



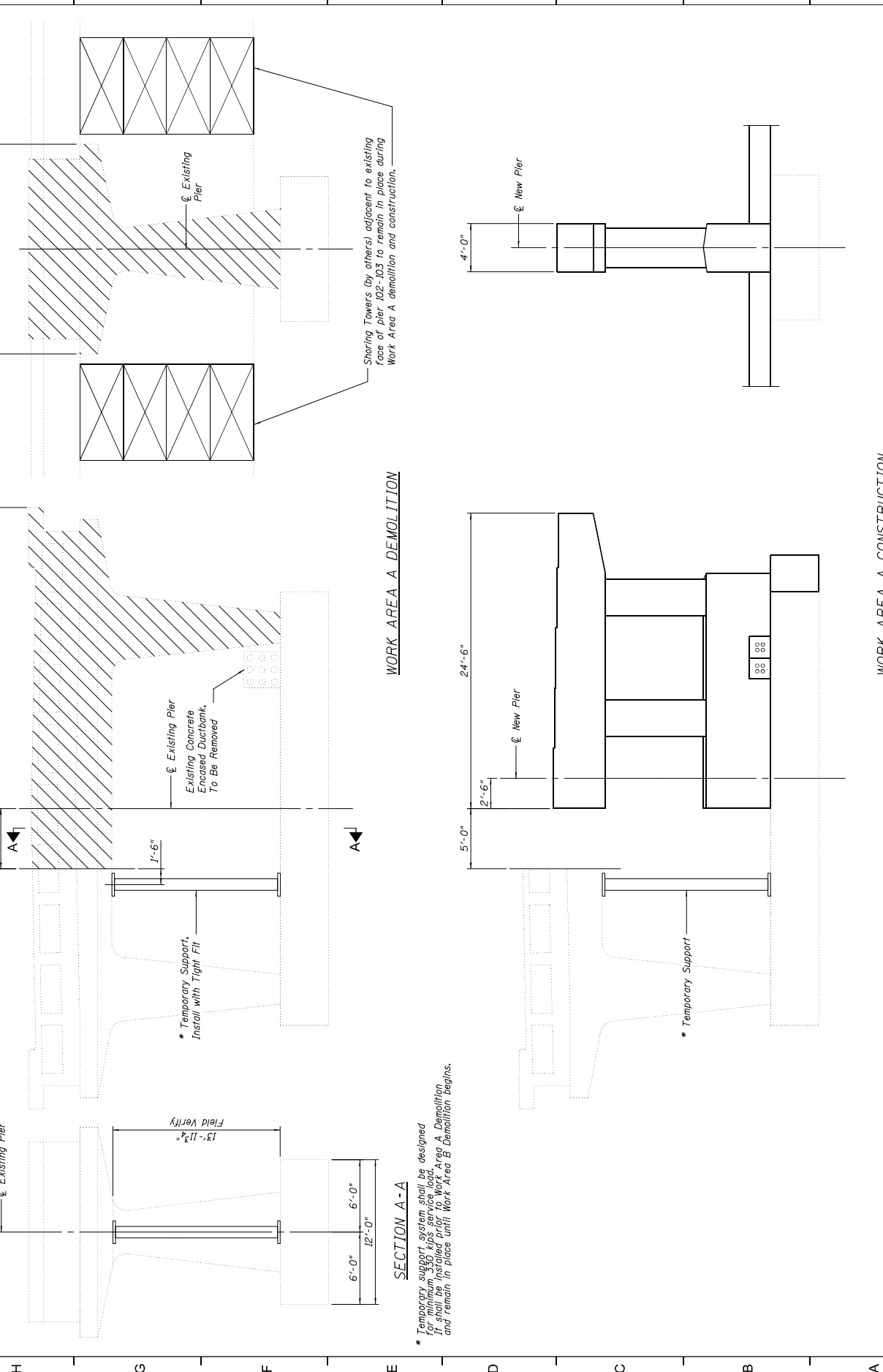
SECTION A-A



APPROVED AS WORKING PLAN
RFL

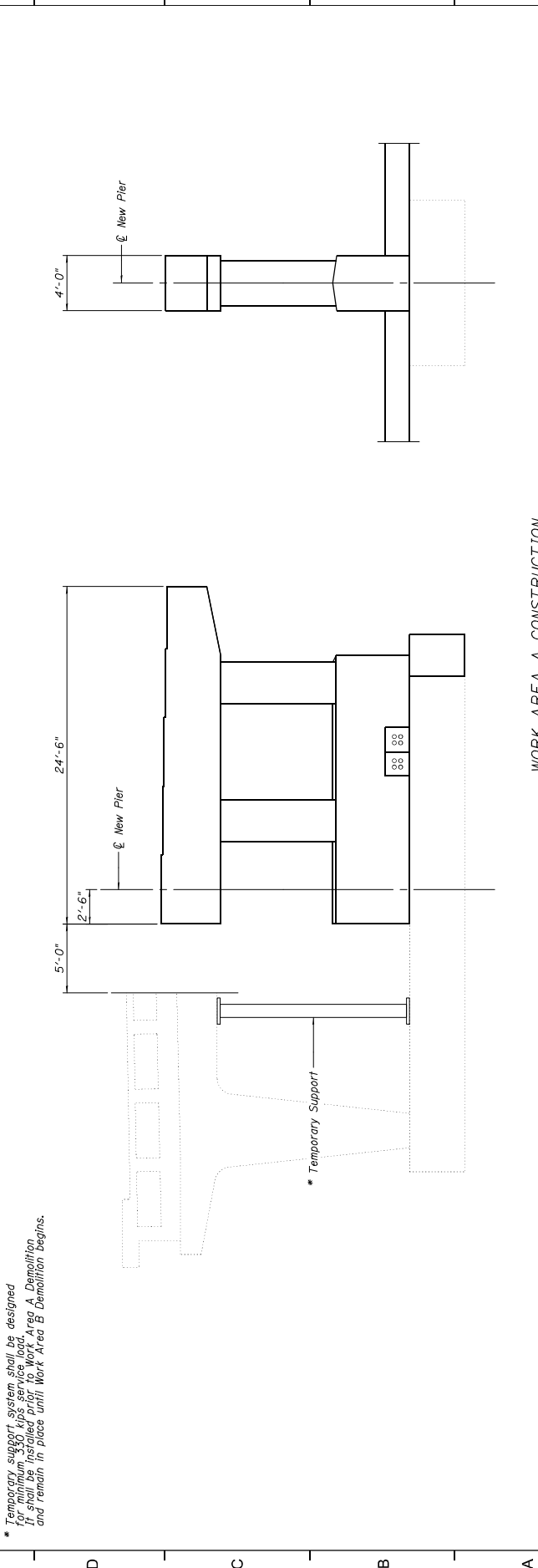


* Temporary support system shall be designed and installed prior to Work Area A Demolition and remain in place until Work Area B Demolition begins.

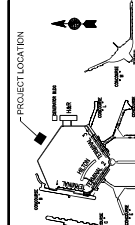


WORK AREA A DEMOLITION

SECTION A-A



WORK AREA A CONSTRUCTION



APPROVED AS WORKING PLAN
DATE:

| REV. | DATE | DESCRIPTION |
|------|----------|--------------------|
| 1 | 02/21/19 | ISSUED FOR BIDDING |
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PROJECT NAME: RECIRCULATION BRIDGE REPLACEMENT

SHEET TITLE: PIER 102 & 103 WORK AREA A CONSTRUCTION

DESIGNED: SEA
DRAWN: SCS
CHECKED: SEA

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO.: S 01 023
REVISION:

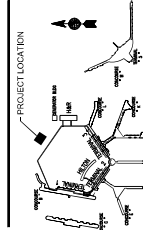


OHARE INTERNATIONAL AIRPORT
 CITY OF CHICAGO
 CHICAGO DEPARTMENT OF AVIATION
 MAYOR J. EMANUEL
 JAMIE L. RIFE
 CHIEF OF STAFF

CONSULTANT



9901 S. WESTERN AVENUE
 CHICAGO, IL 60643
 T. 773.581.4788



APPROVED AS WORKING PLAN
 0/1

| REV. | DATE | ISSUED FOR | DESCRIPTION |
|--------------|------|----------------|-------------|
| 02/21/19 | | ISSUED FOR BID | |
| PROJECT NAME | | | |

REIRCULATION
 BRIDGE REPLACEMENT

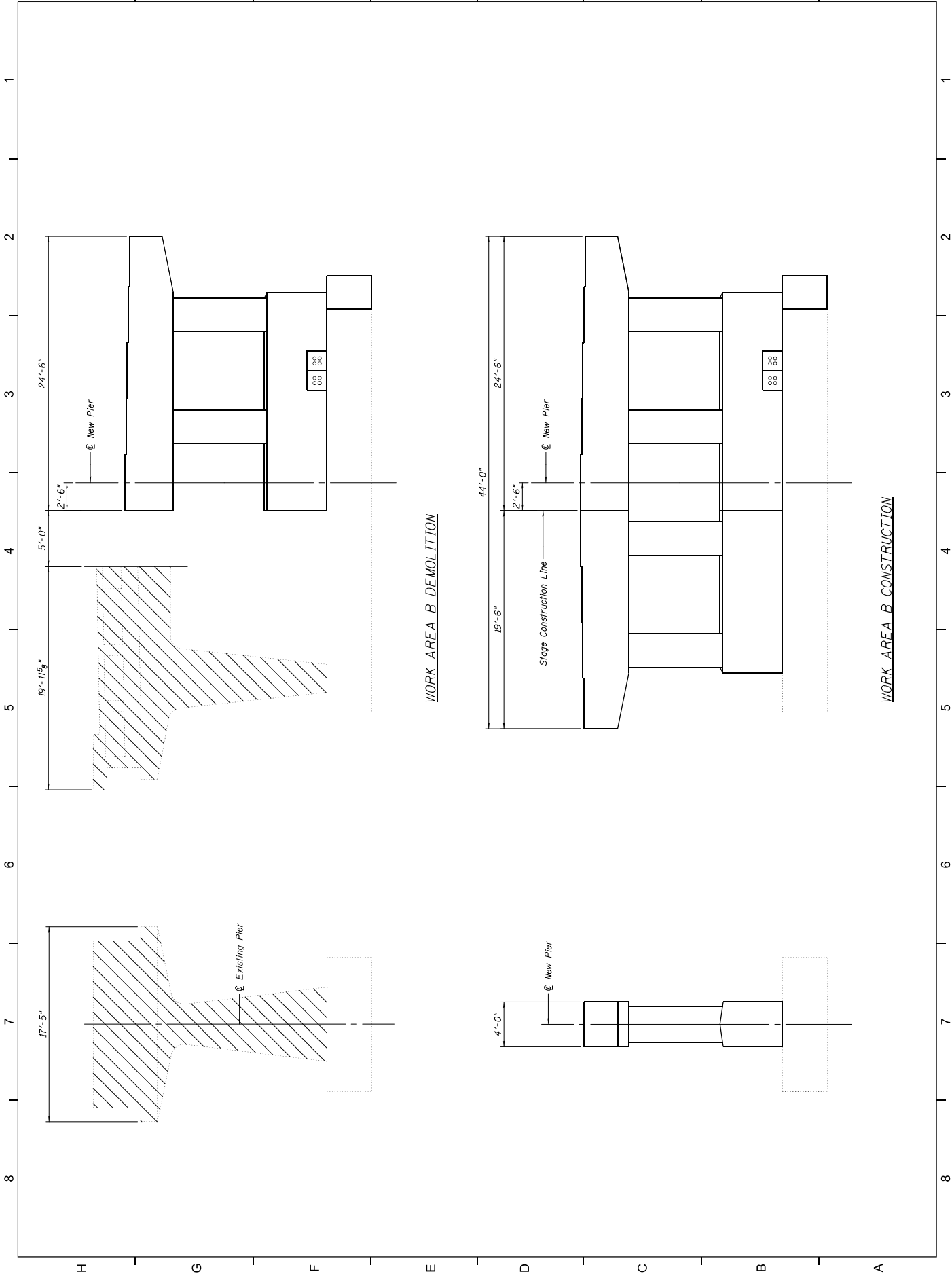
SHEET TITLE:
**PIER 102 & 103
 WORK AREA B CONSTRUCTION**

DESIGNED: SEA DRAWN: SCS CHECKED: SEA

PROJECT NO.: H3073.15-00
 DATE: 02/21/19

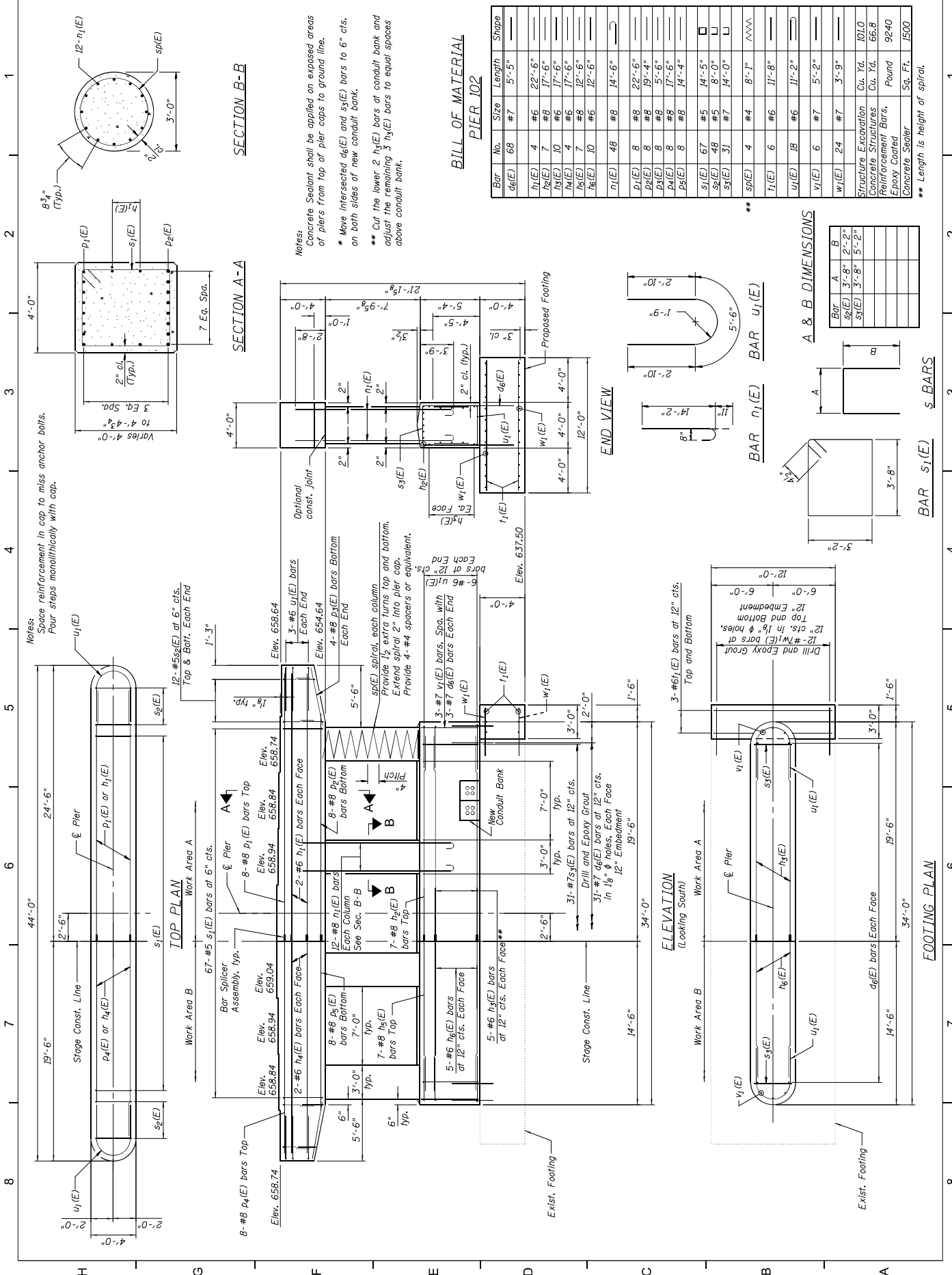
SHEET NO.: **S 01 024**

REVISION

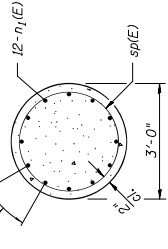


WORK AREA B DEMOLITION

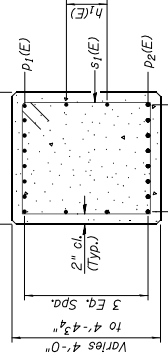
WORK AREA B CONSTRUCTION



Notes:
Space reinforcement in cap to miss anchor bolts.
Four steps monolithically with cap.



SECTION B-B



Notes:
Concrete Sealant shall be applied on exposed areas of piers from top of pier caps to ground line.
* Move intersected 4₆(E) and s₃(E) bars to 6" c/s. on both sides of new conduit bank.
** Cut the lower 2 h₂(E) bars at conduit bank and adjust the remaining 3 h₂(E) bars to equal spaces above conduit bank.

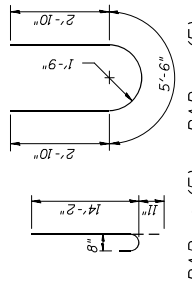
BILL OF MATERIAL
PIER 102

| Bar No. | Size | Length | Shape |
|--------------------|------|--------|-------|
| 66(E) | #7 | 5'-5" | — |
| 71(E) | #4 | 22'-6" | — |
| 72(E) | #8 | 17'-6" | — |
| 73(E) | #8 | 17'-6" | — |
| 74(E) | #6 | 17'-6" | — |
| 75(E) | #6 | 17'-6" | — |
| 76(E) | #6 | 17'-6" | — |
| n ₁ (E) | #8 | 14'-6" | — |
| p ₁ (E) | #8 | 22'-6" | — |
| p ₂ (E) | #8 | 19'-4" | — |
| p ₃ (E) | #8 | 5'-6" | — |
| p ₄ (E) | #8 | 17'-6" | — |
| p ₅ (E) | #8 | 14'-4" | — |
| s ₁ (E) | #5 | 14'-5" | □ |
| s ₂ (E) | #5 | 8'-0" | □ |
| s ₃ (E) | #7 | 14'-0" | □ |
| s ₄ (E) | #4 | 8'-1" | △ |
| u ₁ (E) | #8 | 17'-8" | — |
| v ₁ (E) | #6 | 11'-2" | — |
| w ₁ (E) | #7 | 5'-2" | — |
| w ₂ (E) | #7 | 3'-9" | — |

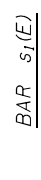
A & B DIMENSIONS

| Bar | A | B |
|--------------------|-------|-------|
| s ₂ (E) | 3'-8" | 2'-2" |
| s ₃ (E) | 3'-8" | 5'-2" |

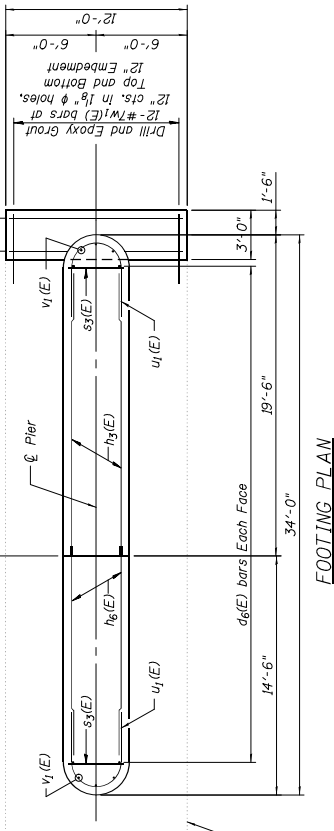
END VIEW



BAR s₁(E)



FOOTING PLAN



BAR s₂(E)



H

G

F

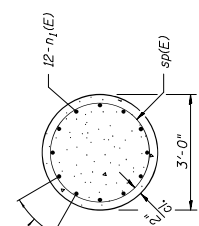
E

D

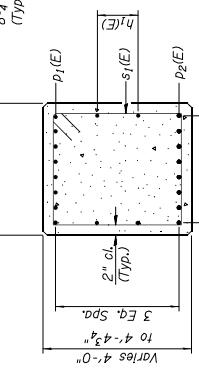
C

B

A



SECTION B-B



SECTION A-A

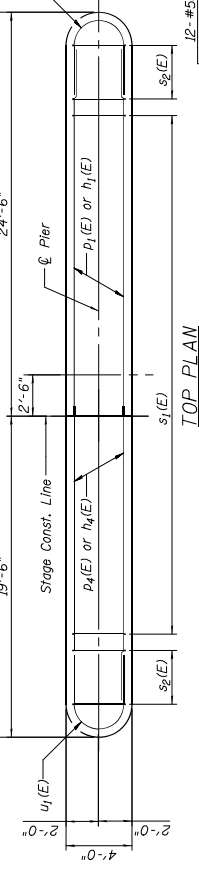
Notes:
Concrete Sealant shall be applied on exposed areas of piers from top of pier caps to ground line.
* Move intersected 4g(E) and 5g(E) bars to 6" cts. on both sides of new conduit bank.
** Cut the lower 2 h2(E) bars at conduit bank and adjust the remaining 3 h3(E) bars to equal spaces above conduit bank.

BILL OF MATERIAL
PIER 103

| Bar No. | Size | Length | Shape |
|----------------------|---------|--------|-------|
| 81 | #7 | 5'-5" | — |
| h1(E) | #4 | 22'-6" | — |
| h2(E) | #8 | 17'-6" | — |
| h3(E) | #8 | 17'-6" | — |
| h4(E) | #4 | 17'-6" | — |
| h7(E) | #7 | 5'-3" | — |
| h8(E) | #6 | 5'-3" | — |
| n1(E) | #8 | 14'-6" | — |
| p1(E) | #8 | 22'-6" | — |
| p2(E) | #8 | 19'-4" | — |
| p3(E) | #8 | 5'-6" | — |
| p4(E) | #8 | 17'-6" | — |
| p5(E) | #8 | 14'-4" | — |
| s1(E) | #5 | 14'-5" | □ |
| s2(E) | #8 | 8'-0" | □ |
| s3(E) | #7 | 14'-0" | □ |
| sp1(E) | #4 | 8'-1" | ΛΛΛΛ |
| t1(E) | #6 | 11'-8" | — |
| u1(E) | #22 | 11'-2" | — |
| u2(E) | #20 | 9'-2" | — |
| v1(E) | #6 | 5'-2" | — |
| w1(E) | #7 | 3'-9" | — |
| Structure Excavation | Cu. Yd. | 101.0 | |
| Concrete Structures | Cu. Yd. | 63.7 | |
| Reinforcement Bars | Pound | 9210 | |
| Epoxy Coated | | | |
| Concrete Sealer | Sq. Ft. | 1460 | |

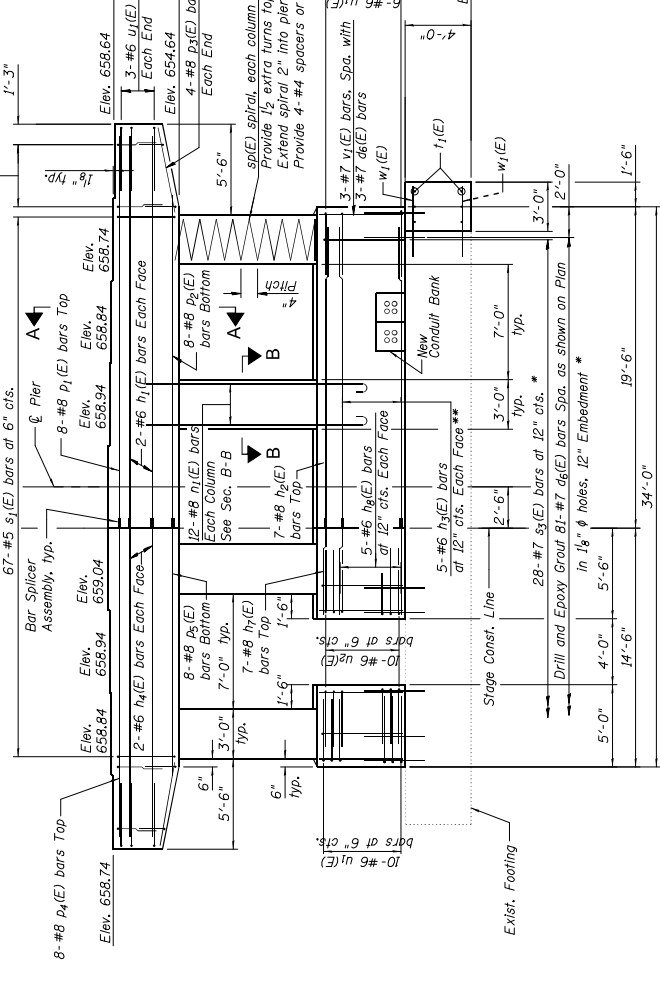
*** Length is height of spiral.

Notes:
Space reinforcement in cap to miss anchor bolts. Four steps monolithically with cap.



TOP PLAN

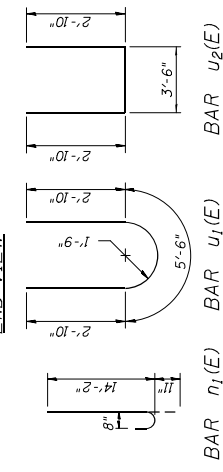
Work Area A
Work Area B



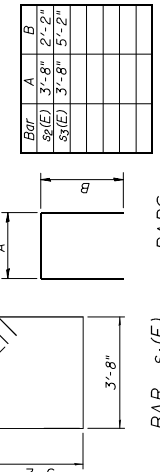
ELEVATION (Looking South)

Work Area A
Work Area B

END VIEW



A & B DIMENSIONS



BAR s1(E)

BAR s2(E)

H

G

F

E

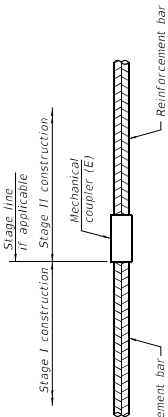
D

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B

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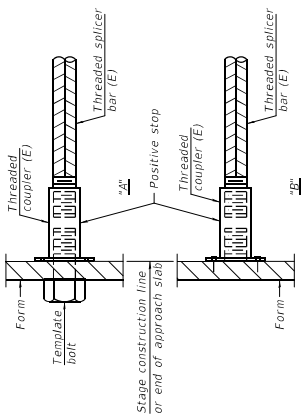
H



STANDARD MECHANICAL SPLICER

| Location | Bar size | No. assemblies required |
|----------------|----------|-------------------------|
| Pier Cap | #8 | 32 |
| Pier Cap | #6 | 8 |
| Pier Crashwall | #8 | 14 |
| Pier Crashwall | #6 | 20 |

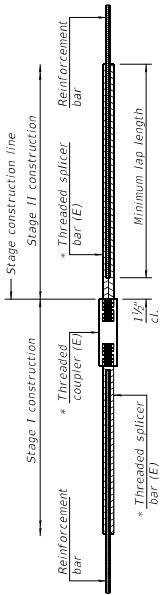
INSTALLATION AND SETTING METHODS
 "A": Set bar splicer assembly by means of a template bolt.
 "B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1 1/2" + thread length
 * Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

| Location | Bar size | No. assemblies required | Minimum lap length |
|----------------|----------|-------------------------|--------------------|
| Deck | #5 | 624 | 3'-6" |
| Diaphragm | #5 | 6 | 3'-0" |
| Approach Slabs | #5 | 32 | 3'-0" |
| Approach Slabs | #8 | 42 | 4'-9" |
| Abutments | #4 | 20 | 2'-11" |
| Abutments | #5 | 6 | 3'-7" |
| Abutments | #7 | 10 | 5'-0" |



H

G

F

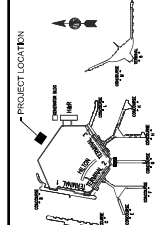
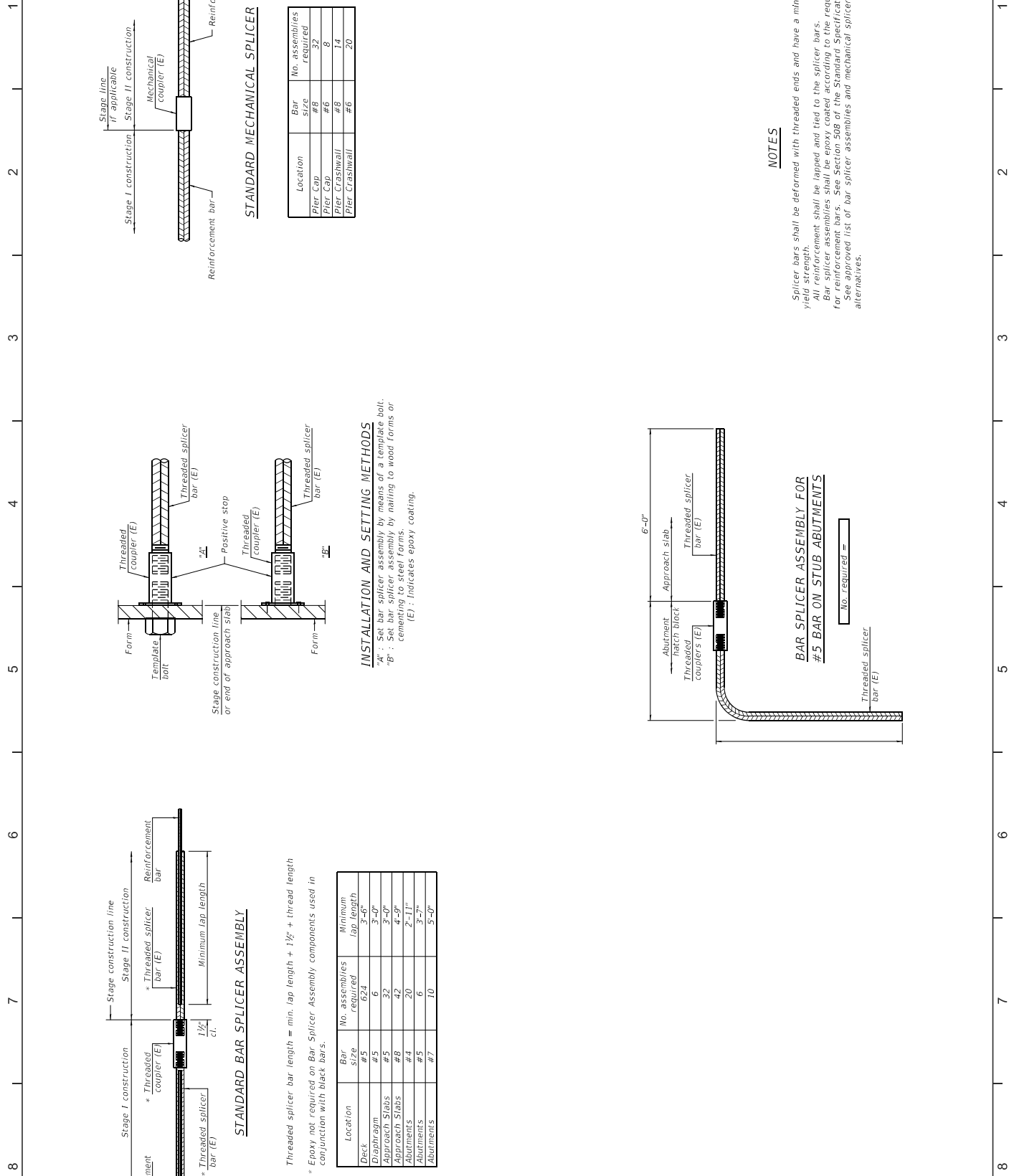
E

D

C

B

A



APPROVED AS WORKING PLAN
 RFL

| REV | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME:

REINFORCEMENT
 BRIDGE REPLACEMENT

SHEET TITLE:
BAR SPLICER ASSEMBLY DETAILS

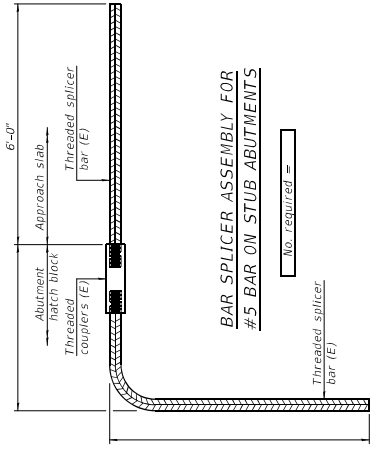
DESIGNED: TCG
 CHECKED: TCG

PROJECT NO.: H3073.15-00
 DATE: 02/21/19

SHEET NO.
S 01 027

NOTES

SPLICER BARS shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for epoxy coated reinforcement in the project specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

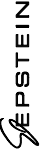
No. required =

Threaded splicer bar (E)



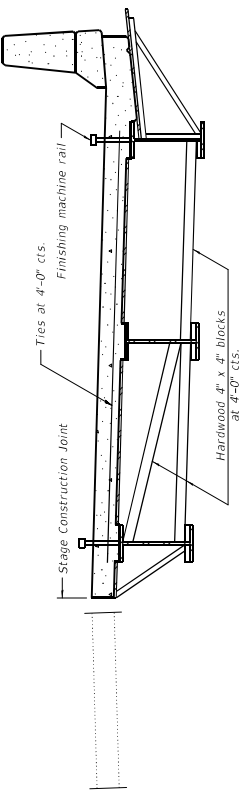
OHARE INTERNATIONAL AIRPORT
 CITY OF CHICAGO
 CHICAGO DEPARTMENT OF AVIATION
 1100 W. WASHINGTON
 HAVENS CENTER
 JAMES L. RIEE
 CHIEF OF STAFF

CONSULTANT

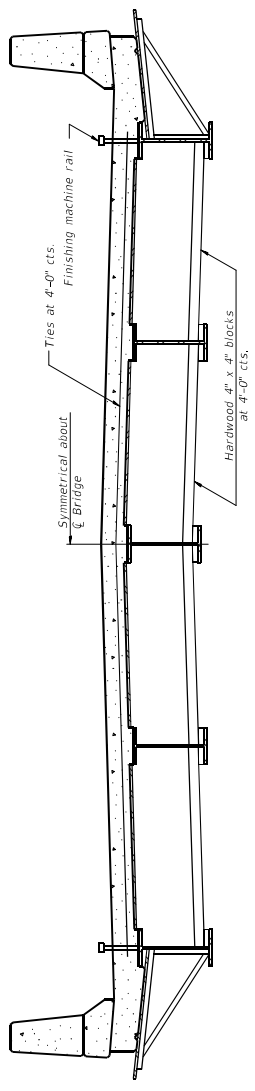


600 W. FULTON
 SUITE 200
 CHICAGO, ILLINOIS 60609
 T: 312.464.9100 F: 312.259.1217

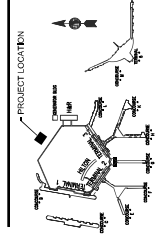
When cantilever forming brackets are used, the work shall be done according to the following specifications, except as modified below and in the details shown on this sheet.
 The finishing machine rails shall be placed on the top flange of the exterior beams.
 The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.
 For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



FORM BRACES FOR
 STAGE CONSTRUCTION



FORM BRACES FOR
 STANDARD CONSTRUCTION



APPROVED AS WORKING PLAN
 P.H.

| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME:

RECIRCULATION
 BRIDGE REPLACEMENT

SHEET TITLE:
**CANTILEVER FORMING
 BRACKETS**

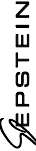
DESIGNED: TCG
 DRAWN: TCG
 CHECKED: TCG

PROJECT NO.: H3073.15-00
 DATE: 02/21/19

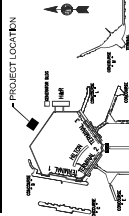
SHEET NO. **S 01 028**
 REVISION



OHARE INTERNATIONAL AIRPORT
CITY OF CHICAGO
CHICAGO DEPARTMENT OF AVIATION
1300 S. BRUNNEN
RAYMOND EMANUEL
JAMIE L. RICE
COMMUNICATIONS GROUP
CONSULTANT



600 W. FULTON
CHICAGO, IL 60661
T 312.454.9100 F 312.559.1217



APPROVED AS WORKING PLAN
RFL

| REV | DATE | DESCRIPTION |
|---------|----------|----------------|
| 0022110 | 02/21/19 | ISSUED FOR BID |

PROJECT NAME:

RECIRCULATION
BRIDGE REPLACEMENT

SHEET TITLE:

SOIL BORING LOGS 2

DESIGNED: TCG
DRAWN: TCG
CHECKED: TCG

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO. REVISED

S01030

| | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|--|---|---|---|---|---|---|---|---|
| <div data-bbox="491 1592 1114 2056"> <p>PAGE 2 of 2 DATE November 2, 2017 LOGGED BY JRM GMA JOB No. J1250</p> <p>SECTION NO. 1-100 LOCATION Chicago International Airport, Chicago, IL, Terminal Area, Section 2. DESCRIPTION Rehabilitation Bridge Replacement, Identification No. 80030 DRILLING METHOD Direct Push Auger INSTALLATION TYPE CME Automated</p> <p>COUNTY Cook SHEET NO. 38016-0583 SHEET SCALE 1/20</p> <p>BORING NO. B-02 LITHOLOG 4" - 32.21" Ground Surface Elev. 558.3 Spot Elev. 558.3 Elev. at Depth Elev. 558.3</p> <p>CLAY-SPREADER 5.0' - 8.0' very stiff to hard</p> <p>END OF BORING @ -85.0' 3.25' below stem to -85.0'</p> </div> <div data-bbox="491 985 1114 1449"> <p>PAGE 1 of 2 DATE November 2, 2017 LOGGED BY JRM GMA JOB No. J1250</p> <p>SECTION NO. 1-100 LOCATION Chicago International Airport, Chicago, IL, Terminal Area, Section 5. DESCRIPTION Rehabilitation Bridge Replacement, Identification No. 80030 DRILLING METHOD Direct Push Auger INSTALLATION TYPE CME Automated</p> <p>COUNTY Cook SHEET NO. 38016-0593 SHEET SCALE 1/20</p> <p>BORING NO. B-03 LITHOLOG 4" - 32.21" Ground Surface Elev. 564.6 Spot Elev. 564.6 Elev. at Depth Elev. 564.6</p> <p>10" CONCRETE, 14" CHISELED STONE FIL (CA-10) CLAY-SPREADER 8' - 9' 3.1' beam very stiff (departs FIL) CLAY-SPREADER 8' - 9' 3.1' beam very stiff to hard</p> <p>END OF BORING @ -85.0' 3.25' below stem to -85.0'</p> </div> <div data-bbox="491 380 1114 844"> <p>PAGE 2 of 2 DATE November 2, 2017 LOGGED BY JRM GMA JOB No. J1250</p> <p>SECTION NO. 1-100 LOCATION Chicago International Airport, Chicago, IL, Terminal Area, Section 2. DESCRIPTION Rehabilitation Bridge Replacement, Identification No. 80030 DRILLING METHOD Direct Push Auger INSTALLATION TYPE CME Automated</p> <p>COUNTY Cook SHEET NO. 38016-0593 SHEET SCALE 1/20</p> <p>BORING NO. B-03 LITHOLOG 4" - 32.21" Ground Surface Elev. 564.6 Spot Elev. 564.6 Elev. at Depth Elev. 564.6</p> <p>CLAY-SPREADER 5.0' - 8.0' very stiff to hard</p> <p>END OF BORING @ -85.0' 3.25' below stem to -85.0'</p> </div> | | | | | | | | |

GENERAL NOTES

SPECIFICATIONS:

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications") ②

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Structures, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load. (All Obstructions)

MINIMUM CLEARANCE: 3'- greater than bridge members at all locations.

WELDING: All welds to be continuous unless otherwise shown.

All welding to be done in accordance with current AWS D11 Structural Welding Code (Steel) and the Standard Specifications.

MATERIALS: All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.

All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 M183, ME23 Gr. 50.

HIGH STRENGTH BOLTS: All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307, unless noted as "H.S.", which shall require AASHTO M164 (A325), ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.

GALVANIZING: All Steel Gratings, Plates, Shapes and Pipe shall be hot dip galvanized after fabrication in accordance with AASHTO M11. Painting is not permitted.

ANCHOR RODS: All threaded rod shall conform to ASTM F1554 Grade 105, 3/4" ϕ x 12" long, each with one plate washer and nut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

① Bracket spacing $g \leq 6'-0"$, max. Spacing shall be uniform, if possible but may vary 16" to miss existing obstruction train post, light poles, wwp stiffeners, splice plates, etc. Adjust bracket lengths accordingly on skewed structures.

② Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.

③ Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of responsibility shall be as shown on drawings unless otherwise specified. For Safety Chain Details and Details D, F and G, see Sheet S 02 004.

④ If walkway bracket at safety chain location is behind sign, add angle to bracket. See detail on Sheet S 02 004.

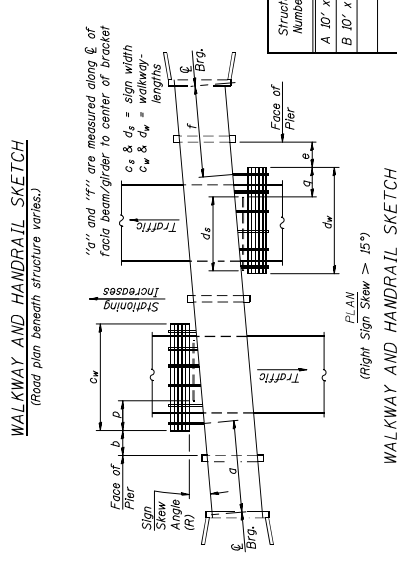
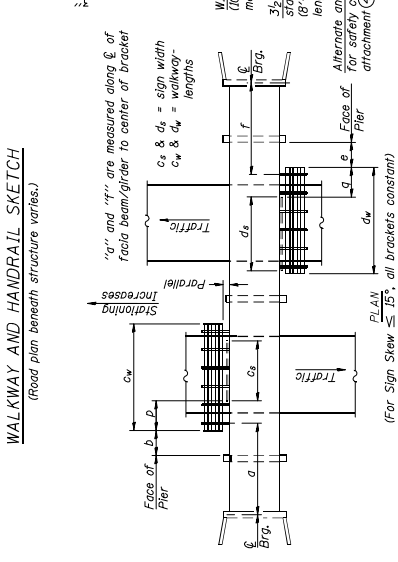
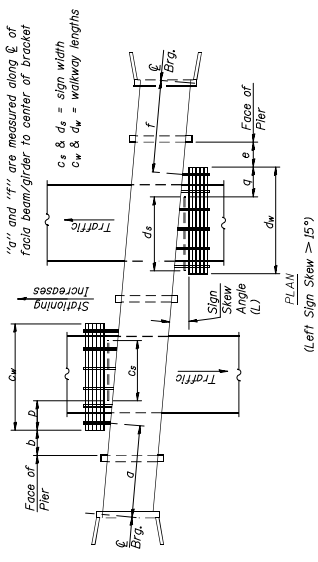
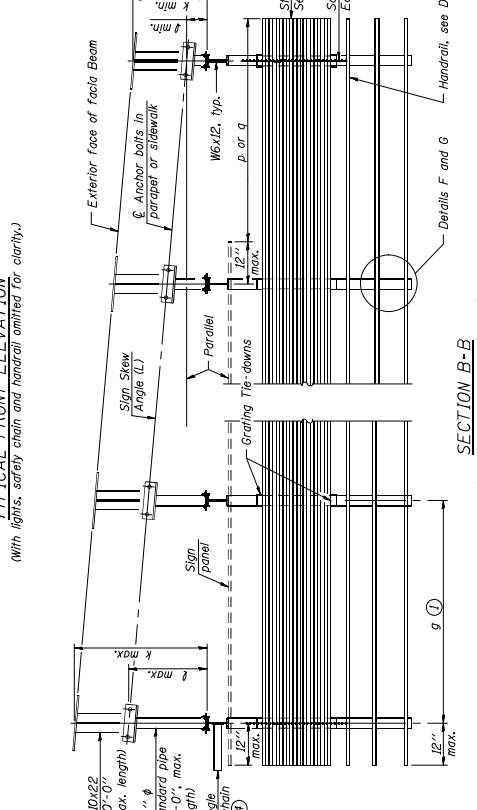
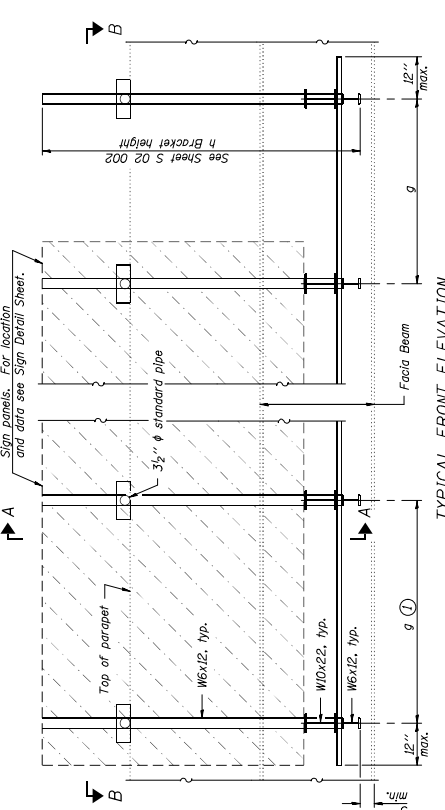
TOTAL BILL OF MATERIAL

③ OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED

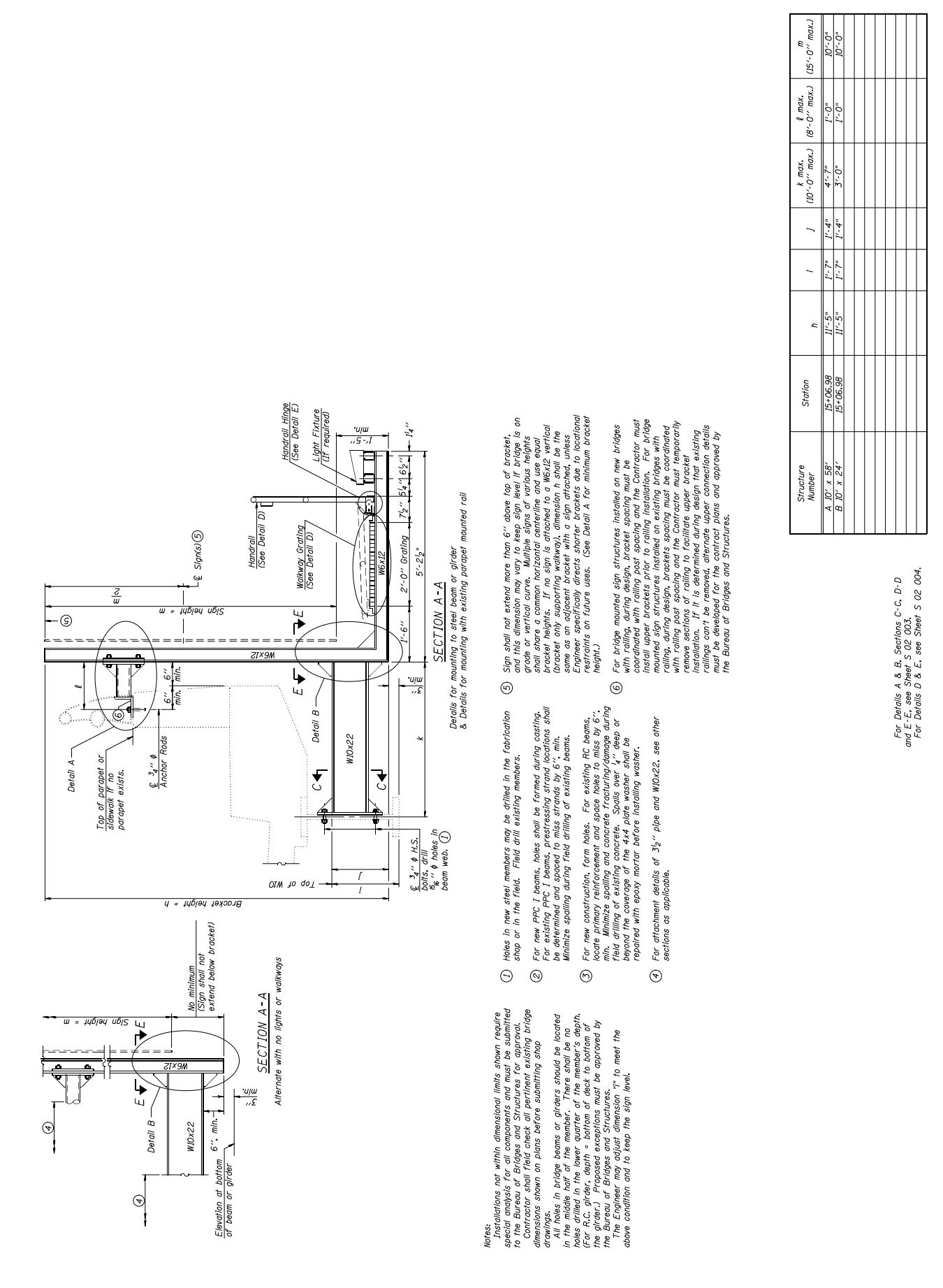
Foot

82

Dimensions a, b, e, f & g may vary as approved by the Engineer, see ①.
When $c_w \times c_s$ and/or $d_w \times d_s$, use alternate brackets without walkway supports where applicable, see ③.



| Structure Number | Sign Skew Angle (L) or (R) | Sign Skew Station | Bridge Structure Number | Contract Route Designation | a | b | c _s | c _w | d _s | d _w | e | f | g | No. of Brackets (Total) | Total Grating/Handr. Lengths (C _w + d _w) | |
|------------------|----------------------------|-------------------|-------------------------|----------------------------|-----|----|----------------|----------------|----------------|----------------|----|--------|----|-------------------------|---|-----|
| A | 10° x 58' | 0° | 15*06.98 | 016-6595 | 13' | -- | 58' | 58' | -- | -- | -- | 5'-9" | 11 | 0 | -- | 58' |
| B | 10° x 24' | 0° | 15*06.98 | 016-6595 | CDA | -- | -- | -- | 24' | 24' | -- | 15'-6" | 5 | 0 | -- | 24' |



APPROVED AS WORKING PLAN

| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME:

RECIRCULATION BRIDGE REPLACEMENT

| | |
|--------------|--|
| SHEET TITLE: | BRIDGE MOUNT SIGN STRUCTURES WALKWAY AND CONNECTION DETAILS |
| DESIGNED: | SEA |
| DRAWN: | SCS |
| CHECKER: | SEA |
| PROJECT NO.: | H3073, 18-00 |
| DATE: | 02/21/19 |
| SHEET NO.: | S 02 002 |
| REVISION: | |

| Structure Number | Station | h | i | J | k max. | ø max. | m |
|------------------|----------|-------|-------|-------|-------------|------------|-------------|
| A 10' x 56' | 15+06.98 | 1'-5" | 1'-7" | 1'-4" | 10'-0" max. | 8'-0" max. | 15'-0" max. |
| B 10' x 24' | 15+06.98 | 1'-5" | 1'-7" | 1'-4" | 4'-7" | 1'-0" | 10'-0" |

SECTION A-A
 Details for mounting to steel beam or girder & Details for mounting with existing parapet mounted rail

- Notes:**
 Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval. All dimensions shown on plans before submitting shop drawings.
- Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.
 - For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6", min. Minimize spalling during field drilling of existing beams.
 - For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6", min. Minimize spalling and concrete fracturing/damage during field drilling of existing beams. If holes in beams shall be repaired with epoxy mortar before installing washer.
 - For attachment details of 3/2" pipe and W10x22, see other sections as applicable.
 - Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level. Bridges is on parapet shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to local restraints on future uses. (See Detail A for minimum bracket height.)
 - For bridge mounted sign structures installed on new bridges with existing parapets, existing parapets shall be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation. For bridge mounted sign structures installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the parapet plans and approved by the Bureau of Bridges and Structures.
- For Details A & B, Sections C-C, D-D and E-E, see Sheet S 02 003.
 For Details D & E, see Sheet S 02 004.

H

G

F

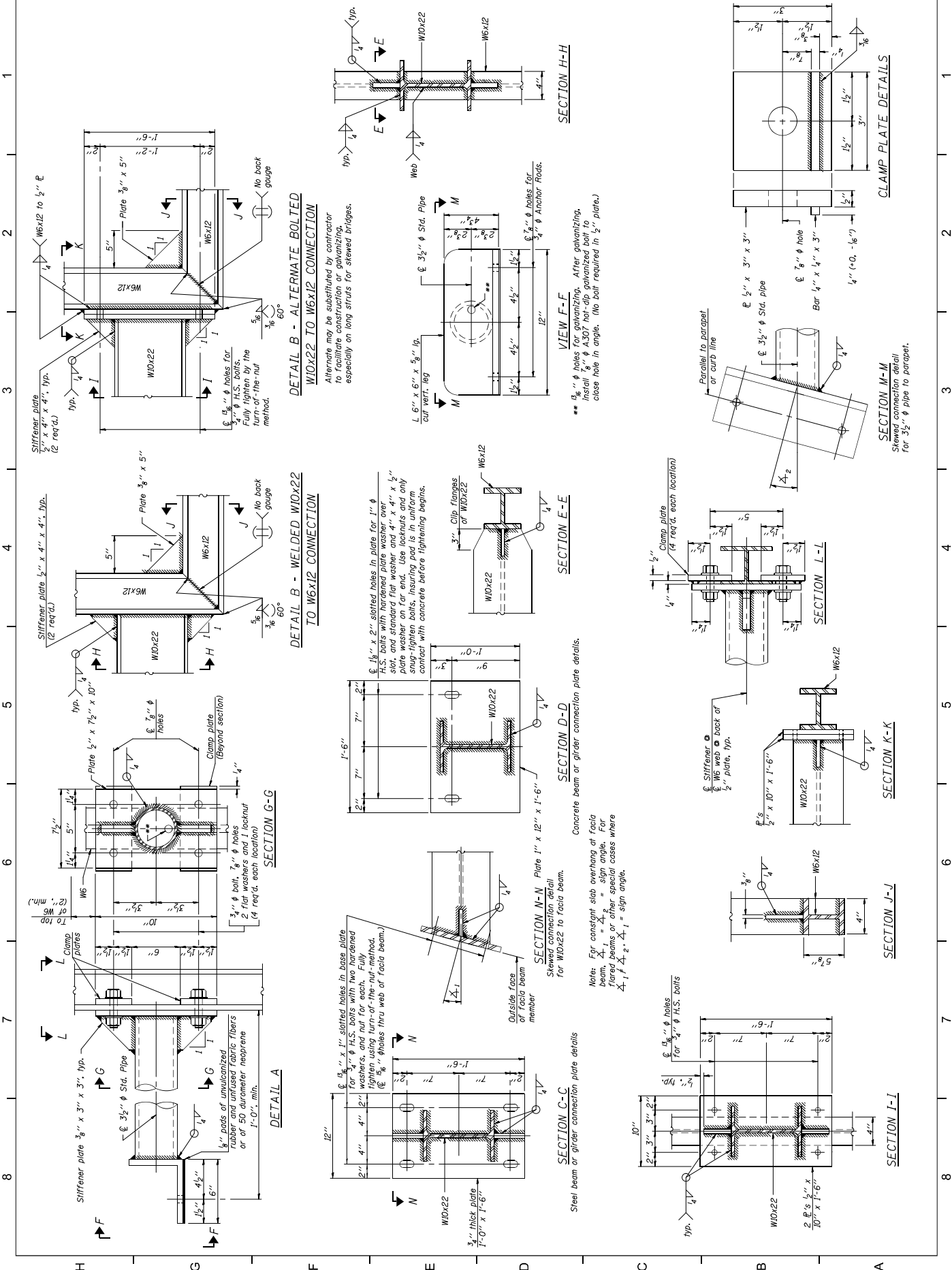
E

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DETAIL B - ALTERNATE BOLTED WIDx22 TO W6x12 CONNECTION
 Alternate may be substituted by contractor to facilitate construction or galvanizing, especially on long spans for skewed bridges.

DETAIL B - WELDED CONNECTION TO W6x12

SECTION G-G

DETAIL A

SECTION H-H

VIEW F-F

SECTION E-E

SECTION D-D

SECTION N-N

SECTION C-C

SECTION L-L

SECTION K-K

SECTION J-J

SECTION I-I

CLAMP PLATE DETAILS

SECTION M-M

1/8" ϕ holes for galvanizing. After galvanizing, install 5/8" ϕ A307 non-all galvanizing bolt to close hole in angle. (No bar required in 1/2 plate.)

Concrete beam or girder connection plate details.

Steel beam or girder connection plate details.

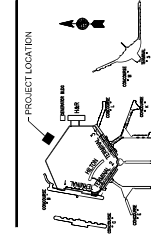
Note: For constant slab overhang of fascia beam, $\Delta_1 = \Delta_2 = \Delta_3 = \Delta_4 = \Delta_5 = \Delta_6 = \Delta_7 = \Delta_8 = \Delta_9 = \Delta_{10}$ = sign angle. For flared beams or other special cases where $\Delta_1 \neq \Delta_2, \Delta_3, \Delta_4, \Delta_5, \Delta_6, \Delta_7, \Delta_8, \Delta_9, \Delta_{10}$ = sign angle.

1/8" ϕ holes for 3/4" H.S. bolts

| | |
|-------------|-------------|
| PROJECT NO: | H3073.15-00 |
| DATE: | 02/21/19 |
| SHEET NO: | S 02 003 |
| REVISION: | |

| | |
|--------------------|---|
| RECURRICATION | |
| BRIDGE REPLACEMENT | |
| SHEET TITLE: | BRIDGE MOUNT SIGN STRUCTURES CONNECTION DETAILS |
| DESIGNED: | SEA |
| DRAWN: | SCS |
| CHECKER: | SEA |
| PROJECT NAME: | |

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| DATE: | |
| ISSUED FOR BID | 02/21/19 |
| REV. DATE | |
| DESCRIPTION | |
| PROJECT NAME: | |



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| ONE-LINE | POWER | LIGHTING | MISCELLANEOUS |
|---|--|--|---|
| <p>INCOMING LINE</p> <p>POLYPHASE TRANSFORMER</p> <p>POTENTIAL TRANSFORMER</p> <p>CURRENT TRANSFORMER</p> <p>GROUND</p> <p>AMMETER</p> <p>VOLTMETER</p> <p>POWER METER</p> <p>KEY INTERLOCK</p> <p>GROUND FAULT PROTECTIVE DEVICE</p> <p>SWITCH (VOLTAGE RATING AS INDICATED ON SHEET)</p> <p>MOTOR CIRCUIT PROTECTOR</p> <p>MAGNETIC MOTOR STARTER (WITH OVERLOAD (FWR))</p> <p>MAGNETIC REVERSING MOTOR STARTER (WITH OVERLOAD (FWR))</p> <p>THERMAL OVERLOAD</p> <p>TRANSFER SWITCH (RATING AS INDICATED IN SCHEDULE)</p> <p>GENERATOR</p> <p>BATTERY</p> <p>STRESSCONE</p> <p>FUSED SWITCH (VOLTAGE AS INDICATED)</p> <p>DRAWOUT FUSED SWITCH (VOLTAGE RATING AS INDICATED)</p> <p>CIRCUIT BREAKER (VOLTAGE AS INDICATED)</p> <p>DRAWOUT CIRCUIT BREAKER (VOLTAGE AS INDICATED)</p> <p>PROTECTIVE RELAY</p> <p>SURGE PROTECTIVE DEVICE NUMBER</p> <p>TRANSFORMER</p> <p>PANELBOARD</p> <p>CABLE AND CONDUIT TAG</p> <p>EQUIPMENT TAG</p> <p>CONTROL PANEL</p> | <p>RECEPTACLE</p> <p>QUADRUPEX RECEPTACLE</p> <p>QUADRUPEX RECEPTACLE ON UPS POWER</p> <p>SPECIAL PURPOSE OUTLET - LIGHTS AS SHOWN ON PLANS OR SPECIAL PURPOSE RECEPTACLE SCHEDULE</p> <p>CONDUIT</p> <p>WIRELESS CONDUIT</p> <p>LONG WIRE WITH CIRCLE # GROUND WIRE</p> <p>SHORT WIRE # PHASE WIRE AND/OR SWITCH LEG WIRE</p> <p>CONDUIT RUN EXPOSED</p> <p>CONDUIT CONCEALED IN CEILING OR WALLS</p> <p>CONDUIT CONCEALED IN OR UNDER FLOOR</p> <p>CONDUIT UP</p> <p>CONDUIT DOWN</p> <p>FLEXIBLE CONDUIT</p> <p>FINAL CONNECTION TO EQUIPMENT</p> <p>MOTORS</p> <p>MAGNETIC STARTER</p> <p>COMBINATION STARTER AND DISCONNECT SWITCH</p> <p>FUSE DISCONNECT SWITCH</p> <p>BREAKER DISCONNECT</p> <p>EMERGENCY POWER OFF PUSH BUTTON</p> <p>COMBINATION STARTER AND FUSED DISCONNECT SWITCH</p> <p>MOTOR</p> <p>VARIABLE FREQUENCY DRIVE</p> <p>WIRELESS CONDUIT</p> <p>TRANSFORMERS</p> <p>DIRTY TYPE TRANSFORMERS</p> <p>PANELS</p> <p>POWER DISTRIBUTION PANELBOARD</p> <p>LISTING NAME BOARD</p> <p>BOARD CIRCUIT PANELBOARD</p> <p>GENERAL</p> <p>CEILING MOUNTED JUNCTION BOX</p> <p>WALL MOUNTED JUNCTION BOX</p> <p>FLOOR MOUNTED JUNCTION BOX</p> <p>WALL MOUNTED PULL BOX</p> <p>CEILING MOUNTED PULL BOX</p> <p>TRANSFORMER</p> <p>CABLE TRAY</p> <p>BUSWAY</p> <p>HEAT TRACES/ SNOW MELT JUNCTION BOX</p> <p>PAVEMENT MOUNTED SNOW MELT SENSOR (TEMPERATURE AND MOISTURE)</p> <p>ROOF MOUNTED SNOW MELT SENSOR (TEMPERATURE AND MOISTURE)</p> <p>SNOW MELT CONTROLLER/CONTROLLER PANEL</p> <p>ELECTRICAL HAND HOLE</p> | <p>LIGHTS SYMBOLS</p> <p>LED UNDERPASS LIGHT FIXTURE</p> <p>SIGNAL LED LIGHT FIXTURE</p> <p>Lighting Controls Symbols</p> <p>PHOTOCELL</p> <p>SPECIAL SYSTEMS</p> <p>SECURITY</p> <p>CAMERA WITH MOUNTING HARDWARE</p> | <p>MISCELLANEOUS</p> <p>MECHANICAL EQUIPMENT DESIGNATION</p> <p>EQUIPMENT NUMBER</p> <p>(SEE MECHANICAL EQUIPMENT SCHEDULES FOR EQUIPMENT SPECIFICATIONS)</p> <p>TYPICAL ELECTRICAL DEVICE CIRCUIT NOTATION</p> <p>ELECTRICAL DEVICE</p> <p>SERVING PANEL NAME</p> <p>CIRCUIT NUMBER</p> <p>DEMOLITION PLAN SYMBOL MODIFIERS</p> <p>EXISTING TO REMAIN</p> <p>EXISTING TO BE REMOVED AND TURNED OVER TO OWNER OR ABANDONED</p> <p>EXISTING TO BE REMOVED AND RELOCATED</p> <p>EXISTING ITEM IN NEW LOCATION</p> |

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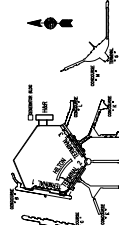
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| 02/21/19 | | ISSUED FOR BID |

PROJECT NAME:

REORIENTATION
BRIDGE REPLACEMENT

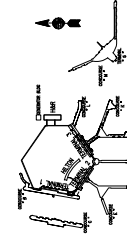
SHEET TITLE
ELECTRICAL SYMBOLS

DESIGNED: RP
DRAWN: RP
CHECKED: JR

PROJECT NO.: H3073-1500
DATE: 02/21/19

SHEET NO.
E 01 001

REVISION



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BRIDGE REPLACEMENT
BRIDGE REPLACEMENT

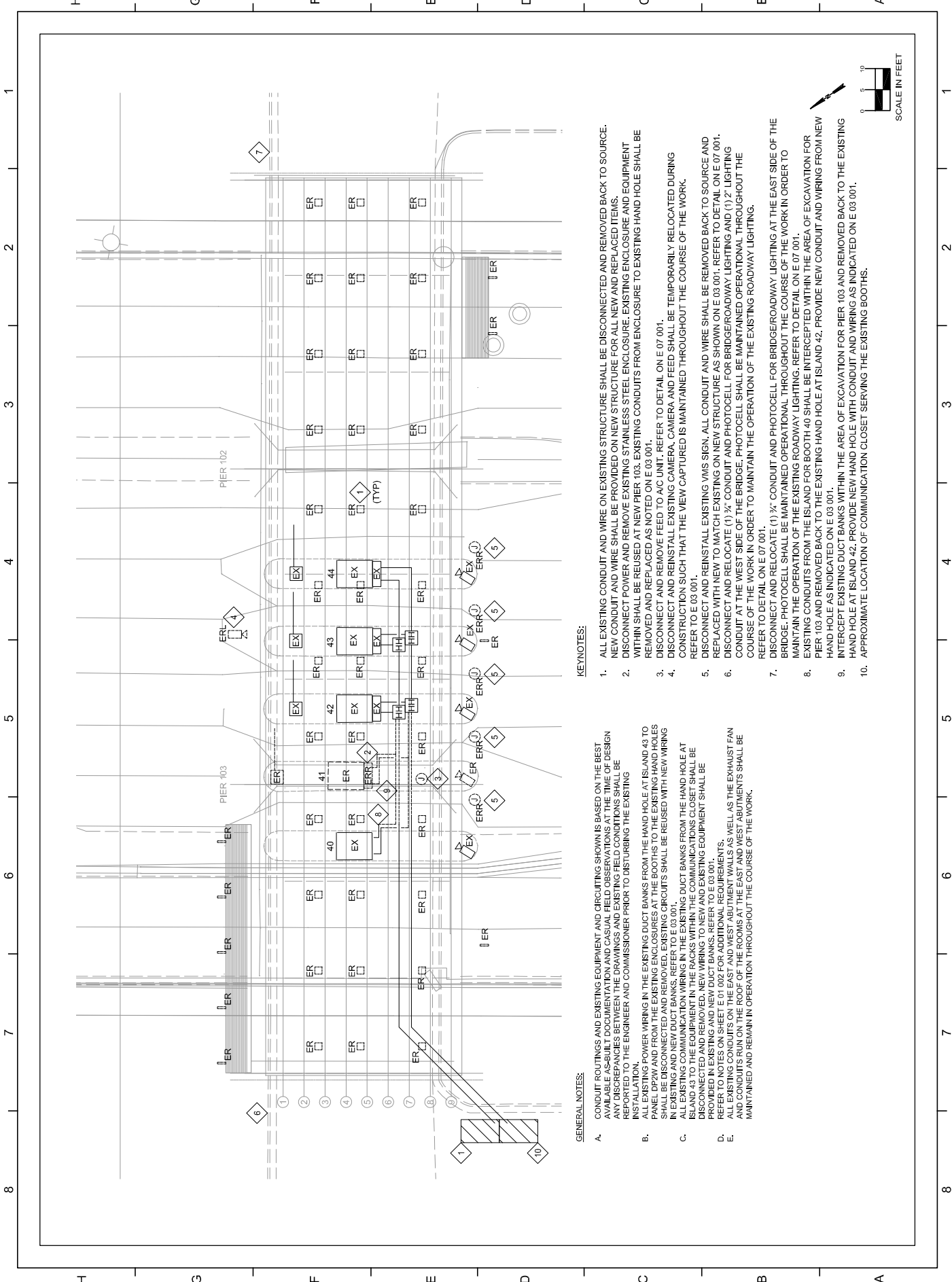
SHEET TITLE:
**ELECTRICAL
DEMOLITION PLAN**

DESIGNED BY: DR/AVR
CHECKED BY: JR

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO.:
E 01 003

REVISION:

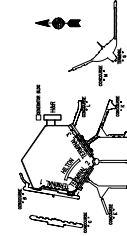


KEYNOTES:

1. ALL EXISTING CONDUIT AND WIRE ON EXISTING STRUCTURE SHALL BE DISCONNECTED AND REMOVED BACK TO SOURCE. NEW CONDUIT AND WIRE SHALL BE PROVIDED ON NEW STRUCTURE FOR ALL NEW AND REPLACED ITEMS.
2. DISCONNECT POWER AND REMOVE EXISTING STAINLESS STEEL ENCLOSURE, EXISTING ENCLOSURE AND EQUIPMENT WITHIN SHALL BE REUSED AT NEW PIER 103. EXISTING CONDUITS FROM ENCLOSURE TO EXISTING HAND HOLE SHALL BE REMOVED AND REPLACED AS NOTED ON E 03 001.
3. DISCONNECT AND REMOVE FEED TO A/C UNIT. REFER TO DETAIL ON E 07 001.
4. DISCONNECT AND REINSTALL EXISTING CAMERA, CAMERA AND FEED SHALL BE TEMPORARILY RELOCATED DURING CONSTRUCTION SUCH THAT THE VIEW CAPTURED IS MAINTAINED THROUGHOUT THE COURSE OF THE WORK. REFER TO E 03 001.
5. DISCONNECT AND REINSTALL EXISTING VMS SIGN. ALL CONDUIT AND WIRE SHALL BE REMOVED BACK TO SOURCE AND REPLACED WITH NEW TO MATCH EXISTING ON NEW STRUCTURE AS SHOWN ON E 03 001. REFER TO DETAIL ON E 07 001.
6. DISCONNECT AND RELOCATE (1) 3/4" CONDUIT AND PHOTOCELL FOR BRIDGE/ROADWAY LIGHTING AND (1) 2" LIGHTING CONDUIT AT THE WEST SIDE OF THE BRIDGE. PHOTOCELL SHALL BE MAINTAINED OPERATIONAL THROUGHOUT THE COURSE OF THE WORK IN ORDER TO MAINTAIN THE OPERATION OF THE EXISTING ROADWAY LIGHTING. REFER TO DETAIL ON E 07 001.
7. DISCONNECT AND RELOCATE (1) 3/4" CONDUIT AND PHOTOCELL FOR BRIDGE/ROADWAY LIGHTING AT THE EAST SIDE OF THE BRIDGE. PHOTOCELL SHALL BE MAINTAINED OPERATIONAL THROUGHOUT THE COURSE OF THE WORK IN ORDER TO MAINTAIN THE OPERATION OF THE EXISTING ROADWAY LIGHTING. REFER TO DETAIL ON E 07 001.
8. EXISTING CONDUITS FROM THE ISLAND FOR BOOTH 40 SHALL BE INTERCEPTED WITHIN THE AREA OF EXCAVATION FOR PIER 103 AND REMOVED BACK TO THE EXISTING HAND HOLE AT ISLAND 42. PROVIDE NEW CONDUIT AND WIRING FROM NEW HAND HOLE AS INDICATED ON E 03 001.
9. INTERCEPT EXISTING DUCT BANKS WITHIN THE AREA OF EXCAVATION FOR PIER 103 AND REMOVED BACK TO THE EXISTING HAND HOLE AT ISLAND 42. PROVIDE NEW HAND HOLE WITH CONDUIT AND WIRING AS INDICATED ON E 03 001.
10. APPROXIMATE LOCATION OF COMMUNICATION CLOSET SERVING THE EXISTING BOOTHS.

GENERAL NOTES:

- A. CONDUIT ROUTINGS AND EXISTING EQUIPMENT AND CIRCUITING SHOWN IS BASED ON THE BEST AVAILABLE INFORMATION. THE DESIGNER HAS CONDUCTED VISUAL FIELD DESIGN AND IDENTIFIED ANY DISCREPANCIES BETWEEN THE DRAWINGS AND EXISTING FIELD CONDITIONS. SHALL BE REPORTED TO THE ENGINEER AND COMMISSIONER PRIOR TO DISTURBING THE EXISTING INSTALLATION.
- B. ALL EXISTING POWER WIRING IN THE EXISTING DUCT BANKS FROM THE HAND HOLE AT ISLAND 43 TO ISLAND 42 AND FROM THE EXISTING ENCLOSURES AT THE BOOTHS TO THE EXISTING HAND HOLES IN EXISTING AND NEW DUCT BANKS. REFER TO E 03 001. EXISTING CIRCUITS SHALL BE REUSED WITH NEW WIRING IN EXISTING AND NEW DUCT BANKS. REFER TO E 03 001.
- C. ALL EXISTING POWER WIRING IN THE EXISTING DUCT BANKS FROM THE HAND HOLE AT ISLAND 43 TO THE EQUIPMENT IN THE PACKS WITHIN THE COMMUNICATIONS CLOSET SHALL BE DISCONNECTED AND REMOVED. NEW WIRING TO NEW AND EXISTING EQUIPMENT SHALL BE PROVIDED IN EXISTING AND NEW DUCT BANKS. REFER TO E 03 001.
- D. REFER TO NOTES ON SHEET E 01 002 FOR ADDITIONAL REQUIREMENTS.
- E. ALL EXISTING CONDUITS ON THE ROOF OF THE ROOMS AT THE EAST AND WEST ABUTMENT WALLS AS WELL AS THE EXHAUST FAN AND CONDUITS RUN ON THE ROOF OF THE ROOMS AT THE EAST AND WEST ABUTMENTS SHALL BE MAINTAINED AND REMAIN IN OPERATION THROUGHOUT THE COURSE OF THE WORK.



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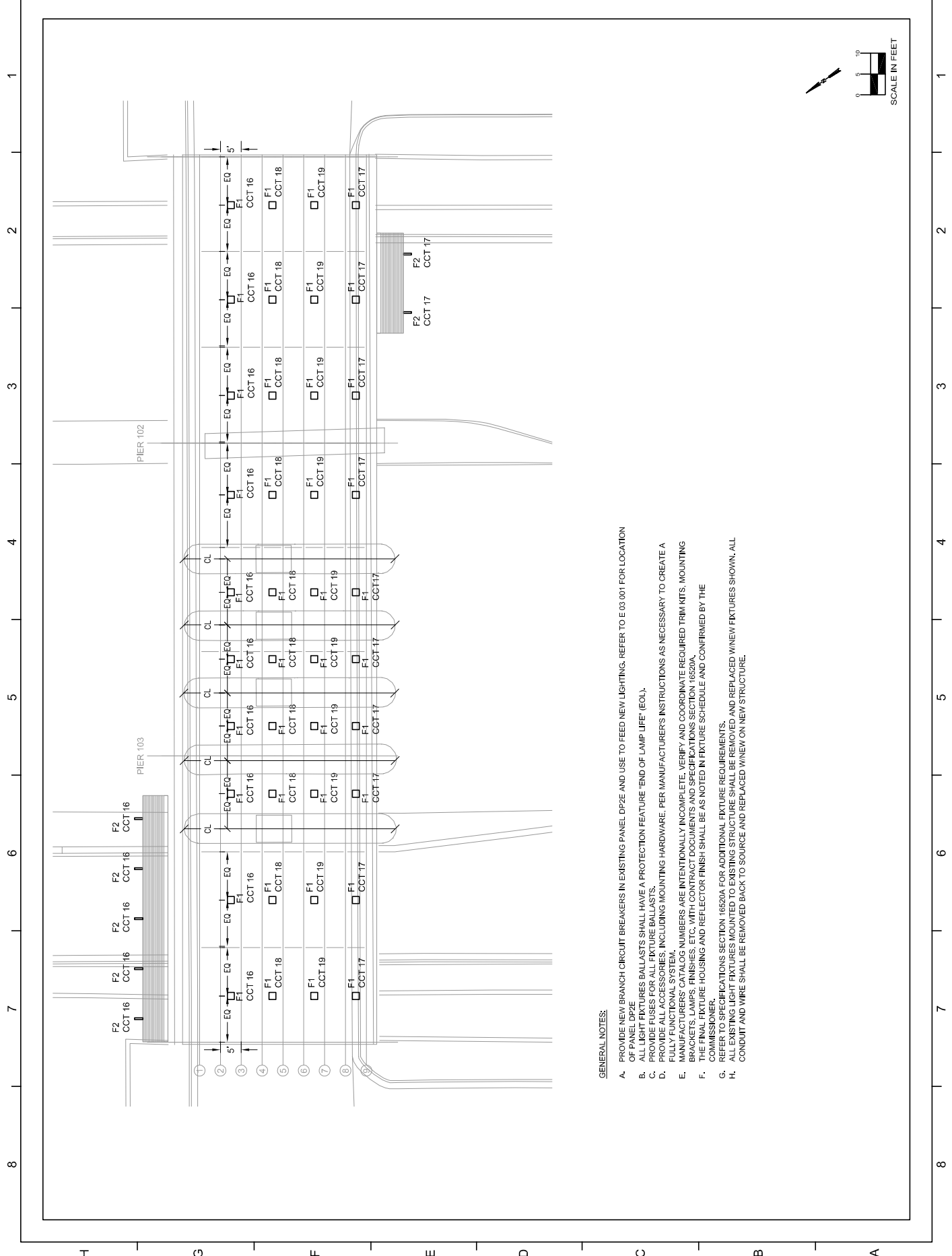
B RECIRCULATION
BRIDGE REPLACEMENT

SHEET TITLE:
LIGHTING LAYOUT

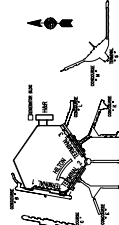
DESIGNED BY: DR. JAMES EMANUEL
CHECKED BY: JR

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO.:
E 02 001
REVISION



- GENERAL NOTES:**
- PROVIDE NEW BRANCH CIRCUIT BREAKERS IN EXISTING PANEL DP2E AND USE TO FEED NEW LIGHTING. REFER TO E 03 001 FOR LOCATION OF PANEL DP2E
 - ALL LIGHT FIXTURES BALLASTS SHALL HAVE A PROTECTION FEATURE "END OF LAMP LIFE" (EOL).
 - PROVIDE FUSES FOR ALL FIXTURE BALLASTS.
 - PROVIDE ALL ACCESSORIES, INCLUDING MOUNTING HARDWARE, PER MANUFACTURER'S INSTRUCTIONS AS NECESSARY TO CREATE A FULLY FUNCTIONAL SYSTEM.
 - MANUFACTURER'S CATALOG NUMBERS ARE INTENTIONALLY INCOMPLETE. VERIFY AND COORDINATE REQUIRED TRIM KITS, MOUNTING BRACKETS, LAMP FINISHES, ETC. WITH CONTRACT DOCUMENTS AND SPECIFICATIONS SECTION 16520A.
 - THE FINAL FIXTURE HOUSING AND REFLECTOR FINISH SHALL BE AS NOTED IN FIXTURE SCHEDULE AND CONFIRMED BY THE MANUFACTURER.
 - CONTRACT SPECIFICATIONS SECTION 16520A FOR ADDITIONAL FIXTURE REQUIREMENTS.
 - ALL EXISTING LIGHT FIXTURES MOUNTED TO EXISTING STRUCTURE SHALL BE REMOVED AND REPLACED WITH NEW FIXTURES SHOWN. ALL CONDUIT AND WIRE SHALL BE REMOVED BACK TO SOURCE AND REPLACED WITH NEW ON NEW STRUCTURE.



APPROVED AS WORKING PLAN
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| | | PROJECT NAME: |

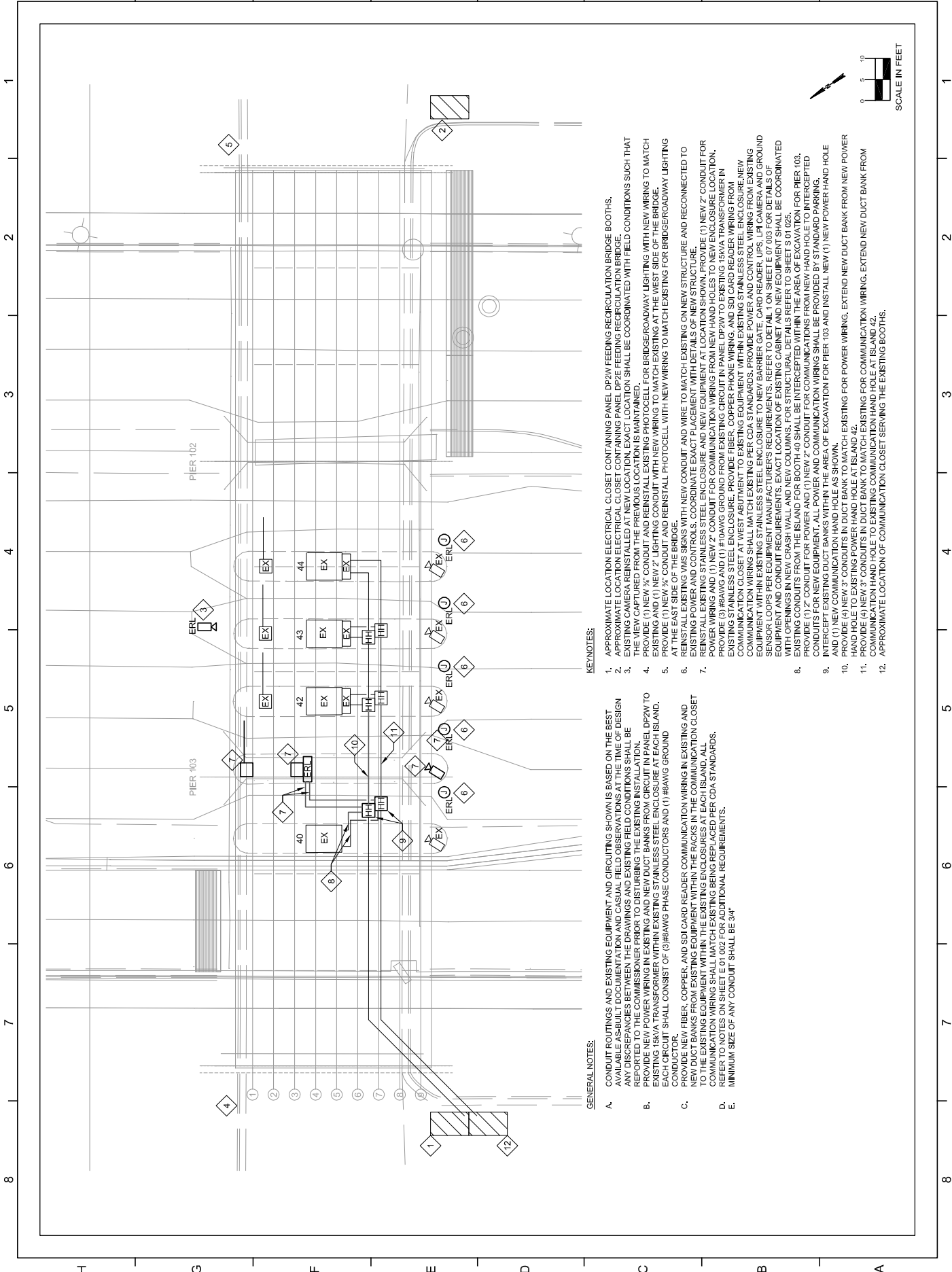
RECURCULATION
BRIDGE REPLACEMENT

**ELECTRICAL
POWER PLAN**

DESIGNED BY: DR/AVN JR
CHECKED BY: JR

PROJECT NO.: H3073.1500
DATE: 02/21/19

SHEET NO. **E 03 001** REVISION



KEYNOTES:

- APPROXIMATE LOCATION ELECTRICAL CLOSET CONTAINING PANEL DP2W FEEDING RECURCULATION BRIDGE BOOTHS.
- EXISTING CAMERA REINSTALLED AT NEW LOCATION. EXACT LOCATION SHALL BE COORDINATED WITH FIELD CONDITIONS SUCH THAT THE VIEW CAPTURED FROM THE PREVIOUS LOCATION IS MAINTAINED.
- PROVIDE (1) NEW 1/2" CONDUIT AND REINSTALL EXISTING PHOTOCELL FOR BRIDGE/ROADWAY LIGHTING WITH NEW WIRING TO MATCH EXISTING AND (1) NEW 1/2" LIGHTING CONDUIT WITH NEW WIRING TO MATCH EXISTING AT THE WEST SIDE OF THE BRIDGE.
- PROVIDE (1) NEW 1/2" CONDUIT AND REINSTALL PHOTOCELL WITH NEW WIRING TO MATCH EXISTING FOR BRIDGE/ROADWAY LIGHTING AT THE EAST SIDE OF THE BRIDGE.
- REINSTALL EXISTING VMS SIGNS WITH NEW CONDUIT AND WIRE TO MATCH EXISTING ON NEW STRUCTURE AND RECONNECTED TO EXISTING WIRING.
- REINSTALL EXISTING STAINLESS STEEL ENCLOSURE AND NEW EQUIPMENT AT LOCATION SHOWN. PROVIDE (1) NEW 2" CONDUIT FOR POWER WIRING AND (1) NEW 2" CONDUIT FOR COMMUNICATION WIRING FROM NEW HAND HOLES TO NEW ENCLOSURE LOCATION.
- PROVIDE (3) #8AWG AND (1) #10AWG GROUND FROM EXISTING CIRCUIT IN PANEL DP2W TO EXISTING 15KVA TRANSFORMER IN EXISTING STAINLESS STEEL ENCLOSURE. PROVIDE FIBER, COPPER PHONE WIRING, AND SDI CARD READER WIRING FROM COMMUNICATION CLOSET AT WEST ABUTMENT TO EXISTING EQUIPMENT WITHIN EXISTING STAINLESS STEEL ENCLOSURE. NEW COMMUNICATION WIRING SHALL MATCH EXISTING PER CDA STANDARDS. PROVIDE POWER AND CONTROL WIRING FROM EXISTING EQUIPMENT WITHIN EXISTING STAINLESS STEEL ENCLOSURE TO NEW BARRIER GATE, CARD READER, UPS, LPT CAMERA AND GROUND EQUIPMENT AND CONDUIT REQUIREMENTS. EXACT LOCATION OF EXISTING CABINET AND NEW EQUIPMENT SHALL BE COORDINATED WITH OPENINGS IN NEW CRASH WALL AND NEW COLUMNS. FOR STRUCTURAL DETAILS REFER TO SHEET S 01 025.
- EXISTING CONDUITS FROM THE ISLAND FOR BOOTH 40 SHALL BE INTERCEPTED WITHIN THE AREA OF EXCAVATION FOR PIER 103. PROVIDE (1) 2" CONDUIT FOR POWER AND (1) NEW 2" CONDUIT FOR COMMUNICATIONS FROM NEW HAND HOLE TO INTERCEPTED CONDUITS FOR NEW EQUIPMENT. ALL POWER AND COMMUNICATION WIRING SHALL BE PROVIDED BY STANDARD PARKING.
- INTERCEPT EXISTING DUCT BANKS WITHIN THE AREA OF EXCAVATION FOR PIER 103 AND INSTALL NEW (1) NEW POWER HAND HOLE AND (1) NEW COMMUNICATION HAND HOLE AS SHOWN.
- PROVIDE (1) NEW 2" CONDUIT FROM EXISTING POWER HAND HOLE AT ISLAND 42.
- PROVIDE (4) NEW 3" CONDUITS IN DUCT BANK TO MATCH EXISTING FOR COMMUNICATION WIRING. EXTEND NEW DUCT BANK FROM COMMUNICATION HAND HOLE TO EXISTING COMMUNICATION CLOSET SERVING THE EXISTING BOOTHS.
- APPROXIMATE LOCATION OF COMMUNICATION CLOSET SERVING THE EXISTING BOOTHS.

GENERAL NOTES:

- CONDUIT ROUTINGS AND EXISTING EQUIPMENT AND CIRCUITING SHOWN IS BASED ON THE BEST AVAILABLE INFORMATION. THE DESIGNER HAS CONDUCTED VISUAL DESIGN CHECKS AND FIELD SURVEYS. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND EXISTING FIELD CONDITIONS SHALL BE REPORTED TO THE COMMISSIONER PRIOR TO DISTURBING THE EXISTING INSTALLATION.
- PROVIDE NEW POWER WIRING IN EXISTING AND NEW DUCT BANKS FROM CIRCUIT IN PANEL DP2W TO EXISTING 15KVA TRANSFORMER WITHIN EXISTING STAINLESS STEEL ENCLOSURE AT EACH ISLAND. EACH CIRCUIT SHALL CONSIST OF (3) #8AWG PHASE CONDUCTORS AND (1) #8AWG GROUND CONDUCTOR.
- PROVIDE NEW FIBER, COPPER, AND SDI CARD READER COMMUNICATION WIRING IN EXISTING AND NEW DUCT BANKS FROM COMMUNICATION CLOSET SERVING THE EXISTING BOOTHS AT EACH ISLAND. ALL COMMUNICATION WIRING SHALL MATCH EXISTING BEING REPLACED PER CDA STANDARDS. REFER TO NOTES ON SHEET E 01 002 FOR ADDITIONAL REQUIREMENTS.
- MINIMUM SIZE OF ANY CONDUIT SHALL BE 3/4"

PANEL: DP2E

NEW OR EXISTING: EXISTING ELECTRICAL ROOM
 LOCATION: SURFACE
 MAIN PANEL: NEAT
 ENCLOSURE: NEAT
 ENTRANCE: TOP

VOLTAGE/PHASE: 277/480/3Ø 4W
 MAIN BUS: MDA
 FEED FROM: EASTAYS
 SUB-FEED TO: NONE

NEUTRAL BUS: 100%
 GROUND BUS: YES-BOLTED
 ISOLATED: YES
 FULLY RATED: A/C 85.00
 TVSS: NONE

| LOAD DESCRIPTION | LOAD TYPE | NOTE | VOLT-AMPS | | | BKR/POLE | OCT | LOAD TYPE | LOAD DESCRIPTION |
|-------------------------|-----------|------|-----------|----|---|----------|-----|-----------|--------------------------|
| | | | A | B | C | | | | |
| EXISTING LOAD TO REMAIN | - | 9 | | | | 20/1 | 2 | 9 | EXISTING LOAD TO REMAIN |
| EXISTING LOAD TO REMAIN | - | 9 | | | | 20/1 | 4 | 9 | EXISTING LOAD TO REMAIN |
| EXISTING LOAD TO REMAIN | - | 9 | | | | 20/1 | 6 | 9 | EXISTING LOAD TO REMAIN |
| EXISTING LOAD TO REMAIN | - | 9 | | | | 20/1 | 8 | 9 | EXISTING LOAD TO REMAIN |
| EXISTING LOAD TO REMAIN | - | 9 | | | | 20/1 | 10 | 9 | EXISTING LOAD TO REMAIN |
| EXISTING LOAD TO REMAIN | - | 9 | | | | 20/1 | 12 | 9 | EXISTING LOAD TO REMAIN |
| EXISTING LOAD TO REMAIN | - | 9 | | | | 20/1 | 14 | 9 | EXISTING LOAD TO REMAIN |
| EXISTING LOAD TO REMAIN | - | 9 | | | | 20/1 | 16 | 9 | EXISTING LOAD TO REMAIN |
| UNDERPASS ASSIGN LG | L | 10 | 1,270 | 17 | - | 20/1 | 18 | 1,525 | 10. L UNDERPASS LIGHTING |
| UNDERPASS LIGHTING | L | 10 | 1,100 | 19 | - | 20/1 | 20 | 1,100 | 10. L UNDERPASS LIGHTING |
| SPACE | X | - | - | - | - | 21 | - | - | SPACE |
| SPACE | X | - | - | - | - | 22 | - | - | SPACE |
| SPACE | X | - | - | - | - | 23 | - | - | SPACE |
| SPACE | X | - | - | - | - | 24 | - | - | SPACE |
| SPACE | X | - | - | - | - | 25 | - | - | SPACE |
| SPACE | X | - | - | - | - | 26 | - | - | SPACE |
| SPACE | X | - | - | - | - | 27 | - | - | SPACE |
| SPACE | X | - | - | - | - | 28 | - | - | SPACE |
| SPACE | X | - | - | - | - | 29 | - | - | SPACE |
| SPACE | X | - | - | - | - | 30 | - | - | SPACE |
| SPACE | X | - | - | - | - | 31 | - | - | SPACE |
| SPACE | X | - | - | - | - | 32 | - | - | SPACE |
| SPACE | X | - | - | - | - | 33 | - | - | SPACE |
| SPACE | X | - | - | - | - | 34 | - | - | SPACE |
| SPACE | X | - | - | - | - | 35 | - | - | SPACE |
| SPACE | X | - | - | - | - | 36 | - | - | SPACE |
| SPACE | X | - | - | - | - | 37 | - | - | SPACE |
| SPACE | X | - | - | - | - | 38 | - | - | SPACE |
| SPACE | X | - | - | - | - | 39 | - | - | SPACE |
| SPACE | X | - | - | - | - | 40 | - | - | SPACE |
| SPACE | X | - | - | - | - | 41 | - | - | SPACE |
| SPACE | X | - | - | - | - | 42 | - | - | SPACE |

CONNECTED PHASE LOADS
 Type Description
 Total Amps = 4.65
 Total VA = 1,525 VA
 Total OC = 2,370 VA

TYPE CODES
 R - Receptacle (R)
 M - Motor (M)
 H - Heating (H)
 F - Fan (F)
 P - Pump (P)
 S - Space (S)
 X - Other (X)
 L - Lighting (L)
 Total Amps = 6.0

BREAKER NOTES

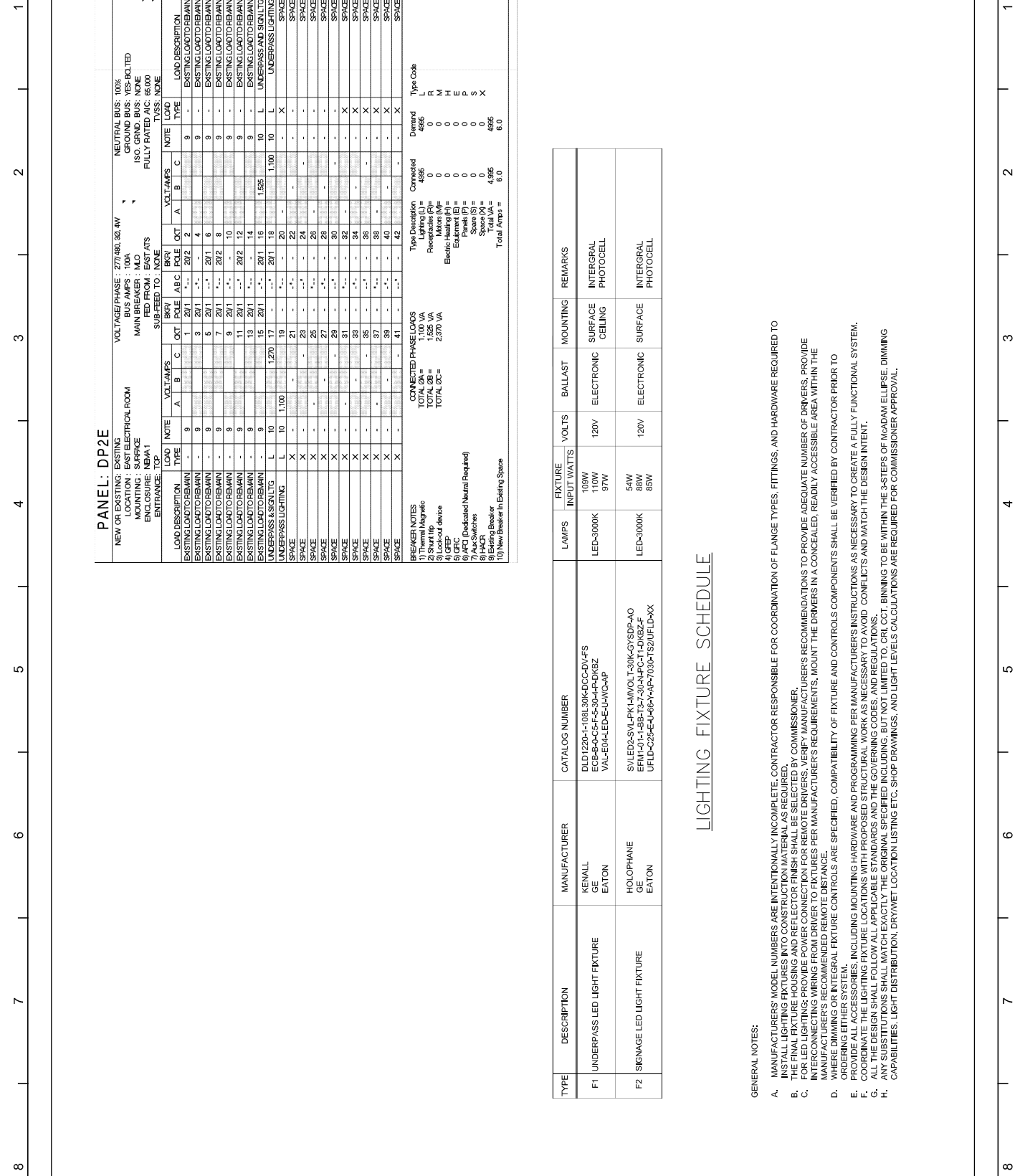
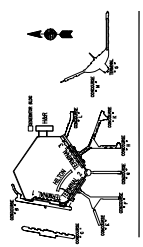
- 1) Magnetic
- 2) Start-Up
- 3) Lock-out device
- 4) GFP
- 5) GFP
- 6) GFP (Dedicated Neutral Required)
- 7) Air Switches
- 8) HACR
- 9) Energy Breaker
- 10) New Breaker in Existing Space

| TYPE | DESCRIPTION | MANUFACTURER | CATALOG NUMBER | LAMPS | FIXTURE INPUT WATTS | VOLTS | BALLAST | MOUNTING | REMARKS |
|------|-----------------------------|--------------------------|--|----------------------------------|---------------------|------------|--------------------|------------------------|---------|
| F1 | UNDERPASS LED LIGHT FIXTURE | KERMAL GE EATON | DLD1220-1-108L30K-DCC-DV-FS ECB-P40-C5-F-5-30-H-P-DK6Z VAL-EO4-LEDE-U-WQ4P | LED-3000K 108W 110W 97W | 120V | ELECTRONIC | SURFACE CEILING | INTERGRAL PHOTOCELL | |
| F2 | SIGNAGE LED LIGHT FIXTURE | HOLOPHANE GE EATON | S/LED2-S/L-PK1-M/VOLT-30K-GYSDP-AO EFNH-01-48B-T3-30APR-CT-1-DK6ZF UFLD-C25-EU-66-4-AP-703D-1S20UFLD-X | LED-3000K 54W 68W 65W | 120V | ELECTRONIC | SURFACE | INTERGRAL PHOTOCELL | |

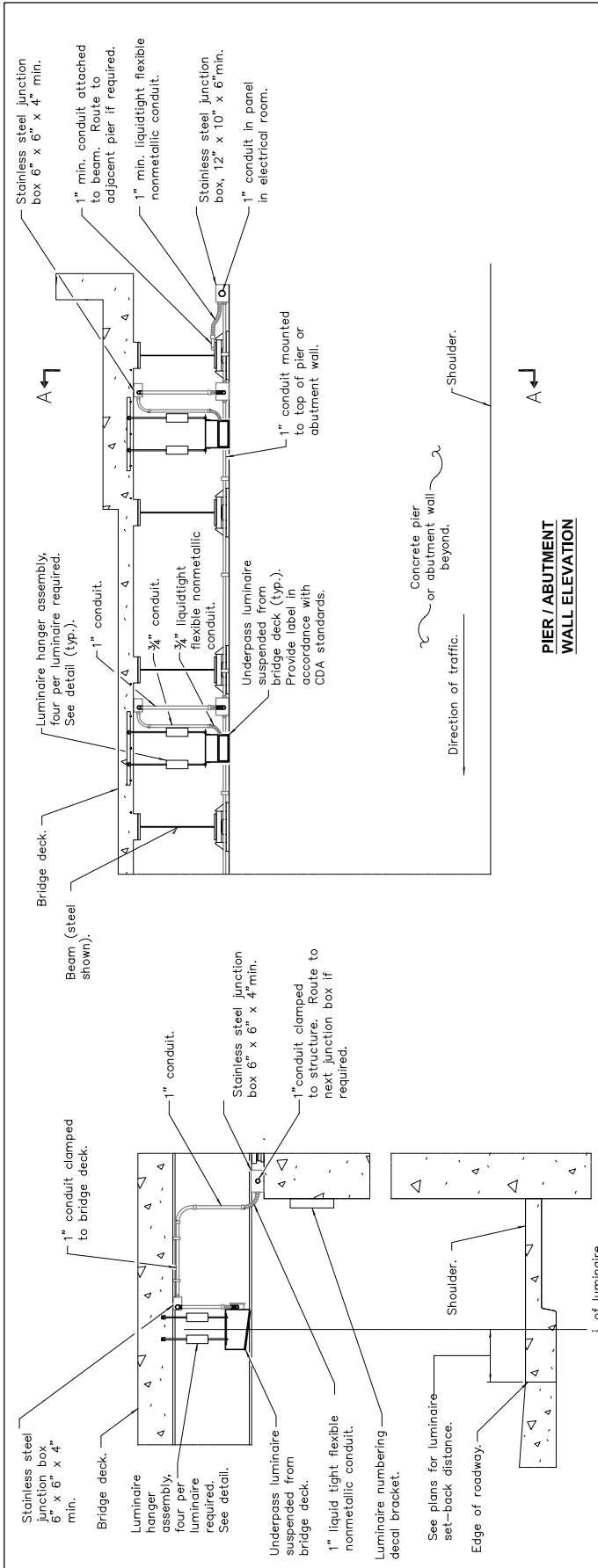
LIGHTING FIXTURE SCHEDULE

GENERAL NOTES:

- MANUFACTURERS' MODEL NUMBERS ARE INTENTIONALLY INCOMPLETE. CONTRACTOR RESPONSIBLE FOR COORDINATION OF FLANGE TYPES, FITTINGS, AND HARDWARE REQUIRED TO INSTALL LIGHTING FIXTURES INTO CONSTRUCTION MATERIAL AS REQUIRED.
- THE FINAL LIGHTING HOUSING AND REFLECTOR FINISH SHALL BE SELECTED BY COMMISSIONER.
- FOR LED LIGHTING: PROVIDE POWER CONNECTION FOR REMOTE DRIVERS. VERIFY MANUFACTURER'S RECOMMENDATIONS TO PROVIDE ADEQUATE NUMBER OF DRIVERS. PROVIDE INTERCONNECTING WIRING FROM DRIVER TO FIXTURES PER MANUFACTURER'S REQUIREMENTS. MOUNT THE DRIVERS IN A CONCEALED, READILY ACCESSIBLE AREA WITHIN THE MANUFACTURER'S RECOMMENDED REMOTE DISTANCE.
- WHERE DIMMING OR INTEGRAL FIXTURE CONTROLS ARE SPECIFIED, COMPATIBILITY OF FIXTURE AND CONTROLS COMPONENTS SHALL BE VERIFIED BY CONTRACTOR PRIOR TO ORDERING EITHER SYSTEM.
- COORDINATE THE LIGHTING SYSTEM, INCLUDING MOUNTING HARDWARE AND PROGRAMMING PER MANUFACTURER'S INSTRUCTIONS AS NECESSARY TO CREATE A FULLY FUNCTIONAL SYSTEM.
- COORDINATE THE LIGHTING FIXTURE LOCATIONS WITH PROPOSED STRUCTURAL WORK AS NECESSARY TO AVOID CONFLICTS AND MATCH THE DESIGN INTENT.
- ALL THE DESIGN SHALL FOLLOW ALL APPLICABLE STANDARDS AND THE GOVERNING CODES AND REGULATIONS.
- ANY SUBSTITUTIONS SHALL MATCH EXACTLY THE ORIGINAL SPECIFIED INCLUDING, BUT NOT LIMITED TO, CRT, CCT, BINNING TO BE WITHIN THE 3-STEPS OF MCDAM ELLIPSE, DIMMING CAPABILITIES, LIGHT DISTRIBUTION, DRYWET LOCATION LISTING ETC. SHOP DRAWINGS, AND LIGHT LEVELS CALCULATIONS ARE REQUIRED FOR COMMISSIONER APPROVAL.

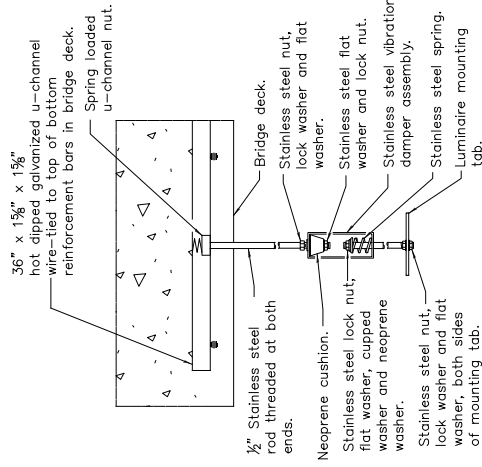


1 2 3 4 5 6 7 8



PIER / ABUTMENT WALL ELEVATION

SECTION A-A



LUMINAIRE HANGER ASSEMBLY DETAIL

GENERAL NOTES

1. SEE SHEET E 02 001 FOR UNDERPASS LUMINAIRE LOCATIONS. UNDERPASS LUMINAIRES SHALL BE CENTERED BETWEEN BEAMS UNLESS OTHERWISE DIRECTED BY THE COMMISSIONER.
2. OPTICS OF UNDERPASS LUMINAIRES SHALL BE INSTALLED 1" ABOVE THE BOTTOM OF THE BEAMS WITH NO PARTS OF THE LUMINAIRE OR ATTACHED CONDUIT BELOW THE BEAMS.
3. STAINLESS STEEL CONDUIT SHALL BE USED BENEATH ANY OPENINGS IN THE BRIDGE DECK.
4. BRANCH CIRCUITS TO LUMINAIRES SHOWN ROUTED FROM UNDERGROUND. BRANCH CIRCUITS MAY ALSO BE ROUTED FROM BRIDGE PARAPET ABOVE.

APPROVED AS WORKING PLAN

011

| REV | DATE | ISSUED FOR | DESCRIPTION |
|----------|------|------------|-------------|
| 02/27/19 | | | |

PROJECT NAME:

REINFORCEMENT
BRIDGE REPLACEMENT

SHEET TITLE
**ELECTRICAL
DETAILS**

DESIGNED: RP
DRAWN: RP
CHECKED: JR

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO. REVISION

E 07 002

1 2 3 4 5 6 7 8



APPROVED AS WORKING PLAN
0/1

| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/21/19 | | ISSUED FOR BID |
| | | PROJECT NAME: |

REORIENTATION
BRIDGE REPLACEMENT

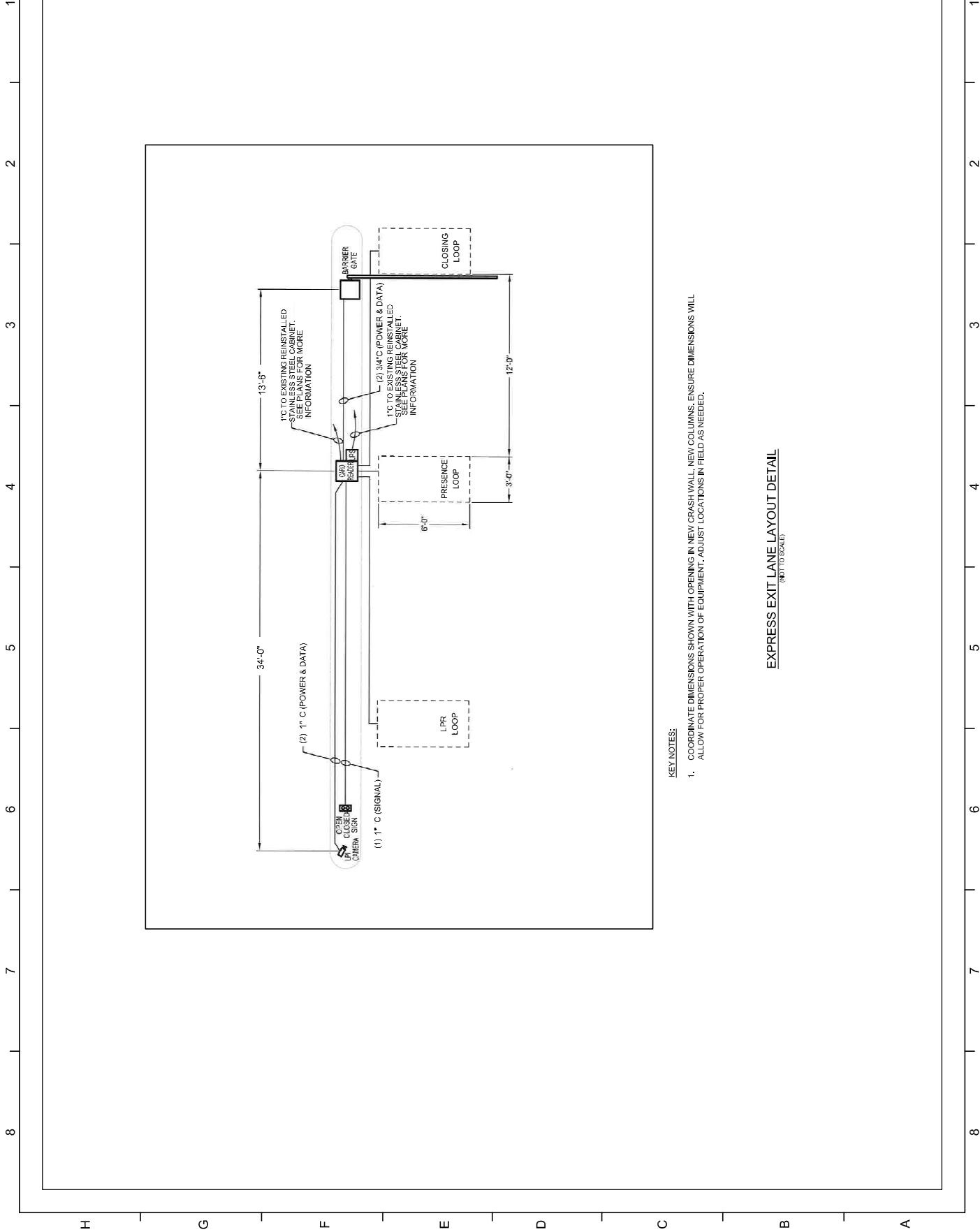
SHEET TITLE
**ELECTRICAL
DETAILS**

DESIGNED BY: RP
DRAWN BY: RP
CHECKED BY: JR

PROJECT NO.: H3073.15-00
DATE: 02/21/19

SHEET NO. REVISION

E 07 003



KEY NOTES:

- COORDINATE DIMENSIONS SHOWN WITH OPENING IN NEW CRASH WALL, NEW COLUMNS, ENSURE DIMENSIONS WILL ALLOW FOR PROPER OPERATION OF EQUIPMENT. ADJUST LOCATIONS IN FIELD AS NEEDED.

EXPRESS EXIT LANE LAYOUT DETAIL
(NOT TO SCALE)

H

G

F

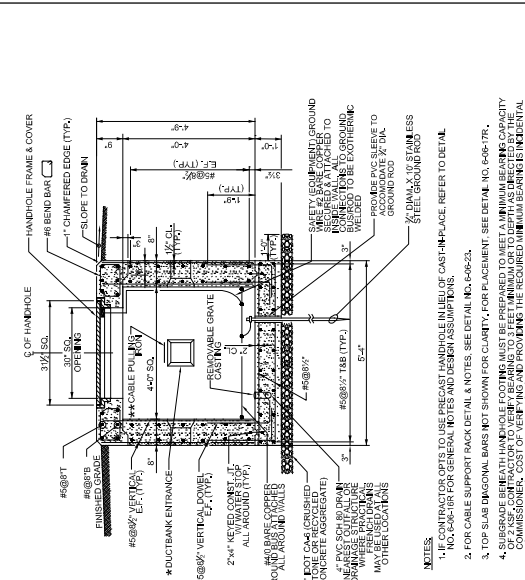
E

D

C

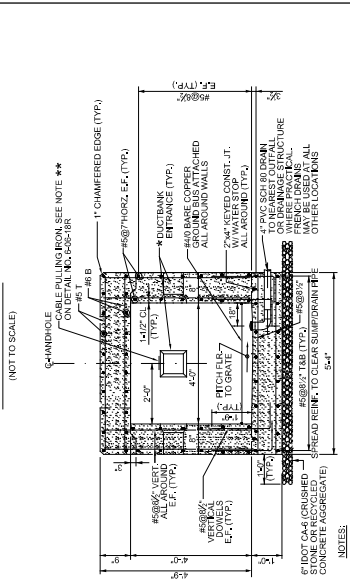
B

A



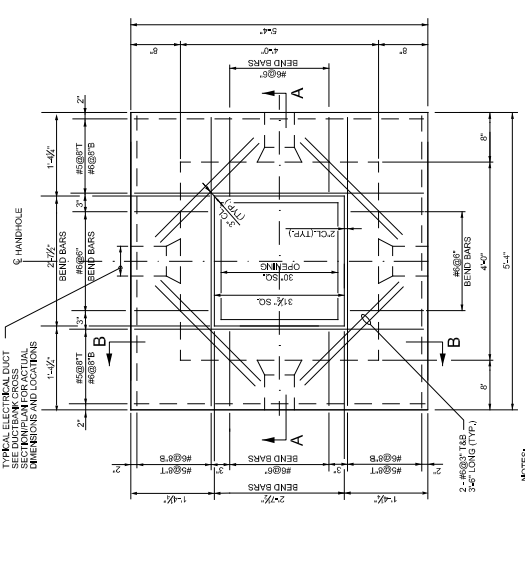
- NOTES:**
1. IF CONTRACTOR OPTS TO USE PRECAST HANDHOLE IN LIEU OF CAST-IN-PLACE, REFER TO DETAIL NO. 646-1R.
 2. FOR CABLE SUPPORT RACK DETAIL & NOTES, SEE DETAIL NO. 646-2A.
 3. TOP SLAB DIAGONAL BARS NOT SHOWN FOR CLARITY. SEE DETAIL NO. 646-1R.
 4. SUBGRADE BENEATH HANDHOLE FOOTINGS MUST BE PREPARED TO MEET A MINIMUM BEARING CAPACITY OF 2,000 PSF. CONTRACTOR TO VERIFY BEARING AND PROVIDE THE REQUIRED MINIMUM BEARING IN INCIDENTAL COMPASSION. COST OF VERIFYING AND PROVIDING THE REQUIRED MINIMUM BEARING IS INCIDENTAL TO AND IS INCLUDED IN THE PRICE OF THE HANDHOLE.
 5. CONTRACTOR TO VERIFY THAT ALL DUCTBANK BENDS AND BENDERS ARE DESIGNED PER SUBMIT. REFER TO DUCTBANK LAYOUT SECTIONS, MAXIMUM OPENING 2'-6" x 2'-6" (9 WAY x 3 SIDE).
 6. PVC CONDUIT.
 7. ** LOCATION OF PULLING ROD DEPENDS ON DUCTBANK LOCATION. IT MUST BE APPROXIMATELY LOCATED ALONG THE TAB OF THE PULLING ROD.

SECTION A-A
TYPICAL CAST-IN PLACE CED HANDHOLE REINFORCEMENT
HS20 LOADING
(NOT TO SCALE)



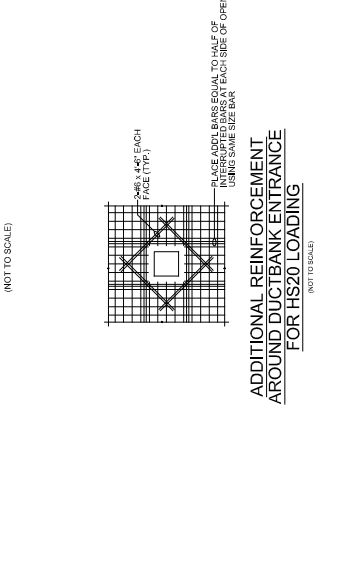
- NOTES:**
1. IF CONTRACTOR OPTS TO USE PRECAST HANDHOLE IN LIEU OF CAST-IN-PLACE, REFER TO DETAIL NO. 646-1R FOR GENERAL NOTES AND DESIGN ASSUMPTIONS.
 2. FOR CABLE SUPPORT RACK DETAIL & NOTES, SEE DETAIL NO. 646-2A.
 3. TOP SLAB DIAGONAL BARS NOT SHOWN FOR CLARITY. SEE DETAIL NO. 646-1R.
 4. EMB SPACING OF THE TOP SLAB REINFORCEMENT, SEE DETAIL NO. 646-1R.
 5. SUBGRADE BENEATH HANDHOLE FOOTINGS MUST BE PREPARED TO MEET A MINIMUM BEARING CAPACITY OF 2,000 PSF. CONTRACTOR TO VERIFY BEARING AND PROVIDE THE REQUIRED MINIMUM BEARING IN INCIDENTAL COMPASSION. COST OF VERIFYING AND PROVIDING THE REQUIRED MINIMUM BEARING IS INCIDENTAL TO AND IS INCLUDED IN THE PRICE OF THE HANDHOLE.
 6. ** ACTUAL SIZE, LOCATION & NUMBER OF DUCTBANK ENTRANCE DEPENDS ON DESIGN REQUIREMENT. REFER TO DUCTBANK LAYOUT & SECTIONS, MAXIMUM OPENING 2'-6" x 2'-6" (9 WAY x 3 SIDE).
 7. PVC CONDUIT.

SECTION B-B
TYPICAL CAST-IN PLACE CED HANDHOLE REINFORCEMENT
HS20 LOADING
(NOT TO SCALE)



- NOTES:**
1. IF CONTRACTOR OPTS TO USE PRECAST HANDHOLE IN LIEU OF CAST-IN-PLACE, REFER TO DETAIL NO. 646-1R FOR GENERAL NOTES AND DESIGN ASSUMPTIONS.
 2. FOR SECTION A-A, SEE DETAIL NO. 646-1R; FOR SECTION B-B, SEE DETAIL NO. 646-1R.

TOP SLAB PLAN
TYPICAL CAST-IN PLACE CED HANDHOLE REINFORCEMENT
HS20 LOADING
(NOT TO SCALE)



- NOTES:**
1. IF CONTRACTOR OPTS TO USE PRECAST HANDHOLE IN LIEU OF CAST-IN-PLACE, REFER TO DETAIL NO. 646-1R FOR GENERAL NOTES AND DESIGN ASSUMPTIONS.
 2. FOR SECTION A-A, SEE DETAIL NO. 646-1R; FOR SECTION B-B, SEE DETAIL NO. 646-1R.

ADDITIONAL REINFORCEMENT
AROUND DUCTBANK ENTRANCE
FOR HS20 LOADING
(NOT TO SCALE)

REFERENCE:
ASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 2002 THROUGH CURRENT EDITIONS

LOADS:
HS20

DESIGN CRITERIA:
1. EXCEPT AS NOTED, ALL MATERIALS SHALL BE OF THE HIGHEST QUALITY AVAILABLE.
2. REINFORCEMENT SHALL BE 60,000 PSI (ASTM A601).
3. IF SOIL BORING DATA ARE NOT AVAILABLE, ASSUME ALLOWABLE SOIL BEARING CAPACITY = 2,000 PSF.

NOTES:
1. THE TYPICAL INSIDE CLEAR DIMENSIONS FOR HS SHALL BE AS FOLLOWS:
1.1H; 4.1X; 4.1H

2. STRUCTURES MUST BE DESIGNED TO SUPPORT THE HS20 LOADING.

3. CONTRACTOR TO VERIFY SLAB AND WALL THICKNESSES AND REINFORCING REQUIREMENTS FOR HIGHWAY BRIDGES, 2002 THROUGH CURRENT EDITIONS. CONTRACTOR ALSO TO PROVIDE DESIGN FOR HIGHWAY BRIDGES, 2002 THROUGH CURRENT EDITIONS.

4. IF THE CONTRACTOR OPTS TO USE PRECAST HANDHOLES AND HANDHOLES, THE CONTRACTOR MUST SUBMIT STRUCTURAL DESIGN CALCULATIONS, SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER. CONTRACTOR SHALL VERIFY THAT THE STRUCTURES CAN SUPPORT THE ABOVE HS20 LOADING. THE CONTRACTOR MUST SUBMIT SHOP DRAWINGS DETAILING ALL CONNECTIONS AND DETAILS TO BE CAST IN PLACE. CONTRACTOR TO VERIFY THAT ALL DUCTBANK BENDS AND BENDERS ARE DESIGNED PER SUBMIT. CONTRACTOR TO VERIFY THAT ALL DUCTBANK BENDS AND BENDERS ARE DESIGNED PER SUBMIT. CONTRACTOR TO VERIFY THAT ALL DUCTBANK BENDS AND BENDERS ARE DESIGNED PER SUBMIT.

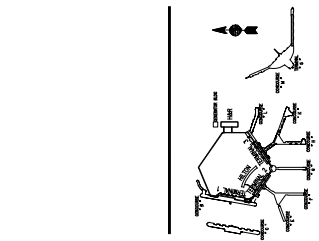
5. CED HANDHOLE FRAME AND COVER TO BE SQUARE. SPRING ASSET, BE CAST INTO THE TOP SLAB WITHIN THE AIRPORT OPERATING AREA (AVAL USE SPECIFICATION 14.15) AND CONTRACT DRAWINGS FOR THE CAST LETTERING REQUIRED FOR EACH LED.

6. WORK THESE REQUIREMENTS WITH ALL DETAILS ON THIS SHEET.

ABBREVIATIONS:
ASHTO = AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
AE = ARCHITECT/ENGINEER
HSA = HIGHWAY SAFETY AREA
SEP = COMMON ELECTRICAL DUCTBANK
CL = CLEARANCE
EM = EACH WAY
E-W = EACH WAY
TYP. = TYPICAL
W = WIDTH, L = LENGTH, H = HEIGHT

GENERAL NOTES AND DESIGN ASSUMPTIONS
FOR CAST-IN PLACE CED HANDHOLES AND MANHOLES
SUBJECT TO HS20 LOADING

APPROVED AS WORKING PLAN
09/11



APPROVED AS WORKING PLAN
09/11

| REV. | DATE | DESCRIPTION |
|----------|------|----------------|
| 02/27/09 | | ISSUED FOR BID |

PROJECT NAME:
REINFORCEMENT
BRIDGE REPLACEMENT

SHEET TITLE:
ELECTRICAL
DETAILS

DESIGNED: DR
DRAWN: RP
CHECKED: JR

PROJECT NO.: H3073.1500
DATE: 02/21/19

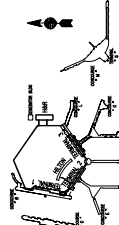
SHEET NO.:
E 07 004

REVISION:

PROJECT NO.: H3073.1500
DATE: 02/21/19

SHEET NO.:
E 07 004

REVISION:



APPROVED AS WORKING PLAN
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| REV | DATE | DESCRIPTION |
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| 02/21/19 | | ISSUED FOR BID |
| PROJECT NAME: | | |

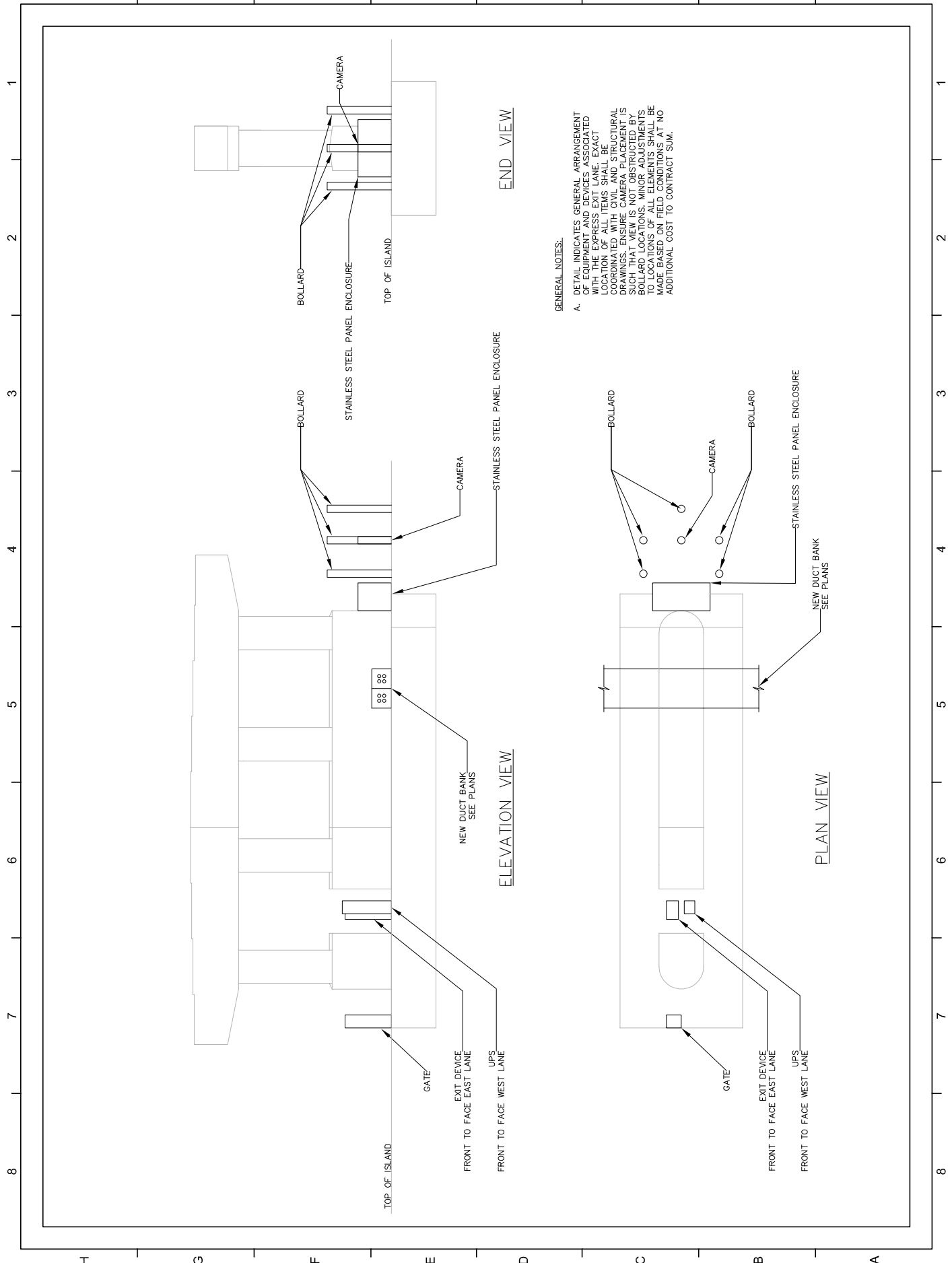
REIRCULATION
 BRIDGE REPLACEMENT

SHEET TITLE
**ELECTRICAL
 DETAILS**

DESIGNED: RP
 DRAWN: RP
 CHECKED: JR

PROJECT NO.: H3073.15-00
 DATE: 02/21/19

SHEET NO.
E 07 006
 REVISION



ELEVATION VIEW

PLAN VIEW

GENERAL NOTES:
 A. DETAIL INDICATES GENERAL ARRANGEMENT OF EQUIPMENT AND DEVICES ASSOCIATED WITH THE EXPRESS EXIT LANE. EXACT LOCATION OF EQUIPMENT SHALL BE COORDINATED WITH CIVIL AND STRUCTURAL DRAWINGS. ENSURE CAMERA PLACEMENT IS SUCH THAT VIEW IS NOT OBSTRUCTED BY BOLLARD LOCATIONS. MINOR ADJUSTMENTS TO LOCATIONS OF ALL ELEMENTS SHALL BE MADE BASED ON FIELD CONDITIONS AT NO ADDITIONAL COST TO CONTRACT SUM.

Read Me Text File.txt

This file offers instructions on utilizing the plans and documents on this CD for bidding purposes for the "Recirculation Bridge Replacement" bid package.

Project Name: Recirculation Bridge Replacement

Project Number: H3073.18-00

Specification Number: 227772

TO submit a bid, please print a hard copy of the ENTIRE part One of Three, Instructions and Execution Documents and continue to submit your prices on the hard copy of the schedule of prices. PLEASE DO NOT ATTEMPT TO SUBMIT PRICES ELECTRONICALLY, SUCH AS THROUGH EMAIL OR ON CD.

+++++ Printing ++++++

The contract plans are set up as half-size documents measuring 11"x17" in size. The following guide is meant as a general aide but due to different printers having different user interfaces, this guide may not work for all printer models. TO print half-size 11"x17" plans send to standard 11"x17" printer. In 'Print' window, set PAGE SCALING to "NONE". Select 11"x17" paper size under 'properties /Advanced' tabs in 'Print' window.

TO print full-size 22"x34" plans send to large format plotter. Select 22"x34" paper size under 'properties / Advanced' tabs in 'Print' window.

DO not toggle on "Expand small pages to paper size" or "Shrink oversized pages to paper size". Also in properties / Advanced' window, set SCALING to 200%.

If you do not have the ability to print your own drawings, below are some printers commonly used by many vendors who require this service. Some office supply stores also have limited printing abilities, such as printing drawings on quarter-sheet scale.

ABC Imaging

Cushing & Company

B&H Industries

Best Imaging

Blue Print shop

Digital Imaging Resources (DIR)

Image Direct

Mazner Printing

Parkridge Blue Printing Company

Royal Blue Printing Company

Skokie Valley Reprographics

+++++ Software Requirements ++++++

In order to use this CD you must have Adobe Acrobat Reader 5.0 or higher installed on your computer.

Acrobat Reader can be downloaded for free from:

<http://www.adobe.com/products/acrobat/readermain.html>

+++++ Original Contract Documents ++++++

While the city has made reasonable efforts to ensure that the contract documents on these CDs match the contract documents printed by the City, the City is not responsible for the individual computer, software, display, or output device used by the bidder or others to render the documents. The Bidder is responsible for

verifying that the documents on which its bid is based match the contract documents printed by the City. An official printed copy of the contract documents as printed by the City will be available for examination in the Bid and Bond room, 3rd floor of City Hall, 121 N LaSalle Street.

2018 CONSTRUCTION SAFETY MANUAL



RAHM EMANUEL
Mayor
City of Chicago



GINGER S. EVANS
Commissioner
Chicago Department of Aviation

DISCLAIMER NOTICE

The information contained herein was prepared and presented with reasonable care and is based on the most reliable information available to the author. The City of Chicago, the Chicago Department of Aviation (CDA) and the Chicago Airports Resources Enterprise Plus, LLC (CARE Plus, LLC) make no warranty, expressed or implied, of the fitness, accuracy or completeness of this information. Judgments as to the suitability of the information herein for the user's purposes are necessarily the user's responsibility.

INTRODUCTION

The Contractor shall have sole and complete responsibility for the implementation of a worksite safety plan. The Contractor shall take necessary precautions for the health and safety of employees and fully comply with applicable provisions of:

- All sections of 29 CFR 1926-OSHA Construction Industry Safety and Health Standards 29 CFR 1910-OSHA General Industry Safety and Health Standards
- FAA Advisory Circular 150 Operational Safety on Airports During Construction 5370-2G
- National Fire Protection Association codes
- City of Chicago Fire Prevention Code
- National Electrical Code, all applicable American National Standards Institute standards
- City of Chicago Building Code
- The CDA Construction Safety manual
- All standards or codes referred to in the listed document
- Any other applicable standards

Due to the changing nature of health and safety regulations, and because new information is constantly becoming available, this plan is subject to change without notice.

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EXHIBITS

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| Exhibit V-5 | Hot Work Permit Sample |
| Exhibit V-6 | Confined Space Permit Sample |
| Exhibit V-7 | ORD Notice to Airport Users |

I. GENERAL DEFINITIONS

- A. Airport means O'Hare International Airport and Chicago Midway Airport.
- B. CDA means the Chicago Department of Aviation.
- C. CAS means the Chicago Airport System, which includes Chicago O'Hare International Airport and Chicago Midway International Airport.
- D. Designated Representative means Owner's Representative or OR of the Chicago Department of Aviation.
- E. Competent Person means one who is trained to identify existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. Such persons will be available on site whenever work requiring a Competent Person is being done (scaffolding, excavation, confined space, fall protection, respiratory protection, or any other operation identified by CDA Safety).
- F. Construction Manager or CM means that entity identified in Part III, Division I of the Contract Documents (typically in section 01010), the entities that the City has contracted with to provide construction management services for the Chicago Airport System.
- G. Contractor means the employer awarded the contract to complete a project from the owner through their Construction Manager.
- H. Contractor's Safety Program means the program, covering worksite safety and property damage prevention that the Contractor must submit to the Chicago Department of Aviation as required by General Conditions Article XIV.B.1.a.
- I. Contractor's Safety Representative means the person assigned by the Contractor to be the Safety Representative for the project.
- J. Employee means any person or persons on the payroll of any participant that is under contract with the Owner through the Construction Manager or the Contractor.
- K. Jobsite means the location where work is expressly required under the applicable contract documents.
- L. CM's Manager of Safety for a Project means the person or entity who is notified in writing he (or it) has been so designated by CDA Safety.
- M. Participant means the Contractor, Subcontractor or their employees, whom are under contract with the Owner through the Construction Manager.
- N. CDA Safety means City of Chicago / CDA Safety Department Representative.
- O. Subcontractor means any person or persons, partnership, joint venture, corporation, or other entity, whom performs work at the jobsite, under contract to either the Contractor or one of its Subcontractors.

- P. Vendors, Suppliers and Materials Dealers means those persons or entities and/or their employees, whose activities on the jobsite are solely for the purpose of loading, hauling and/or unloading of materials or equipment at or from the jobsite.
- Q. Onsite means the location where the work is in progress.

II. STATEMENT OF POLICY AND INTENT

The Chicago Airport System Safety Manual reflects a desire by the Chicago Department of Aviation to prevent injuries to persons and to prevent damage to property and equipment.

The CDA considers no phase of construction or administration within the CAS of greater importance than accident prevention and asserts that accidents which result in personal injury and damage to property and equipment represent needless waste and loss. It shall be the policy of the CAS to conduct all operations safely and thereby prevent injuries to persons and damage to property.

Planning for safety shall start with the design and continue through purchasing, fabrication and construction in all phases of the CAS projects. All practical steps shall be taken to maintain a safe place to work. The Contractors must accept the responsibility for the prevention of accidents on work under their direction and shall be responsible for the thorough safety training of their employees.

The objective of this policy is to establish throughout the entire CAS system the concept that the prevention of accidents and protection of property is most important and therefore shall receive top priority, support and participation.

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III. PROGRAM OBJECTIVES

The CAS Construction Safety Manual has been created to coordinate the elimination or reduction of hazards and risks associated with the construction of the CAS projects, prevent accidents, reduce employee injury, prevent damage to property, promote maximum efficiency, and affect savings by the reduction of unplanned business interruption.

Only active participation by the CAS and the Contractor's supervisory staffs and employees will make the program effective. Active participation will also assist the participants in performing the following tasks:

- Providing a safe environment for employees to perform high quality work.
- Using safety planning as a tool to reduce bodily injury and property damage.
- Providing inspections to locate and abate unsafe conditions and practices.
- Protecting the public and property in the area of all staging and construction sites.
- Maintaining mandatory personal protective equipment programs.
- Using incident investigation information to abate deficiencies and increase controls in order to prevent similar accident recurrence.

NOTE: The CAS Construction Safety Manual does not supersede the Contractor's Safety Program except where the CAS Construction Safety Manual exceeds the requirements of the Contractor's program. The Contractor shall have first and foremost responsibility to enforce the more stringent safety program.

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IV. RESPONSIBILITIES

A. CHICAGO AIRPORT SYSTEM

The CDA Safety Staff shall coordinate safety on Chicago Airport System projects. The CM's Manager of Safety shall serve as liaison to the Managing Deputy Commissioner of Safety / Security or their designee. The CM's Manager of Safety shall be responsible for monitoring and coordinating the safety and property damage prevention program on projects the CM is assigned.

The CM's Manager of Safety shall assist the CDA Commissioner of Safety with administration of the policies and procedures as established by this Construction Safety Manual.

The CM's Manager of Safety shall monitor and evaluate the Contractor's Safety Program.

The CM's Manager of Safety shall review the Contractor's Safety Program for compliance with safety regulations, property damage prevention and this written program.

The CM's Manager of Safety shall provide monitoring of the Contractor's safety orientation program for Contractor's employees which includes a review of specific project issues, including but not limited to:

- Hazards present in their work assignments and the general work area.
- Instruction in the proper selection and use of personal protective equipment.
- Methods of reporting any unsafe conditions/practices the workers may encounter.
- Methods of reporting injuries and or illness and/or property damage incidents.
- Assisting the City Risk Manager with administration of Owner Controlled Insurance Programs when used for the project.

The CM's Manager of Safety may collect and maintain copies of records with regards to safety and insurance as required by this program, and shall produce periodic reports concerning the performance of the Contractors engaged in CAS projects.

The CM's Manager of Safety may conduct regularly scheduled meetings of all Contractors/subcontractors to review and discuss safety and property damage prevention. This may be a meeting dedicated exclusively to those subjects or as an integral part of the routine scheduling/planning meetings. A safety and property damage prevention meeting must be held at least once a month and minutes of the meetings shall be kept.

The CM's Manager of Safety and the Chicago Department of Aviation Safety Manager shall function as part of the project job planning team with emphasis on safety and property damage prevention.

The CM's Manager of Safety or CM's Safety Staff shall inspect construction sites for unsafe conditions or practices, and document that corrective action is taken where deficiencies are found.

The CM's Manager of Safety shall forward the results of monitoring and status of corrective action to the CDA Safety Department.

The CM's Manager of Safety may develop and implement a program of safety, training and education for all the Construction Manager's team members and/or employees. This includes initial orientation, weekly safety briefs, and periodic special sessions. The CM's Manager of

Safety may act as a resource for providing material and assistance to Contractor's designated Safety Representative in the performance of safety training and education.

The CM's Manager of Safety may assist the CDA, contractors and subcontractors in the investigation of all OSHA recordable incidents and other emergencies, obtain accident/investigation reports and forward all related copies to Chicago Department of Aviation Safety Department. Upon notification of an incident, the CM's Manager of Safety will immediately notify the CDA Safety of the incident.

In the event of imminent danger situations or when necessary to enforce mandatory safety or property damage prevention requirements, the CM's Manager of Safety may temporarily interrupt the work. The interruption of work activities shall immediately be communicated to the CDA Safety Department. CDA Safety will direct any extended work stoppage and will determine when work may restart.

B. CONTRACTOR RESPONSIBILITIES

The Contractor shall designate a Safety Representative for the project. This person shall be onsite at the project whenever work is being performed at the site or any staging area on Airport property. Dual roles (i.e. Supervisor/Safety Representative) are unacceptable. Multiple shifts will require additional safety representatives. The Safety Representative shall have project safety as his or her exclusive responsibility and not have any other responsibilities regarding this project. The Contractor must provide the Safety Representative with the authority necessary to ensure the safety of Contractor's and Subcontractor's employees and property. Among other responsibilities concerning the project safety, the Safety Representative shall provide: safety training, safety orientation, safety inspection, and conduct tool box safety meetings.

The Contractor shall provide the resume of its proposed Safety Representative to the CM's Manager of Safety review and approval. If the proposed Safety Representative is not approved, the Contractor must propose another individual for approval. The Safety Representative shall, as a minimum, have completed an OSHA 30 hour "Safety and Health Standards for the Construction Industry" course or equivalent course. In addition, the Safety Representative must have completed a First Aid/CPR course within the last twelve (12) months. The Safety Representative must also have a minimum of three (3) years of verifiable safety experience on construction projects developing safety programs, providing safety orientation, and conducting safety inspections.

Prior to the start of the Project, a representative from the Contractor and representatives of its Subcontractors, the Contractor's Project Manager, the City's Construction Manager and the City's Resident Engineer shall attend a mandatory Pre-Construction Safety Orientation meeting on subjects outlined by the CM's Manager of Safety.

The Contractor's Safety Program must be submitted, in writing, to the CM's Manager of Safety for review. The Contractor's Safety Program must, as a minimum, include:

1. REVIEW OF SAFETY PROCEDURES AND OTHER REGULATIONS

The Safety Representative shall review procedures, regulations and industry standards applicable to the processes, equipment, materials, and procedures used at the worksite in order to evaluate whether hazards are present.

2. REVIEW OF INTERNAL RECORDS AND INFORMATION

The Safety Representative shall review internal records of accidents, injuries, occupational illnesses, near-miss accidents, and safety violations to detect relationships between job hazards and recorded mishaps.

3. REVIEW OF OUTSIDE SOURCES

The Safety Representative shall review State and Federal accident and illness statistics, highlighting areas that may uncover hazards in the organization.

4. JOB HAZARD ANALYSIS

The Safety Representative shall make an analysis of each phase of the project to determine what hazards exist in connection with the procedures, processes, materials, and equipment used to perform them. A written job hazard analysis shall be prepared for each phase prior to the work beginning. A copy of the written analysis shall be forwarded to the CM's Manager of Safety.

5. CORRECTION OF JOB HAZARDS

Job hazards discovered in the course of a Job Hazard Analysis shall be referred to the appropriate supervisor for consideration. If a hazard can be corrected by a change in practices or procedures, appropriate modifications shall be instituted at the earliest possible time.

6. INSPECTION

The Contractor shall have a program of jobsite inspections. Inspections shall be conducted, with the focus to identify job hazards. Inspections shall be made at least weekly, and at least daily on FAA funded projects. Inspections records shall be retained for the duration of the project and shall be stored onsite. A copy of inspection reports shall be forwarded to the CM's Manager of Safety, no later than Monday of the week following the inspection.

7. EMPLOYEE REPORTING

Contractor's employees shall be instructed to report any and all safety deficiencies, which they may observe. The Contractor may use a specified hazard reporting form.

However, employees may report hazards by any available method. Oral reports shall be recorded in writing by supervisors. Reports may be submitted anonymously, at the employee's option. The Contractor shall advise all employees that they invite reports of hazards and pledges to take no disciplinary action against any employee as a result of the employee's submission of a hazards report. Employees may submit hazard reports to their supervisor or directly to the safety committee. Supervisors are directed to route all hazard reports to the CM's Manager of Safety, along with what corrective action has been taken.

8. INCIDENT INVESTIGATION

Every incident shall be investigated by a supervisor or manager, and an investigative report compiled on a specified form (a copy is available from the CM's Manager of Safety). (See Exhibit V-4). Incident investigation reports shall be forwarded to the CM's Manager of Safety along with recommendations for corrective action, no more than twenty-four (24) hours after the occurrence. The Contractor shall verbally notify the CM's Manager of

Safety of the accident, immediately. Upon notification from the Contractor of an incident, the CM's Manager of Safety will notify the CDA Safety of the incident.

With regard to hazards that are uncovered by periodic inspections, reported by employees, or discovered as result of an incident, the person receiving initial notice of the hazard, whether an inspector, manager, or safety committee member, is required to record the name of the person assigned responsibility for correction on the form on which the hazard is recorded and to forward copies of any such recommendation to all persons so named. All recommendations shall be followed up within one week. Failure on the part of the person assigned the responsibility for correction to take corrective action within the established time limit shall be reported immediately to the responsible person's supervisor, and the CM's Manager of Safety.

Completed inspection documentation, employee hazard reports, and accident investigation reports shall remain open before the safety committee and shall not be filed away until all corrective measures have been completed and documented.

In the case of imminent danger, hazards that cannot be corrected safely without exposing employees to danger, supervisory personnel are instructed to evacuate all nonessential personnel from the area of the hazard until such corrective measures have been completed and the area rendered safe.

9. CONDUCT EMPLOYEE TRAINING

All Contractor employees shall be required to take part in safety and health training. Training sessions on general safety principles and practices shall be held for all Contractor employees. Individual Contractor employees are assigned for additional training that will alert them to the specific hazards that go with their particular job assignments and instructions given them in appropriate methods and procedures for the prevention of illness and injury.

10. ORIENTATION OF ALL CONTRACTOR EMPLOYEES

General safety training shall be conducted using published materials and materials developed by the Contractors safety staff.

Safety training in specific job hazards is conducted using safe practices codes developed through job hazard analyses.

Training shall be conducted by qualified safety personnel or by supervisors with extensive experience in the identification, prevention, and control of job hazards.

Contractor Employees shall receive additional training whenever they are assigned to a new task for which training has not been administered and whenever new hazards are introduced into the workplace.

Supervisors shall receive special training covering all hazards and safe practices relating to their specific area of responsibility.

In addition to training sessions conducted for current Contractor employees, sessions conducted for new and reassigned Contractor employees, and sessions conducted to address new hazards, annual refresher course shall be administered to all Contractor employees.

Individual records shall be made of all training administered to Contractor employees and shall be retained for the duration of the project. Training records shall be maintained onsite.

Copies of all written training material shall be forwarded to the CM's Manager of Safety along with attendance documentation.

All Contractor employees shall attend a weekly safety training session (Tool Box Meeting). This session can be used as refresher training or a brief discussion of a new subject. Copies of notes used and attendance documentation will be forwarded to the CM's Manager of Safety no later than Monday following the session. The CM's Manager of Safety shall forward a copy of the Tool Box Meeting notes and attendees to CDA Safety.

11. MONTHLY SAFETY COORDINATION MEETING

To insure a steady flow of safety and health information, a mandatory monthly Safety Coordination Meeting will be held, with each Contractor's Safety Representative in attendance.

This meeting will be chaired by the CDA Safety Manager or his designee. Meeting minutes will be taken and attendance will be recorded.

12. INSURE EMPLOYEE COMPLIANCE

Code of Safe Practices

Part of each employee's regular training shall be on safe practices applicable to particular job assignments. For every job or class of jobs, a code of safe practices shall be developed through a Job Hazard Analysis. These codes are put in writing, and shall be circulated to all employees whose jobs involve the performances of tasks covered by the code, and shall be made a part of the Contractor's Safety Manual. The codes cover:

- a. Engineering Controls. Employees shall be forbidden to tamper with devices installed on equipment for the purpose of preventing injury. Employees who believe that a control device is inadequate, difficult to use, improperly installed, or damaged in any way are required to report any such condition to their supervisor.
- b. Procedural Controls. Employees shall be required to follow the procedures and employ the methods specified in the safe practices codes applicable to their job assignments. Employees who believe that a method or procedure is ineffective or difficult to use or who encounter problems with the use of specified methods or procedures are encouraged to report such problems to their supervisor.
- c. Administrative Controls. Supervisors shall be required to insure that employees adhere to schedules and alignments that have been made to implement administrative controls. Employees shall be required to make and supervisors are required to check and maintain, whatever time records are needed to carry out administrative controls.
- d. Disciplinary Procedures. The employer (Contractor) shall have a program of progressive discipline to enforce its work rules. The Contractor shall apply its disciplinary procedures with equal force to violations of safety rules as to violations of other policies and rules adopted by the organization. The Contractor's disciplinary program shall be made a part of the employer's safety program.

13. MAINTAIN RECORDS

The following records shall be compiled and maintained for the duration of the project unless otherwise required by the company or some other regulation.

- Monthly reports of occupational injury and illness
- Job hazard reports
- OSHA citations
- Results of incident investigations
- Safety inspection records and records documenting correction of reported hazards
- Job Analyses and corresponding codes of safe practices
- Individual employee training records

Contractor shall provide first-aid supplies onsite for their employees and a person trained in basic first-aid who can render immediate care when needed. The name of the designated first-aid provider and a copy of training documentation will be provided to the CM's Manager of Safety. Seriously injured employees will be transported by ambulance. The Contractor shall not permit an injured employee to drive themselves to the medical facility or home, unless approved by a medical professional.

The Contractor shall insure that all documents and correspondence sent to the CM's Manager of Safety, be sent in such a timely fashion as to reach the CM's Manager of Safety no later than the time specified.

Monthly injury/evaluation reports are to be submitted to the CM's Manager of Safety no later than the 5th day of each month.

C. CONTRACTOR'S SUPERVISORS RESPONSIBILITIES

1. Be responsible for planning and executing all work to comply with the Contractor's Safety Program and the Contract Specifications.
2. Be knowledgeable of loss control and public protection requirements identified in the safety specifications of the Contract Documents.
3. Require each supervisor and all workers to use the personal protective equipment in accordance with the Contractor's Safety Program, CAS, City ordinances and all State and Federal safety-related statutes, rules and regulations.
4. Participate in fact finding and resolution on all incident investigations.
5. Take immediate corrective action to abate identified unsafe conditions and practices.
6. Communicate to the Contractor's project manager and to the Contractor's Safety Representative noted safety concerns or violations that require attention.
7. Cooperate with designated safety and government representatives.

D. CONTRACTOR SAFETY REPRESENTATIVES RESPONSIBILITIES

1. Make daily job site safety inspections and take immediate abatement action to eliminate observed safety deficiencies.

2. Provide appropriate written materials for those conducting weekly "Tool Box Meetings", review meeting reports for employee attendance and periodically attend "Tool Box Meetings" to evaluate their effectiveness.
3. Attend CAS Construction Safety and Safety Training Meetings when requested and share experiences with peers.
4. Promote total job safety among employees and visitors.
5. Oversee the investigation of all incidents involving the Contractor or subcontractor(s) to determine primary causes, contributing factors and those actions necessary to prevent a recurrence.
6. Maintain incident records and forward copies/reports to the CM's Manager of Safety.
7. Follow-up on all recommendations requested by CDA, CAS, OSHA, FAA and other governing authorities, with a written response to CM's Manager of Safety within twenty-four (24) hours, stating the status (date of compliance/date of expected compliance) of the recommendations.
8. Furnish all information concerning the safety of the various operations as may be requested by the CM's Manager of Safety and the CDA Safety Manager.

E. CONTRACTOR'S EMPLOYEE RESPONSIBILITIES

1. Perform all work in a safe manner.
2. Accept responsibility for your own safety and report all unsafe acts or conditions to the foreman.
3. Report all incidents, injuries, and illnesses immediately upon their occurrence. Report for medical treatment as directed. A release for work authorization must be provided prior to returning to work.
4. Conduct work in accordance with CAS and established state and federal safety regulations.
5. Attend and participate in Tool Box Safety Meetings and/or demonstrations as requested.
6. Participate in accident investigation procedures as requested.
7. Be aware of the responsibility to protect yourself, fellow workers, and the general public from accidental injury.
8. Protect tools or equipment provided from needless damage or loss from theft.
9. Call to the attention of the supervisor any broken or dangerous tools capable of causing injury.

V. SPECIAL REQUIREMENTS FOR AIRPORT SECURITY AND OPERATIONS

- A. The requirements for Airport Security and Operations is incorporated by reference as if Article XV of the current General Conditions was repeated here word for word in this Article V.

- B. In addition to the above. The Contractor shall:
 - a. Take extreme care when locating existing underground utilities. Contractor shall properly complete FAA Field Cable Locate Request forms see Exhibit V-1, submit them to the FAA Technical Operations office and simultaneously transmit a copy to the Construction Manager. The Contractor shall designate an on-site person to monitor utility locating activities. Hand excavation and appropriate equipment shall be utilized wherever and whenever appropriate. DIGGER, JULIE, FAA and AGI shall be consulted to insure that utility locations are correctly marked.

 - b. In addition, prior to excavating the Contractor shall execute the procedures and requirements of the "Underground Construction Notification" form. The meetings, notifications, activities and actions required by the form will be the Contractor's responsibility to organize, coordinate, implement and execute. Work shall proceed only after the completed form has been approved by the Commissioner. See Exhibit V-2.

 - c. The Contractor must fill out the request for FAA Assistance form to gain access to the controlled areas described in FAA's response to form 7460-1. This form shall be submitted 5 days in advance to FAA for review and assistance. See Exhibit V-3.

Remainder of page left intentionally blank.

VI. GENERAL SAFETY REQUIREMENTS

The following sections describe general safety program requirements that will be met by all personnel on site. Contractor safety programs shall be defined such that they meet these requirements.

A. PERSONNEL CONDUCT

1. Under no circumstances will alcoholic beverages or controlled substances be permitted on any project. Anyone found in possession of the above will be immediately removed from the site and may not be allowed back to work on an airport project.
2. Fighting will result in all participants being removed from the site.
3. Firearms and all weapons are prohibited on site.
4. Cameras and video recorders are prohibited on site.

NOTE: Violation of any of the above rules will be grounds for the CM's Manager of Safety to request CDA Safety to permanently remove a Contractor's employee from any and all CDA projects.

B. IDENTIFICATION AND REPORTING OF UNSAFE CONDITIONS

The Contractor shall immediately report to the CM's Manager of Safety all accidents arising out of, or in connection with, the performance of the work on the site, which caused death, personal injury or property damage. A written report shall be submitted within 24 hours. If any claim is made by anyone against the Contractor or any Subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the CM's Manager of Safety giving full details of the claim.

C. CONTRACTOR CORRECTIONS OF UNSAFE CONDITIONS

Should the CM's Manager of Safety determine the Contractor is not in compliance with a CDA, Federal, State, or Local requirement, (after consultation with the Construction Manager & CDA Safety), the CM's Manager of Safety shall have the authority to order cessation of the non-compliant occurrence and require immediate correction. All costs of abatement shall be borne by the Contractor deemed responsible, and no time extension or additional costs shall be granted.

The Contractor shall correct any unsafe condition existing on the project immediately upon receipt of written notice. The unsafe condition shall be corrected in accordance with applicable regulations at the Contractor's expense. The Contractor shall be responsible for all liability created from unsafe conditions, including but not limited to any legal expense, re-inspection costs, and any delay to the project to other contractors.

Each Contractor shall in a readily visible manner, identify all of his tools, and similar material either by paint color or label.

Contractors shall immediately report any occurrences of theft, vandalism, personal threats, or bodily violence to the CM's Manager of Safety. Contractors shall provide any security measures they feel are necessary to protect their personnel, material, equipment, or other property.

D. HOT WORK

Hot work is defined as a process or procedure, which could result in a fire if not properly controlled. Common types of hot work in construction include but are not limited to: welding, burning, cutting, brazing, soldering, gasoline or fuel storage areas repair, grinding, spark producing or heat generating activity.

Hot work will be permitted only during normal working hours unless authorized by the CM's Manager of Safety. Regardless of hours of Hot Work, CM's Manager of Safety must be notified of all Hot Work activity. Permits shall be obtained by the Contractor's Safety Representative the day before work is to be accomplished. The work area shall be inspected by the Contractor's Safety Representative to verify that adequate control has been established. A copy of the permit will be posted or available within fifty (50) feet of the point of work for which a permit is issued.

The Contractor will issue all cutting/welding hot work permits to its employees and those of its Subcontractors.

1. No Hot Work may be done without a Hot Work Permit.
2. All flammable materials shall be removed from the area before a permit is issued.
3. The CM's Manager of Safety may assist in determining necessary precautions to safeguard life and property.
4. Contractors shall supply their own fire extinguishers for each welder and torch.
5. Contractors shall supply their own fire watch for each Hot Work operation. The fire watch must remain at the location of each hot work operation a minimum of thirty (30) minutes after hot work is complete.
6. Shields shall be provided by the contractor to protect workers from welding flashes.
7. All areas will be kept clean of all trash.
8. Contractor shall provide flammable resistant clothing for its employees.
9. Contractors shall be responsible for the work of their Subcontractors.
10. Contractor shall provide "Flash Curtains", welding screens or other means around cutting, burning or welding work to protect surrounding Contractor employees and the general public.
11. When cylinders are transported by power vehicles, they shall be secured in a vertical position with the caps in place.

Oxygen cylinders in storage shall be separated from fuel gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 feet or by a noncombustible barrier (fire wall) at least 5 foot high having a fire resistant rating of at least one-half hour.

E. ELECTRICAL

1. RESPONSIBILITY

Each contractor performing the work has the responsibility for the proper use of all electrical tools and equipment.

2. GROUNDING

The non-current carrying metal parts of portable and/or plug connected equipment shall be grounded.

Exposed, non-current carrying metal parts of fixed electrical equipment, including motors, generators, frames and tracks of electrically operated cranes, electrically driven machinery, etc., shall be grounded.

The path from circuits, equipment, structures, and conduits or enclosures to ground shall be permanent and continuous and have ample carrying capacity to conduct safely the maximum current which may be imposed on it.

Driven rod electrodes shall have a resistance to ground not to exceed 25 ohms. Where the resistance is over 25 ohms, two or more electrodes connected in parallel shall be used.

Grounding of circuits shall be checked to ensure that the circuit between the ground and the grounded power conductor has a resistance which is low enough to permit sufficient current to flow or cause the fuse or circuit breaker to interrupt the current.

All temporary wiring shall be effectively grounded in accordance with the Chicago Electrical Code, Article VI – Grounding and all other applicable provisions of the Chicago Electrical Code.

Precautions shall be taken to make any necessary open wiring inaccessible to unauthorized personnel.

All 120 volt, 15-amp receptacle outlets on the site, which are not part of the permanent wiring of the building, shall use ground fault circuit interrupters.

3. EQUIPMENT GROUNDING CONDUCTOR PROGRAM

Ground Fault Circuit Interrupters (GFCI) are to be used at all times.

In addition, an equipment inspection program shall be established on the construction site covering all cord sets and receptacles which are not a part of the permanent wiring of the building or structure and tools which are available for use or used by employees.

This program shall comply with the following minimum requirements:

- a. Each cord set, attached cap, plug and receptacle or cord set, and any equipment or tool connected by the cord and plug, except cord sets and any receptacles which are fixed and not exposed to damage, shall be visually inspected before each day's use for external defects such as, deformed or missing pins or insulation damage. Equipment found damaged or defective may not be used until repaired.
- b. The following tests shall be performed on all sets and receptacles which are not a part of permanent wiring of the building or structure, and cord plug-connected equipment required to be grounded.

- c. All equipment grounding conductors shall be tested for continuity and shall be electrically continuous.
- d. Each receptacle and attachment cap or plug shall be tested for correct attachment of the equipment-grounding conductor. The equipment-grounding conductor shall be connected to its terminal.

All required tests shall be performed:

- a. Before first use,
- b. Before equipment is returned to service following any repairs, and
- c. Before equipment is used after any incident which can be reasonable suspected to have sustained damage (for example, when a cord set is run over).

Contractors shall not make available or permit the use by employees of any equipment which has not met the requirements of this section.

Tests performed as required in this section shall be recorded. This test record shall identify each receptacle cord set, and the cord and plug-connected equipment that passed the test and shall indicate the last date it was tested or interval for which it was tested. This record shall be kept by means of logs, color-coding, or other effective means. The record shall be made available on the job site for inspection.

4. ELECTRICAL TOOLS AND CORDS

Portable tools and appliances protected by an approved system of double insulation, or its equivalent, need not be grounded. Where such an approved system is employed, the equipment shall be distinctively marked.

All extension cords shall be rated for hard or extra-hard usage as defined by the National Electric Code, with three wires and a ground pin.

Electrical extension cords will not be plugged together. A cord of sufficient length must be used.

Electrical extension cords must not be placed on the ground of the floor. They must be secured at least seven (7) feet off the ground or floor.

Tools and cords in need of repair will be removed from service immediately. The tool or cord will be rendered inoperative, either by tagging, by removing the end plug, or by locking until it is repaired and tested.

5. ELECTRICAL PANELS AND TEMPORARY WIRING

All energized panels shall be marked with its operating voltage by the installing contractor.

All energized panels shall have its live parts covered and protected from accidental contact with an appropriate solid cover. Cardboard does not meet this requirement.

All temporary wiring shall be installed in accordance with 29 CFR 1926.405 Wiring methods, components, and equipment for general use.

F. LOCKOUT/TAGOUT PROCEDURES

1. GENERAL REQUIREMENTS

When a lock/tag is placed on any energy source, that source will not be used until the lock/tag is removed in accordance with this policy.

Contractor management shall instruct all affected employees in the purpose, use, and safety significance of the Lockout/Tagout procedure.

The Lockout/Tagout devices used for compliance with this procedure shall be as follows:

Locks: Locks shall be of suitable manufacture, color-coded or otherwise identified for lockout use only.

Tags: Standard tags shall be used in all facilities

It shall be the responsibility of each contractor to maintain an adequate supply of safety locks and a written record of lock number, date issued, and name employee to whom the lock was issued.

Affected employees shall be trained in all aspects of the purpose and use of the Lockout/Tagout procedure by their Contractors. The standard Lockout/Tagout training program shall be utilized. Documentation of such training will be submitted to the CM's Manager of Safety.

An energy source shall be defined as any electrical, mechanical, hydraulic, pneumatic, chemical, nuclear, thermal or other energy source that could cause injury to personnel. An energy-isolating device shall be defined as physical device which prevents the transmission or release of energy, for example, but not limited to, the following: a manually operated electrical circuit breaker, a disconnect switch, manually operated switch, a slide gate, a slip blind, line valve, block or similar devices with visible indication of the position of the device.

A circuit tester is to be used to determine that the electrical line is in fact de-energized, prior to commencing work.

2. CONTRACTOR DEVELOPED PROCEDURES

Each affected Contractor/Subcontractor shall supply the CM's Manager of Safety with a copy of its Lockout/Tagout procedure prior to starting work. In addition, each Contractor/Subcontractor will provide a copy, to the CM's Manager of Safety, a Lockout/Tagout checklist listing the start up and shut down procedures for its equipment and all other activities involving Lockout/Tagout.

3. SEQUENCE OF LOCKOUT PROCEDURE

When necessary, shut equipment down by the normal stopping procedure, (depress stop button, open toggle switch, valve, etc.).

Open disconnect switch, operate valve, or other energy isolating device so that the energy source(s), (electrical, mechanical, hydraulic or air, gas, steam, water pressure, etc.) must also be dissipated.

Lockout/Tagout the energy source(s) with assigned individual devices. In situations involving more than one person, all affected employees are required to place their assigned individual lock or tag on the energy-isolating device. (After assuring no personnel are exposed, operate push button or other normal operating controls to make certain the equipment will not operate. CAUTION: Return operating controls to neutral or off position after test.

Where Lockout/Tagout is not feasible (in the case of required, repetitive adjustments or production operations) the tests or work shall be accomplished under the protection of one designated individual.

If work on a piece of equipment has not been completed by the end of the shift, the supervisor in charge shall Tagout the equipment to allow the removal of locks. The oncoming shift attaches their lock(s) at which time the tag shall be removed by the oncoming supervisor.

G. CRANE SAFETY AND RIGGING

Cranes are a vital part of any construction operations. To assure that they handle the loads properly, safely, and with the greatest efficiency, the following procedures are necessary. The inspection report for the cranes and derricks must be completed in accordance with 29 CFR 1926, Subpart CC.

Contractors must follow all requirements of Subpart CC – Cranes and Derricks in Construction. The contractor must designate an Assembly/Disassembly Director in accordance with 29 CFR 1926.1404; a qualified signal person, according to 29 CFR 1926.1428; and a qualified rigger described in 29 CFR 1926.1401. Additionally, Contractors assume the role of the controlling entity as required in Subpart CC.

Fall protection must be used during assembly disassembly, inspections or other operations where fall protection hazards exist.

Contractors are responsible for implementing the requirements of 29CFR1926, Subpart CC by the specified phase-in dates.

1. MOBILE CRANE SET-UP

The operator shall be responsible for:

- a. The proper placement of the crane in relationship to the load to be handled and the landing area so as to obtain the best rated lift capacity.
- b. Leveling the crane to within one degree of level and rechecking the level a minimum of three times during the eight-hour work shift.
- c. Assuring the outriggers are fully extended and locked in place, or if the manufacturer allows, deployment as specified in the crane's load chart.
- d. The determination of stable or unstable ground of footing: should additional floats, cribbing, timbers, or other structural members be needed, they shall be of proper design and sufficient to uniformly distribute the load.
- e. The installation and maintenance of crane swing radius protection.
- f. The proper barricading of the outriggers.

2. LOAD RATING

The weight of all auxiliary handling devices such as hoist blocks, headache balls, hooks, and rigging shall be considered as part of the total load.

Additionally, the weight of all items added to the load at the site must be determined and added to the total weight.

The Bill of Lading, provided to the operator must be used to assist in determining the load's total weight.

3. CRANE INSPECTION

All cranes shall have posted on the crane or in the cab, a valid annual inspection certificate showing a certified third party inspection. The frequency of, and criteria for inspections must be performed in accordance with 29 CFR 1926.1412.

Cranes shall be inspected:

- a. After setup and prior to initial lift.
- b. Before each shift.
- c. After every malfunction or severe service.
- d. After modifications or repairs to the crane and/or its components.
- e. After repairs or adjustments.
- f. When the crane has been idle for three (3) months or more.

Written Daily Inspection items to be checked:

- a. All control mechanisms for maladjustment interfering with operation.
- b. All control mechanisms for excessive wear of component and contamination by lubricants or other foreign matter.
- c. All safety devices for malfunction.
- d. Deterioration or leakage in air or hydraulic systems.
- e. Crane hooks with deformation or cracks, sling and chokers for broken strands, fraying or kinking.
- f. Safety latches in an operable condition on all hooks, except where otherwise specifically authorized.
- g. Electrical apparatus for malfunctioning, signs of excessive wear, dirt and moisture accumulation.
- h. Periodic and annual inspections shall be performed in accordance with the manufacturer's recommendations

4. RECORD KEEPING

All written records pertaining to crane inspections, daily and annual, shall be kept with the crane.

If during any safety inspection, the operator or supervisor cannot produce the required crane inspection sheets, the crane shall immediately be shut down and inspected.

5. OPERATOR QUALIFICATIONS AND OPERATION PROCEDURES

Operator shall have in his possession a current City of Chicago Crane Operator's permit and be qualified and certified in accordance with 29 CFR 1926.1427.

Cranes shall be operated by the following personnel:

- Designated operators who have been licensed by an approved agency or union and are in possession of a City of Chicago Operator's permit.

- Trainees who are under the direct supervision of the designated operator
- Inspectors certified for crane inspection.

No one other than the above personnel shall be in or on the crane during operations. Exceptions are oilers or supervisors whose duties may require their presence.

6. OPERATION PROCEDURES

Resident Engineer will notify CDA Operations when a crane is to be used Airside including height of boom and length of time crane will be in use. The crane must be equipped with a flag or mars light at its highest point according to approved FAA 7460.

The operator shall:

- Not engage in any practice, which may divert the operator's attention while engaged in crane operation, to include not wearing walkman-type radio (entertainment) headsets.
- Not operate the crane if physically or mentally unfit, or if taking prescription drugs that may impair vision, balance or produce other adverse affects.
- Not respond to any signal, which is unclear or is given by anyone other than appointed signalmen. Exception: The operator shall respond to a stop signal given by anyone.
- Not permit trainees to make initial lifts. The operator shall perform the first lift to determine lift stability, crane function, and safety in general.
- Have final responsibility and control over the crane operations. Whenever there is any doubt as to safety, the operator shall have the authority to stop and refuse to handle loads until safety has been assured.
- Upon request, demonstrate the ability to determine total load weight and its relationship to the crane load charts.

7. HANDLING THE LOAD

No crane shall be loaded beyond its rated capacity, except for test purposes. When loads which are limited to structural competence rather than by stability are to be handled, the operator and supervisor shall, concurrently, determine that the weight of the load has been determined within plus or minus 5 percent before the load is lifted.

Attaching the load:

- The load shall be attached to the hood by means of slings or other approved devices.
- No open hooks shall be used for lifts higher than two (2) feet. Hooks used for lifts in excess of two (2) feet shall have hook safety latches or be safety wired to prevent slings from jumping off the hook.

Hoisting the load:

- The operator shall determine that the crane is level to within one (1) degree and, where necessary, is properly cribbed and blocked.

- b. The operator shall be responsible for determining that the load is properly secured and balanced before making the hoist.
- c. The operator shall determine that the rope is properly seated on the drum and in the sheaves, the load line is not kinked and multiple part lines are not twisted around each other.
- d. All loads must have a tagline attached to them.

During Hoisting:

- a. The operator shall not suddenly accelerate or decelerate a moving load.
- b. The operator shall not permit the load to contact any obstruction.
- c. The operator shall not swing loads over personnel.
- d. The operator shall not permit side loading of booms or dragging load. Lifts shall be limited to freely suspended loads.

Total Imposed Load:

The load on the tires, outriggers, wheels or tracks is derived from the gross weight of the crane and suspended load, i.e., the sum. However, additional loading can be exerted by shock or dynamic (movement) loads due to fast hoisting, lowering, swinging, or wind forces. This total load must be considered.

8. GROUND STABILITY

One of the critical factors of proper crane setup is a "firm supporting surface". For maximum capacity, the crane must be level. However, to maintain a level condition, the ground surface must be adequate to support the dynamic load of a "working crane".

Four basic elements that are to be considered:

- a. Total imposed load
- b. Supporting surface area
- c. Pounds per square foot
- d. Soil Stability

The amount of area in contact with the ground will determine the bearing pressure the crane and load exert on the soil. When it is determined that the bearing pressure exceeds soil stability, the bearing area of the crane must be increased by the use of cribbing.

Cribbing to be used must be:

- a. Strong enough to withstand the weight of the crane without major deflection, thus actually increasing the bearing surface.
- b. Bolted or secured together to prevent slippage and collapsing.
- c. In complete contact with the soil – no voids, unsupported areas, etc.

For descriptive purposes, it is necessary to distinguish between three broad groups of soil:

- a. Granular soils, including sand and gravel
- b. Fine grained soils, including silts and clays
- c. Organic soils, including peat

Different type soils will give different load-bearing pressure. When setting up a machine, the contractor's Assembly/Disassembly Director must be able to distinguish between the

three groups of soil, the approximate mixture of each, their moisture content and their depth. The Assembly/Disassembly Director as defined in 29CFR1926.1901, must consider factors such as water tables and distance to excavations, which affect the soil's ability to withstand the pressure without collapse. The project soil analysis report may be used as an indicator of soil conditions.

Various tables are available which give the relative load-bearing capabilities of the soil types under static loads. Local building code departments are usually a good source for the tables.

9. RIGGING REQUIREMENTS

- a. All rigging equipment sets shall have permanently affixed identification stating size, grade, rated capacity and manufacturer.
- b. All rigging devices including slings, chains and wire rope shall have permanently affixed identification stating size, grade, rated capacity and manufacturer.
- c. Rigging not in use shall be removed from the immediate work area.
- d. Rigging, including slings, shall be hung on a rigging frame so that bends and kinks do not develop.
- e. Wire rope slings shall be lubricated as necessary during use. Slings shall be lubricated no less than every 4 months when in storage.
- f. "Shop-made" grabs, hooks, clamps or other lifting devices shall not be used unless proof-tested to 125 percent of their rated load by an approved testing agency. Approved devices shall have the capacity permanently affixed.
- g. Slings, on the job, shall not be left lying on the ground or otherwise exposed to dirt and the elements.
- h. Eyes in wire rope bridles, slings or bull wires shall not be formed by wire clips or knots.
- i. Protruding ends of strands in splices on slings or bridles shall be covered or blunted. All rigging equipment in use shall have a safety factor of five (5).

10. SAFE RIGGING PRACTICE

- a. Slings in use shall not be shortened by knots, bolts, or other makeshift devices.
- b. Wire rope slings shall be padded or softeners used to protect from damage due to sharp corners.
- c. Slings used in a basket hitch shall have the loads balanced to prevent slippage.
- d. Loads handled by sling shall be landed on cribbing or dunnage so that slings will not be pulled from under or be crushed by the load.
- e. Slings subjected to shock loading shall be immediately removed from use and destroyed.

- f. When U-bolt wire rope clips are used, industry recognized standards shall be used to determine number and spacing of clips.
- g. Wire rope cable clips shall be applied in accordance with recognized standards.

11. INSPECTION AND RECORD KEEPING

In addition to the inspection required elsewhere in this document, thorough inspection of slings in use shall be made on a regular basis as determined by:

- a. Severity of service conditions
- b. Frequency of sling use
- c. Nature of lifts being made
- d. Experience gained on the service life of slings used in similar use

Inspection periods shall not exceed once in twelve (12) months.

A record of inspections shall be maintained onsite.

12. INSPECTION CRITERIA

Wire rope slings shall be removed from service when:

- a. There is wear or scraping of one-third the original diameter of outside individual wires.
- b. Kinking, crushing, birdcaging or similar damage.
- c. End attachments are cracked, deformed or worn.
- d. There is exposure to temperatures in excess of 200 degrees F. (fiber-core) or 400 degrees F (non-fiber core).
- e. Corrosion of the rope or end attachments occurs.

Natural and synthetic fiber rope slings shall be removed from service when:

- a. Abnormal wear is observed
- b. Powdered fibers are found between strands
- c. Fibers are cut or broken
- d. There are variations in the size or roundness of strands
- e. There is discoloration or rotting
- f. There is distortion of sling hardware
- g. Exposed to temperatures in excess of 180 degrees F
- h. There is no visible identification explaining the maximum load it can lift

Synthetic web sling shall be removed from service when:

- a. Colored warning fibers are visible
- b. Subjected to acid or caustic burns
- c. Melting or chaffing of any part of the sling surface occurs
- d. Snags, punctures, tears, or cuts are observed
- e. Stitches are worn or broken
- f. Fittings are distorted
- g. Exposed to temperatures in excess of 180 degrees F (synthetic web) or 200 degrees F (polypropylene web).
- h. There is no visible identification explaining the maximum safe workload.

13. OVERHEAD UTILITIES

Cranes working in the vicinity of overhead power lines must follow safe distance requirements established in 29 CFR 1926.1407 – 29 CFR 1926.1411 for operations and assembly/disassembly of cranes.

14. REPAIRS

The listed slings may be repaired in accordance with manufacturer's directions.

- a. Synthetic slings
- b. Metal mesh slings
- c. Wire rope slings

Sling repairs must be performed by the manufacturer or any equivalent entity. Once repaired, each sling shall be permanently marked or tagged and a record of the repair maintained.

15. CRITICAL LIFT PROCEDURES

When two or more cranes are to lift a single load, the requirements of 1926.1432 Multiple Crane/Derrick Lifts supplemental requirements must be met.

A job hazard analysis is required for this type of work operation.

16. IN CASE OF SERIOUS EVENT

In the event the worst happens and a crane collapses, turns over, drops a load or otherwise fails, the Contractor shall follow these procedures;

- a. Render emergency first aid.
- b. Call the Chicago Fire Department.
- c. Do not allow the crane, its components or the load to be moved unless vital to rescue operations until a complete and thorough investigation has been completed.
- d. Contact the CM's Manager of Safety immediately to initiate proper accident reporting and investigation procedures. The CM's Manager of Safety shall contact the CDA Safety Manager.
- e. Take photographs of everything including overall photographs of entire scene, detailed photos of components and anything that will explain what happened and submit complete copy to the Construction Manager.
- f. Begin the interviewing process of witnesses and participants to determine what happened.
- g. Assist other investigatory agencies while preserving the legal rights of all concerned parties.
- h. Prepare a complete investigation and report of what happened and submit to the CM's Manager of Safety. The CM's Manager of Safety shall forward a complete investigation report to the designated CDA Safety Manager.

H. EXCAVATION

The purpose of this program is to establish guidelines to be followed to control excavation activities. All excavations will be done in full compliance of Subpart P, 29 CFR 1926.

Supervisors (including foreman) shall insure that all employees comply with all provisions contained in Subpart P.

All excavations shall be done under the supervision of a competent person.

All soils are to be considered type "C" so all safety provisions are to be reviewed and complied with in their entirety.

This is to include at least a 1-1/2: 1 (34 Degrees) ratio when sloping the sides.

Any excavation greater than twenty (20) feet in depth shall have plans, which are signed and stamped by a registered professional engineer.

1. SUITABLE INSPECTION

Once the initial excavation is completed, a competent person will inspect the excavation and complete a "Soils Analysis Checklist" and a "Daily Trenching Log". These documents will be maintained at the jobsite. No employee will enter the excavation until this documentation is complete.

2. DAILY INSPECTION

Daily inspections of each excavation, the adjacent area, and the protective systems shall be made by a competent person for evidence of possible cave-ins, indications of failure of protective systems, hazardous atmospheres or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after each rainstorm or other hazard-increasing occurrence. All inspections will be documented on the Daily Trenching Log and a copy maintained at the jobsite.

3. LOCATING UNDERGROUND UTILITIES

- a. When trying to locate underground utilities remove the grass and ground cover in the proximity of the utilities. View with skepticism protective fences or stakes which appear to demarcate utility channels and identify the utility type because the City does not warrant their accuracy. Utilize FAA Locate Request forms, and do not rely on verbal or phone conversations with FAA Technical Operations, for the information you are seeking.
- b. Designate, dedicate and identify that person on-site who shall monitor utility locating activities, will be responsible to see to it that a utility locator, hand digging or use of a hydro excavator is used and ensure adequate lighting exists for the operation to proceed safely. Insist that a representative of the particular utility visit the site when "refreshing" a DIGGER (for earth disturbance and the location of underground utilities within Chicago city limits), Joint Utility Locating Information for Excavators (JULIE), FAA and American Geological Institute (AGI) number for the project to insure the utility location is correctly marked. Once exposed use visual markers such as fluorescent paint identify highlight their presence to others in the area.

- c. The Contractor is directed to integrate the above information regarding utility identification into his program of daily safety toolbox talks. The Construction Manager will establish “report of locates” which will reference pertinent drawings and identify findings.

4. HAND TOOL EXCAVATION

Where existing underground utilities, etc., are within ten (10) feet from the exposed excavation, supervisor shall visually establish the position of the underground utilities, etc., from the observance of buried utilities surface markers, or in their absence, by hand tool excavation at sufficient intervals.

5. MACHINE EXCAVATION

When locations of all utilities, etc., have been established by surface markers, hand tool excavations, or accurate as-built drawings, and the permit does not contain a requirement for hand tool excavation only, machine excavation shall commence under close supervision.

6. UNEXPECTED UTILITIES, ETC.

During excavation, if unexpected utilities, etc., are discovered, the excavation shall stop and the CM's Manager of Safety shall be notified immediately. Excavating shall not be resumed until all notifications are made according to the Chicago Department of Aviation Underground Construction Notification form and that CDA Safety and/or CM's Manager of Safety has determined work can resume.

7. BARRICADING

Excavations will be properly barricaded when actual work is not being done. Barricading will be placed six feet from the edge of the excavation and will be of such strength to prevent entrance.

I. ASPHALT WORK

Due to the heavy viscous nature of asphalt, and being one of the most dangerous of all hot products, additional safety requirements are necessary for personnel working in all areas where asphalt is being handled.

Additional safety requirements include:

- a. Long sleeved shirts
- b. Gloves loose enough to be thrown off with a flip of the wrist
- c. High top shoes 5” or more from the bottom of the sole to the ankle tops
- d. Long pants, preferably without cuffs

Need to have a five (5) gallon water container, labeled “non-drinking water” onsite to be used for the possible treatment of burns.

NOTE: It is recommended that nylon or polyester clothing NOT be worn due to the tendency of these materials to melt and adhere to the skin when heated or burned. Wool is the best material to be worn with cotton being the next best.

J. PERSONAL PROTECTIVE EQUIPMENT

This policy is to establish guidelines and rules for personal protective equipment. All personnel including visitors and truck drivers shall comply with the following:

1. HEAD PROTECTION

All Foremen, Superintendent, Field Engineers, and Management will wear white hard hats, and all craft employees will wear colored hard hats.

Hard hats shall be worn at all times while onsite. Exceptions to this are allowed only in the following cases:

- a. Inside the main office trailers
- b. Inside enclosed vehicles
- c. While welding with the use of a welding helmet with over-the-head harness
- d. Where the head protection may otherwise constitute a hazard, e.g. upside-down position, narrow openings, etc.

NOTE: During periods of high winds, insure a chinstrap is obtained, properly adjusted and used.

The cradle of the hard hat shall be adjusted so that the weight of the hat is carried on it. There must be 1-1/4" (inch) clearance between the top of the hat and the head.

No other hats shall be worn under the hard hat.

Do not draw the headband too tight; just snug enough to prevent the hat from tilting. Special liners for winter use should be used.

Inspect the hat daily for broken rim or crown, defective headband or cradle, etc. Replace if any defects are detected, and keep the headband clean.

Do not cut or drill holes in the hat. The hat will be weakened and the protection ability compromised.

Hard hats shall be worn with the bill to the front.

All safety hats must meet ANSI Standard 289.2-1971 Class B and 289.1 Class A; and must not be altered in any way.

The inside liner of the hard hat must be changed a minimum of once a year, or per manufacturers recommendations. The outside shell of the hard hat must be changed a minimum of every 5 years from initial usage, or in accordance with the manufacturer's recommendations.

Western style hard hats, or other novelty styles are not authorized on airport property.

2. EYE AND FACE PROTECTION

- a. Safety Glasses – All personnel shall wear a pair of ANSI approved safety glasses with accompanying side shields at all times, except where otherwise exempted. When working indoors, and no hazards exist, clear lenses (not tinted) shall be worn between sunset and sunrise, or during inclement weather.

Safety glasses need not be worn:

- Inside the main office trailers
 - While wearing full-face respiratory protection: or,
 - When working in dusty environments where safety goggles are needed.
- b. Goggles – Are to be worn when additional protection is required. Those issued will fit over the prescription or safety glasses. This additional protection is required when conducting light grinding operation or where there is a probability of exposure to acid, caustic, chemicals, etc. Proper care of the goggles may consist of:
- Keeping goggles and lens clean.
 - Never wear a pair that has been previously worn by someone else until they have been disinfected.
 - Assure the head bands are in good condition.
 - The lens must be securely held in place in the frame. Inspect them for scratches which may distort vision or cause eye strain.
 - Do not make any repairs to or wear defective goggles
- c. Face Shields – are to be worn when metal sawing, working with chemicals in a laboratory, taking samples, buffing, sanding, light grinding, table saws, etc.

NOTE: Safety glasses and/or goggles must be worn when a face shield is used.

- The headband is the only adjustable feature and should fit snug enough to hold the face shield in place and attached to the hardhat in areas where head protection is required.
- Since the shield is plastic and is easily scratched, it shall be replaced when distortion or eye strain is experienced.
- Employees wearing prescription glasses shall insure that the glasses have side shields and that the glasses and side shields meet or exceed the standards set forth in ANSI Z87.

3. FOOT AND LEG PROTECTION

Safety toe footwear is not generally required, but is highly recommended. However, safety toe boots or safety rubber boots are to be worn when required. The following are footwear requirements:

Acceptable general footwear is limited to sturdy work boots or shoes. A sturdy work boot or shoe is one that has a firm toe and leather, or leather-like uppers that will provide reasonable protection against impact, and also a hard sole that will provide reasonable protection against penetration. The following types of footwear are **not** considered to be a sturdy work boot or shoe:

- a. Athletic or running shoes (including those with leather uppers and/or steel toe).
- b. Moccasins, sandals
- c. Spike or platform heel shoes with canvas or suede uppers
- d. Shoes that expose the toes
- e. Boat shoes
- f. All street shoes

When cutting material with a chainsaw or chop saw, full chaps are required.

Whenever a work, which creates additional hazards for the employee's feet, i.e. using a jack hammer or a jumping jack compactor, employees will be required to wear additional foot protection such as metatarsal guards.

NOTE: Exception to this requirement is granted to secretaries, clerks and other office personnel that work outside the actual construction area. However, those personnel are not permitted into the construction area unless they are wearing the approved footwear.

4. FALL PROTECTION

Personal fall protection is required by every employee when engaged in work more than six (6) feet above a floor or ground level, unprotected by standard guardrails. Contractors must adhere to all requirements in 29 CFR 1926.500. The fall protection requirements are as follows:

- a. Where personal fall protection is to be used, the employer shall be required to submit a written fall protection plan, which shall be reviewed by the CM's Manager of Safety, prior to such fall protection being utilized. All submitted fall protection systems will be required to have a licensed professional engineer (PE) approve the engineering capability of the system.
- b. A full body safety harness shall be accompanied with an attached shock absorbing lanyard or a retractable lanyard, which is secured to an anchorage that will support 5,000 lbs per worker attached to anchor point. Positioning devices such as "belly hooks" alone do not constitute compliance with fall protection. If the "belly hook" is used, it must be used in conjunction with a typical personal fall arrest system as determined by the competent person.
- c. The harness anchor point shall be at or above the same elevation as the user's waist to minimize the fall distance.
- d. Safety harnesses shall be suitable for the particular task being performed and for the hazard to which the employee is exposed.
- e. The initial use of fall protection equipment must be documented and inspected by a competent person. In addition, the Contractor shall follow the manufacturer's recommendations on additional inspections of equipment.
- f. Safety harnesses and safety lines shall be inspected before each use and will be replaced if found defective.
- g. Contractor shall mandate that all employees in scissor lifts, manlifts, and all other human lifting equipment will be tied off at all times.

5. SHIRTS

Shirts with sleeves that cover the shoulders are required at all times. Tank tops or shirts that do not completely cover the upper body are prohibited.

6. TROUSERS

Long trousers are required at all times.

7. HOUSEKEEPING

Daily cleanup of the work area shall be required.

Good housekeeping is an integral part of our safety program. It is the responsibility of all employees, supervisors and workers alike, to maintain a clean and healthful workplace.

Waste materials and debris, such as bread and lunch cups, papers, etc., shall be deposited in the appropriate waste container and those containers are to be emptied on a routine or as needed basis. Oily rags/waste are to be deposited in closed metal containers designated for that purpose.

Oil and liquid chemicals spillage or leakage; spills, of dirt, sand and gravel, or any other form of solid waste spills; are to be cleaned up as they occur.

Field offices, tool rooms, supply facilities, etc., are to be maintained clean and orderly. Floors are to be swept and cleaned on a routine or as needed basis. Personnel having muddy, oily or snow packed footwear shall scrape or otherwise clean the shoes/boots before entering these areas.

Operating supplies are to be stored in approved storage areas. These storage areas shall be maintained in an orderly manner, labeled, and identified.

Empty containers, including drums, are to be removed promptly from the work place, disposed of properly, labeled and identified.

All original containers, and its satellite containers, need to be labeled and placed with the H.M.I.S. coding.

Personal equipment and other items are to be kept in designated areas.

Tools and equipment are to be properly stored in their designated location when not in use. Temporary storage of tools and equipment in operating areas is permitted, provided walkways and working areas are not blocked or restricted and that tripping hazards are not created.

Holes that are dug are to be backfilled immediately or protected by barricades. All excess fill is to be removed.

Temporarily installed floor gratings shall be secured in such a way as to prevent movement or tipping.

Gratings or railings that are removed shall be replaced as soon as practicable. Substantial barricades are to be erected when gratings or railings are removed.

8. SANITATION

Toilets, wash-up facilities and drinking water shall be provided by the Contractor or Subcontractor for the convenience and comfort of their employees in accordance with applicable standards. These facilities shall be secured in such a way as to prevent them from being blown over by high winds or jet blasts.

Portable toilets shall be cleaned, disinfected and re-supplied on a regular basis.

9. LIGHTING

Construction areas, ramps, runways, corridors, offices, shops and storage areas shall be lighted to not less than the minimum illumination intensities while any work is in progress as outlined by OSHA in 29CFR Part 1926.

10. NUCLEAR DENSITY MACHINE

Employees using Nuclear Density Machines must have a visible Radiation Badge. Employees not engaged in the actual testing must be at a minimum 15 feet away from the testing area. Nuclear Density Machines shall not be left unattended. Also, Proper storage and transportation shall be maintained.

11. VESTS

Clean reflective vests shall be worn at all times when airside, on jobsites and while working on roadways.

K. VEHICLE SAFETY

Unattended running vehicles Airside must have the emergency brake engaged. All company owned vehicles or vehicles used on company business are to be driven defensively; using common sense, courtesy and consideration for other motorists. It is the Contractor's responsibility to insure that all vehicles and equipment used on the project are properly maintained and fully functional.

Strict observance of CDA, City of Chicago and State of Illinois traffic laws is mandatory.

Seat belts are to be worn by the driver and all passengers at all times while the vehicle is in motion.

Contractors shall insure that all motor vehicles and equipment, except tracked equipment operating airside (except on service roads), are equipped with an amber MARS light, that shall be operating at all times. The MARS light shall be attached to the top of the vehicle and visible for 360 degrees. All construction equipment operating Airside shall have an operating amber MARS light attached to the top of its cab or shall have an orange and white checkered flag attached to its tallest point. If the checkered flag is used, the minimum size shall be 2' by 2'.

Contractor shall insure that all vehicles and equipment operating on the project shall be equipped with a back-up alarm, audible to a minimum of 200 feet.

Reflective vests shall be worn when working around heavy equipment.

L. FIRE PREVENTION AND PROTECTION

1. GENERAL PRACTICES

Fire protection must be present in accordance with all applicable standards.

No more than a one day (8 hour) supply of flammable or combustible materials shall be stored inside a building.

All portable, flammable and combustible storage containers (55 gallon drums or elevated storage tanks) shall be diked, barricaded and grounded in accordance with applicable standards.

Contractor shall only allow flammable or combustible liquids to be stored in approved metal containers or portable tanks. Containers must be marked as to its contents and placed with the H.M.I.S. coding.

Approved Container means a container of not more than 5-gallon (8.9L) capacity made of metal, having a spring-closing lid and spout cover so designed that it will safely relieve internal pressure and equipped with a flashback arrester in the spout.

The use of plastic containers for storage of flammable or combustible liquids is prohibited.

Good housekeeping practices shall be followed for minimizing the accumulation of combustible scrap and debris. This scrap and debris shall be removed daily.

Smoking is not permitted on any project considered to be Airside or in a City-owned building.

Tarpaulins and visqueen used in construction areas shall be flame retardant/resistive.

Existing fire hydrants shall not be obstructed from view or access and shall not be taken out of service without prior approval of the Chicago Fire Department. At O'Hare, submittal of the ORD Notice to Airport Users form shall be required prior to taking out of service.

Existing sprinkler systems in buildings shall not be taken out of service without prior approval of the Chicago Fire Department. At O'Hare, submittal of the ORD Notice to Airport Users form shall be required prior to taking out of service.

Open flames or barrel fires shall not be permitted at any time on airport property.

2. TEMPORARY HEATING

Portable heaters shall be equipped with an automatic shut off device that will shut the heater off if it tips over. Such heaters, having outputs above 50,000 BTU/hr., shall have either a pilot, which must be lighted prior to main burner ignition, or an electrical system ignition.

Containers of LP-Gas capacity one pound or more, must stand on a firm, substantial and level surface and shall be secured in an upright position to prevent them from being overturned.

3. STORAGE

Where combustible materials must be stored in work areas, they shall be sorted and placed into approved containers. All combustible materials shall be protected from falling sparks from welding and cutting.

Indoor storage shall not obstruct or adversely affect means of exit. No more than one day (8 hours) of compressed gasses shall be stored in any building.

At fuel or combustible material storage areas, suitable extinguishers shall be located within 50 feet of the stored material. Such areas shall also have "No Smoking" signs prominently displayed.

The Chicago Fire Department, Fire Prevention Bureau and the Chicago Department of Aviation prohibits the storage of gasoline and other CLASS I flammables in above ground tanks: CLASS II (diesel) will be permitted provided they are in compliance with the CDA Memorandum, dated May 15, 1991 and the Municipal Code of Chicago, Fire Prevention Bureau, Section 15-24-220, *Motor Fuel Dispensing* and 15-24-221, *Above-ground tanks*.

Sec - 15-24-220 – Motor Fuel Dispensing

All flammable liquid gauging, vending and dispensing devices used for motor vehicle fuel shall be of substantial construction, and firmly secured to a concrete foundation, which shall be so located and designed as to prevent motor vehicles from damaging such devices. Systems wherein continuous pressure is maintained, or water is used to displace liquid from storage tanks, shall not be permitted. The use of above ground storage tanks, tank cars, tank trucks or portable tanks in connection with gauging, vending and dispensing devices, shall not be permitted except for such equipment installed on tank vehicles complying with Section 15-24-1080 and tanks complying with Section 15-24-221 of this code.

Every remote fuel system shall be equipped with a fuel leak detector valve or device located as close as possible to or within the pumping unit. An impact valve or device located as close as possible to or within the pumping unit. An impact valve shall be provided at the base of each dispenser. Such devices and valves shall be listed by a testing laboratory, which has as its primary purpose the testing and evaluation of equipment and materials to meet appropriate standards.

Automatic hose nozzle valves with latch-open devices shall not be permitted. All dispensing devices shall be located so that all parts of the vehicles being served will be on private property. In no case shall the dispensing hose be longer than 16 feet for filling stations and private locations. Where dispensing equipment is used exclusively for trucks or other larger vehicles, automatic hose retrievers may be used, and shall not exceed 40 feet of hose.

Dispensing devices for motor vehicle fuel, except devices used exclusively for dispensing Class II or Class III flammable liquids within occupancy Class H3 buildings, shall not be permitted in buildings hereafter erected, altered or converted.

The dispensing of motor fuels which are Class I flammable liquids directly from tank vehicles shall be permitted only from tank vehicles complying with Section 15-24-1080 and tanks complying with Section 15-24-221 of this code. Retail sales of motor fuel to motor vehicles from tank vehicles shall not be permitted within buildings.

Sec – 15-24-221 – Above-Ground Tanks

The use of above-ground storage tanks, tank cars, tank trucks, or portable tanks in connection with vending, gauging, or dispensing of flammable liquids, other than for equipment installed on tank vehicles complying with Section 15-24-1080, shall be permitted only under the following limited circumstances:

- A. The construction and installation of the tanks must satisfy each of the following conditions and restrictions:***
- 1. Tanks shall be enclosed within a two-hour fire-rated assembly***
 - 2. The tank assembly shall provide 110 percent secondary containment of the flammable liquid. Dikes as required in Section 15-24-170 need not be provided.***
 - 3. Tanks shall be limited to a capacity of 1,000 gallons***

4. *No more than two such above-ground tanks shall be installed or located at any one site*
5. *The tank shall be completely surrounded by a protective guardrail which is located a minimum of two feet away from the tank*
6. *Dispensing of the flammable liquid shall be by means of a pump which is permanently attached to the top of the enclosing assembly described in subsection (A) (1) above and which is equipped with an anti-syphon valve.*
7. *Such tanks shall be located a minimum of ten feet away from any building or property line, except that tanks containing Class II or Class III liquids, as defined in Section 15-24-020, may be located within three feet of a fire-resistive wall without openings.*
8. *Each tank shall bear the words "Flammable – Keep Fire Away", conspicuously on each side of the tank. The coloring of the letters shall be a color which contrasts with the color of the tank and the letters each must be a minimum of four inches high*
9. *A lockable fill cap shall be provided*
10. *Tanks shall be electrically grounded*
11. *Emergency vents conforming with Section 15-24-190B shall be provided for both the primary tank and the secondary containment space.*

B. *Above-ground tanks used pursuant to this section shall not be used for any retail sales*

4. HAZARDOUS WASTE REMOVAL

Contractors, involved in Hazardous Waste removal must meet the requirements of OSHA 29CFR 1910.120 by attending either the 24 hr. or 40 hr. OSHA Hazardous Waste Training and carry their certification card when on site.

5. TEMPORARY BUILDINGS

All temporary sheds built inside other building(s) shall be of non-combustible materials. Corrugated sheet metal is recommended. Plastic, tarpaulins, and wood roofs are prohibited.

6. FIRE EXTINGUISHER AND HOSES

Each Contractor and Subcontractor work area shall be provided with suitable portable fire extinguishers and a fire watch where required.

Each Contractor and Subcontractor must be knowledgeable about the location and use of fire extinguishers, fire stands, and hoses. Contractors and Subcontractors must replace any discharged extinguisher immediately. Annual fire extinguisher inspections must be completed by a qualified person or agency.

The first priority in case of fire is the safety of the personnel. In the event of fire, notify the Chicago Fire Department immediately. The CDA Safety Department Representative shall be notified as soon as practicable by the most expeditious means possible.

7. INSPECTIONS

The Chicago Fire Department may be asked to inspect the project periodically to keep up to date on the route of access to the building for their equipment, availability of water, and access for job personnel. Reports will be provided of inspection results.

M. LADDERS

1. GENERAL

- a. Manufactured ladders must be rated for industrial or heavy duty work.
- b. Job-made ladders must be constructed to conform to established federal and state standards.
- c. Broken or damaged ladders must not be used. Repair or destroy them immediately. Ladders to be repaired must be tagged and removed from the area.
- d. Wooden ladders shall not be painted so as to obscure a defect in the wood; only a clear, non-conductive finish shall be used.
- e. All ladders shall be manufactured from non-electrically conductive materials.
- f. Ladders shall not be placed in front of doors opening toward the ladder, unless the door is open, locked or guarded.
- g. Only one person shall work from a ladder at one time. If two persons are required, a second ladder shall be used.
- h. Ladders shall not be used as scaffold platforms.
- i. Boxes, chairs, etc., shall not be used as ladders.
- j. When ascending or descending ladders, employees shall have both hands free and shall face the ladder, unsecured ladders shall not be left unattended.
- k. Areas around the top and base of ladders must be free of tripping hazards such as loose materials, debris, cords, hoses, etc.
- l. Employees shall be tied off when using either straight ladders or stepladders and when reaching to the side of the ladder at heights greater than six (6) feet.

2. STRAIGHT LADDERS

- a. All straight ladders shall be equipped with non-skid safety feet. The base of the ladder must be set back a safe distance from the vertical unit, approximately one-fourth of the length of the ladder. (4 to 1 ratio shall be used).
- b. All straight ladders must be tied off at the top or otherwise secured to prevent movement. A second employee must hold the bottom of the ladder while the top is being secured.
- c. Ladders used for access to a floor, roof or platform must extend at least 36" above the point of bearing.
- d. Splicing ladders together is prohibited.
- e. Never use a ladder against a vertical pipe unless the ladder is equipped with a specially designed web strap.
- f. Do not place the ladder against movable objects.

- g. Straight ladders shall not be climbed beyond the third step from the top.

3. STEP LADDERS

- a. The top two steps shall not be used.
- b. The legs shall be fully spread and the spreading bars locked firmly in place.
- c. Only one person may use a stepladder at a time.
- d. The use of a stepladder as a straight ladder is prohibited.

N. SCAFFOLDS

All scaffolds shall be erected and used under the supervision of a competent person and shall adhere to all the requirements of 29 CFR 1926.450. With exception to fall protection where fall hazards exceed six (6) feet, fall protection shall be utilized.

The Contractor shall have each employee who performs work while on a scaffold trained by a person qualified in the subject matter to recognize the hazards associated with the type of scaffolding being used and to understand the procedures to control or minimize those hazards.

All scaffolds shall be erected and maintained to conform to established standards and manufacturer requirements. Supported scaffold systems must include screw jacks and mudsills.

Before assembling and dismantling the scaffold, the Contractor must conduct a Job Hazard Analysis (JHA), specifically related to fall protection. The JHA must be submitted to the CM's Manager of Safety for review and comment, and only after review by the CM's Manager of Safety, may the Contractor work without fall protection, if fall protection provides a greater risk.

Scaffolds shall be constructed with sound materials, securely fastened and be capable of supporting at least four (4) times the combined weight of the workers and tools/material which may be placed on them.

Scaffold components produced by different manufacturers shall not be intermixed.

Guardrails, midrails and toe boards shall be installed on all open sides of the scaffold. Guardrails, midrails and toe boards should be constructed from components supplied by the manufacturer. Where this is not possible, sound 2 X 4 inch limber must be used for the guardrails and 1 X 4 inch lumber for the toe boards.

Scaffold planks shall not be less than 2 X 10 inch. They must be cleaned and secured to prevent movement, and shall not extend beyond the outer supports more than 12 inches nor less than 6 inches.

All scaffolds shall be fully planked. No employee shall work from a single plank.

Scaffold planks shall be visually inspected prior to use and if defective, they must be destroyed immediately.

Access ladders shall be provided for each scaffold. Climbing off the end frames or using cross braces for access is not allowed.

Scaffolds shall be secured to the building or structure at intervals which do not exceed 30 feet horizontally and 20 feet vertically.

Overhead protection is required if employees are working on scaffolds and are exposed to overhead hazards. Such protection must be at least 2 X 10 inch planks or the equivalent.

Contractor's competent scaffolding person will post a scaffolding sign placard system to provide awareness of possible hazards near or on a scaffold.

The scaffolding sign placard system implemented by the competent person should include a DAILY inspection with that days competent persons initials, time of day (a.m./p.m.) and repairs or modifications made to the scaffold since the initial erection.

The placement of the placard on the scaffold should have a designated position for all scaffolds. All placards are to be placed at eye level, approximately at a height of 5 feet, adjacent to the access ladders for immediate employee hazard recognition.

- Green placard = Scaffold Safe for Use
- Yellow placard = Scaffold Under Construction, Fall Protection Required
- Red placard = Scaffold Unsafe, Do Not Use

Scaffolds or work platforms shall not be altered by unauthorized personnel.

Contractors are required to develop a written plan if suspended scaffolds are used. The written plan must address all requirements in 29 CFR 1926.450. Additionally, a JHA must be developed and shared with personnel working on the suspended scaffold.

The perimeter around the scaffold shall be barricaded.

1. ROLLING SCAFFOLDS

- a. No one is permitted to ride rolling scaffolds while they are being moved.
- b. Rolling scaffolds shall only be used on level and suitable surfaces. Use leveling jacks, where required, or equivalent.
- c. The height shall not exceed four times the minimum base dimension.
- d. The work platform shall be fully planked. Planks must be cleated, or otherwise secured, to prevent movement.
- e. The scaffold shall have the casters or wheels in the locked position when the scaffold is not being moved.
- f. Obtain assistance when moving rolling scaffolds and assure the travel route is clear of holes and overhead obstructions.
- g. Re-inspect the rolling scaffold if moved more than 200' in an eight (8) hour work shift.
- h. Secure or remove all loose tools, materials and equipment before moving the scaffold.

2. INSPECTION OF SCAFFOLDS

- a. All scaffolds shall be inspected by a competent person after being erected and prior to use.
- b. All scaffolds shall be inspected by a competent person each day prior to being used.
- c. All such inspection shall be documented, including re-inspection when applicable.

O. FLOOR, ROOF OR WALL OPENINGS

Any floor or wall opening, through which a worker, equipment, or material might fall, shall be covered with material of sufficient strength to support any load placed upon it, or guarded on all sides with standard guardrails and toe boards.

If a cover is utilized, it shall be secured to prevent accidental removal or displacement.

The floor covering must be able to support twice the intended load.

A sign shall be posted on the protective covering which states "Floor (Roof) Opening. DO NOT REMOVE.

All temporary protection shall be left in place until permanent protection has been installed or the hazard has been eliminated.

Ladder openings in floors and platforms shall be guarded by standard guardrails and toe boards on all sides.

When it is necessary to work inside the barricade around a floor opening, appropriate personal fall protection shall be worn.

P. PORTABLE HAND AND POWER TOOLS (ELECTRIC AND PNEUMATIC)

1. HAND TOOLS

- a. Employees shall use only those tools, which are in good condition. The tool used shall be for the purpose for which it was designed. When proper and safe tools are not available for immediate work, contact your supervisor.
- b. All tools shall be inspected at regular intervals and tools which develop defects while in use shall be removed from service, tagged, and not used again until deemed to be in safe working condition.
- c. Impact tools with mushroomed heads, such as chisels, drills, hammers and wedges shall not be used until they have been reconditioned.
- d. Hammers, axes, shovels and similar tools shall not be used if the handles are loose, cracked or splintered. The handles shall be replaced and never repaired with tape or wire.

- e. Open-end and adjustable wrenches with sprung or damaged jaws shall not be used. Pipe wrenches with dull teeth shall not be used. Shims shall not be used to make a wrench fit.
- f. Pipe or other extensions shall not be used on a wrench handle for added leverage, unless the wrench is specifically designed for such use.
- g. Hammers with metal handles, screwdrivers or knives with metal continuing through the handle, metal rulers, metal tape lines, or tape lines containing metal wires shall not be used on or near energized electrical circuits or equipment. Insulation on hand tools shall not be relied on to protect users from an electrical shock.
- h. Tools shall not be left lying around where they may cause someone to trip or stumble.
- i. Tools shall not be thrown from place to place or from person to person.
- j. Appropriate buckets, etc., firmly attached to hand lines shall be used to raise or lower tools from one elevation to another.
- k. Tools shall be stored on appropriate tool boards, boxes, racks or compartments when not in use.
- l. When working on or above grating, a suitable covering shall be used to cover the grating to prevent tools, or parts from dropping to a lower level where personnel and equipment are present. The lower danger area should be barricaded or guarded with appropriate warning signs posted.

2. POWER TOOLS (ELECTRIC AND PNEUMATIC)

- a. No repairs or adjustment shall be made on a power tool (electric or pneumatic) unless the tool is disconnected from its power source. If it is necessary to be out of sight of the plug or connection while repairs are being made, attach a tag to the plug or connection.
- b. Never operate a power impact tool unless the retainer ring and/or pin is in place and the head is against a solid object.
- c. Damaged or defective tools must be removed from service immediately.
- d. Power tools shall be hoisted or lowered by a hand line, bucket, etc., never by the cord or hose.
- e. Cords and hoses must be kept out of walkways and off stairs and ladders. They must also be secured with care to prevent them from being damaged by other equipment or materials.
- f. Safety switches shall not be bypassed or made inoperable.
- g. All proper guards must be in place at all times.

3. ELECTRIC TOOLS

- a. The non-current carrying metal parts of electric tools such as drills, saws and grinders shall be effectively grounded when connected to a power source, unless:
- b. The tool is an approved double-insulated type, or
- c. The tool is connected to the power supply by means of an isolating transformer or other isolated power supply, such as a 24-volt DC system.
- d. All power tools shall be examined prior to use to insure general serviceability and the presence of all applicable safety devices. The electric cord end electric components shall be given an especially thorough examination.
- e. Electric tools shall not be used where there is a hazard of flammable vapors, gases or dusts. Assure the ground prong is present.

4. PNEUMATIC TOOLS

- a. Pneumatic tools shall only be operated by competent persons who have been trained in their use. Documentation of training shall be available onsite.
- b. Pneumatic tools shall be secured to the hose by some positive means; also, each hose connection must be provided a safety-retaining clip.
- c. These tools shall never be pointed at another person.
- d. Compressed air shall not be used for cleaning purposes.
- e. Compressed air shall not be used to blow dust or dirt from clothing.
- f. Assure all appropriate personnel protective clothing is worn, including hearing protection, when necessary.
- g. Prior to making adjustments or changing air tools, unless equipped with quick-change connectors, the air shall be shut off at the air supply valve ahead of the hose. The hose shall be bled at the tool before breaking the connection.
- h. Metal-reinforced hose shall not be used near energized equipment. When this type hose must be used, proper clearances shall be maintained.

5. GRINDERS

- a. Stationary grinders shall be mounted securely on substantial floors, benches or foundations to prevent excessive vibration or tipping.
- b. Enclosures for grind wheels are required.
- c. Tool rests shall be kept 1/8" (inch) from the wheel and gap distance shall be adjusted for wheel wear.
- d. The abrasive wheel, disc, etc., shall meet or exceed the maximum RPM rating of the grinder.

- e. Immediately before mounting, all wheels shall be closely inspected by the user to assure the wheels have not been damaged. Any wheel that shows damage or has been dropped on a hard surface shall not be used.
- f. Guards are required on all portable grinders when the diameter of the wheel exceeds 2" (inches) in diameter.
- g. The abrasive wheel and accessories shall meet or exceed the maximum RPM of the grinder.
- h. The abrasive wheel shall be closely inspected for damage prior to mounting on the grinder.
- i. Abrasive grinding wheels shall not be dropped into a gang box, onto concrete, or shall not have other materials or tools dropped on them.
- j. When a grinder is first used at the beginning of the job, it should be brought up to operating speed with the wheel oriented so that any breakage will be deflected away from the user and other personnel.

6. MACHINE GUARDS AND SAFETY APPLIANCES

- a. Machine guards on components such as flywheels, belts and pulley drives or pump couplings shall not be removed unless the equipment is de-energized and tagged and locked out.
- b. If guards are removed to make repairs, the guards shall be replaced before the machinery is put back in operation.
- c. Only properly trained and authorized personnel shall make any adjustments to safety appliances such as relief valves, vents or overspeed trips.
- d. Safety appliances such as relief valves, vents or overspeed trips, etc., shall not be bypassed or made inoperative without express concurrence of management and the project safety representative.

Q. MATERIAL HANDLING AND STORAGE

1. POWERED INDUSTRIAL TRUCKS (FORKLIFTS)

When the use of a forklift is called for, the operator of the forklift must be certified in its use.

OSHA regulations (1926.602d) states: "the employer shall ensure that each powered industrial truck (forklift) operator is competent to operate a powered industrial truck (forklift) safely, as demonstrated by the successful completion of the training".

The operator must have his certification card, which signifies successful completion of this training, on his person whenever operating the forklift.

2. STORAGE

All material must be properly stacked and secured to prevent sliding, falling or collapse. Aisles, stairs and passageways must be kept clear to provide for the safe movement of employees and equipment and to provide access in emergencies.

Pipe, conduit and bar stock shall be stored in racks or stacked and blocked to prevent movement.

The quantity of materials stored on scaffolds, platforms or walkways must not exceed that required for one day's operations or the rated capacity of the scaffold or platform

Protruding nails must be bent or removed when forms or materials are stripped or uncrated.

Materials shall not be stored in such a manner that they block access to fire exits, electrical panels or emergency equipment.

3. MANUAL LIFTING AND CARRYING

When lifting heavy or awkward objects, the employee shall obtain the assistance from another employee or use power-lifting equipment.

When two or more persons are carrying an object, each employee, if possible, shall face the direction in which the object is being carried.

When two or more employees are lifting or pulling together, one person shall give the signals for the group. Never carry an object alone that prevents your seeing the route of travel.

When lifting an object, crouch or squat with your feet close to the object to be lifted, secure good footing with feet apart, take a firm grip with the palms, bend the knees, keep the back straight with the chin tucked in, lift by using the leg and thigh muscles, and hold the load close to your body.

4. PAINTING/CHEMICAL USE

The Contractor shall take appropriate measures to minimize the spread of airborne paint particles, i.e., hand tarps/visqueen, cover other equipment/material and cease outside spraying during windy conditions.

The Contractor shall provide adequate ventilation in enclosed areas.

Employees, whether applying or stripping paint, shall use all required personal protective equipment – when in doubt contact your supervisor.

Consult the Material Safety Data Sheet (MSDS) for all precautionary measures.

No spray painting will be permitted in the presence of open flames (acetylene torches, gas burners, welding operations, heaters, furnaces, boilers, etc.) due to the possibility of igniting flammable materials contained in the paint products.

Please refer to VII (B) for detailed information on the respiratory safety requirements.

R. BARRICADING / TRAFFIC CONTROL

1. BARRICADES

Barricades shall be maintained around excavations, confined spaces or other hazardous areas at all times.

Barricades may be 2" X 4" planks attached to upright stations or yellow and black ribbon. If 2" X 4" planks are used, they shall consist of handrails and midrails. Handrails shall be 42" from the floor or ground and the midrail shall be placed 24" from the floor or ground.

If the yellow and black "caution" tape is used, it shall be the plastic-coated, woven nylon type. Plastic or polyethylene type shall not be used.

Snow fence shall be used in lieu of barricade tape at construction areas where pedestrian traffic is present or which can cause caution tape to be insufficient.

2. TRAFFIC CONTROL

When working in or near a public road or street, barricades shall comply with IDOT Standards/Specifications for Traffic Control. This shall include, but not be limited to, spacing, color-coding, size and lighting.

All barricaded areas shall be inspected twice per week, once during daylight hours and once during the hours of darkness. The inspection form shall be completed after each inspection and forwarded to the CM's Manager of Safety.

When flag persons are used, they shall have been trained and certified a flag person by a Laborer's Union or some other certifying agency. The flag person shall wear an appropriate traffic vest, PPE and be equipped with a traffic paddle or flag during daytime activity and an illuminated wand for night work. Any employee functioning as a flag person shall have in their possession a current certification card. Employees not trained and certified may not perform flagging duties.

Reflective vests shall be worn by all personnel working on Roadways, Taxiways, Runways and Projects where employees are in the area of vehicular traffic and/or airport Operations.

A daily traffic log must be completed and signed off. These records must remain on file for review.

S. SAFE USE OF EQUIPMENT/GENERAL EQUIPMENT

1. Any Contractor employee operating a piece of equipment that the employee sits in will be required to wear a functional seatbelt, unless the equipment lacks ROPS (Rollover Protection System) or is designed for standup operation.
2. Safety glasses and reflective vests shall be worn while operating equipment. Hardhats are required when outside a protective cab.
3. Functional fire extinguishers will be secured and located in all contractor equipment.
4. Daily equipment inspection sheets shall be completed by the operator and remain in the cab, available for review upon request.
5. Functional amber MARS lights must be activated at all times while equipment is operating, (Exception: Tracked Equipment).
6. Functional back up and movement alarms must be operating on all moving equipment.
7. All Contractor's operators must be trained on the proper operation of the piece of equipment they are using, and certified or licensed where required.

8. All vertical or articulating machinery that is used to lift workers or equipment must be equipped with a vertical and horizontal motion detection signal.
9. Impaired visibility caused by the equipment or the location of the equipment shall require the use of a spotter for the movement of equipment or vehicles on the construction site.

T. GENERAL SAFETY COMMUNICATION

Regardless of the method of communication, all Contractor's supervisors and/or foreman must be able to verbally communicate with their employees. If there are employees on the jobsite that choose to communicate with a language other than English, then the Contractor shall, at all times work is conducted, have supervisory personnel on the jobsite that is proficient in the chosen language of the employees and English. The ability to verbally communicate with all employees is paramount to safety training and hazard abatement.

U. STEEL ERECTION

Safety Standards are governed by OSHA, Section 1926R. Effective January 18, 2002, Subpart R was revised. Contractors involved with steel erection are required to comply with all requirements of Subpart R. The key provisions of the revised steel erection standard include:

1. The site layout and construction sequence
2. Site-specific erection plan
3. Hoisting and rigging
4. Structural steel assembly
5. Column anchorage
6. Beams and columns
7. Open web steel joists
8. Systems-engineered metal buildings
9. Falling object protection
10. Fall protection (The airport 6' fall protection rule shall supersede the 1926R fall protection requirements.)
11. Training

This subpart addresses hazards associated with, but not limited to hoisting, landing and placing decking; column stability; double connections; working under loads; landing and placing steel joists and falls to lower levels. These provisions are specifically addressed to ALL EMPLOYEES exposed to any of the conditions aforementioned and is NOT specific to the iron workers trade only.

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VII. HEALTH PRECAUTIONS

A. HAZARD COMMUNICATION

1. DEFINITIONS

Article: A manufactured item which is formed to a specific shape or design during manufacturer has end use functions dependent in whole or in part upon the shape or design, and which does not result in exposure to a hazardous chemical under normal conditions of use.

Chemical: Any element, compound or mixture of elements and/or compounds, excluding articles, food, drugs or cosmetics intended for personal consumption, wood, wood products, tobacco and tobacco products.

Name: Scientific designation of a chemical in accordance with the nomenclature system of the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS).

2. POLICY

This program is designed to insure that the Contractor provides information to his employees at all levels regarding chemical projects to which they are exposed. It will be accomplished by the following:

Contractors shall maintain a list of all hazardous chemical products used and stored onsite. A copy of all MSDS shall be submitted to the Contractor safety representative prior to being brought onto the site. A master index will be located in the CM's Manager of Safety's and the Contractor's office.

Appropriate labeling on containers of all chemical materials used. All labeling shall conform to the National Fire Protection Association (NFPA) systems.

Making available Material Safety Data Sheets (MSDS's) for all chemical products used at the airport.

Employee training to recognize and interpret labels, warnings, color-coding, signs, etc., that are affixed to containers so that they can properly protect themselves against potential hazards.

Employee training to understand the elements of the Material Safety Data Sheet and to recognize possible risks to health and physical harm.

This written program shall be made available, upon request to employees, their designated representative(s) and all City of Chicago, State and Federal officials who have proper authority.

3. CHEMICAL PRODUCT INVENTORY LISTS AND MATERIAL SAFETY DATA SHEETS

A list of all hazardous chemicals and a copy of MSDS's used shall be maintained in the CM's Manager of Safety's office.

Each Contractor shall be required to maintain a copy of a chemical inventory and a copy of all MSDS's for chemicals used by their employees or employees of their subcontractors. These copies will be maintained onsite.

4. LABELS

Hazardous chemicals received onsite shall be properly labeled by the manufacturer/supplier. If labels are not provided, the supplier shall be contacted to get the specific labels. Containers will not be received onsite without labels. These labels must provide the following information:

- a. Identity of the chemical projects or substances in the container
- b. Hazard Warnings
- c. Name and address of the manufacturer or other responsible party
- d. The labels must not be removed and must be replaced if illegible

All containers of hazardous chemical projects, including laboratory bottles, solvent cans and dispensers must be labeled and must be of proper construction in order to contain the chemical.

5. EMPLOYEE TRAINING AND INFORMATION

Contractors shall provide to employees whose work includes the use of hazardous chemicals training in the handling of chemical products. There will be periodic reviews of the training program.

The training program will provide instruction in the following:

- a. The location and availability of the MSDS sheets
- b. Explanation of the MSDS data and manufacturer's label
- c. Methods and observations to detect the presence, or release, of hazardous chemicals in the work area.
- d. Protection measures for employees. This includes safe work practices and available protective equipment such as face and eye protection, outerwear, gloves and respirators.

6. INFORMING OTHER CONTRACTORS

Information concerning the location and hazards of hazardous chemicals present in the work area must be made available to other contractors. Copies of the appropriate Material Safety Data Sheets shall be given to the Contractor's supervisory personnel by the Contractors Safety Representative when it is apparent that contractor employees are working in an area where hazardous chemicals are used.

B. RESPIRATORY PROTECTION

1. RESPONSIBILITY

The Contractor shall be responsible for administration of an effective respiratory protection program. They may delegate the authority for this assignment to the safety specialist. However, it remains the Contractor's responsibility to assume full compliance with all sections of this program.

2. HAZARD ASSESSMENT

Proper written assessment of the hazard is the first important step to protection. This requires thorough knowledge of the process, related equipment, raw materials and end products and by-products which can possibly create an exposure hazard. Air samples must be taken with proper sampling instruments during all conditions of operation to assess the atmosphere for oxygen content in concentration levels of particular and/or gaseous contaminants. The sampling device and the type and frequency of sampling will be dictated by the exposure and operating conditions.

3. HAZARD CONTROL

As operating conditions within an active construction site make many engineering controls difficult, if not impossible to use, considerable emphasis must be given to providing proper and adequate personal protective equipment. However, consideration should be given to using less toxic materials in the process, providing suitable exhaust ventilation or isolation.

4. SELECTION

Since there are many types of respiratory protective devices, it is imperative that they be selected with utmost care to insure that the proper protection is afforded and that personnel are thoroughly trained in their use and limitations. Only equipment approved by the National Institute for Occupational Safety & Health (NIOSH) will be used.

Respiratory protective devices vary in design, application and protective capability. The user must, therefore, assess the inhalation hazard and understand the specific use and limitations of available equipment to assure proper selection. Respiratory protective devices fall into three classes; air purifying, supplied air and self-contained breathing apparatus.

5. TRAINING

For safe use of any respiratory protective device, it is essential that the user be properly instructed in the selection, use and maintenance. Both supervisors and workers shall be so instructed by competent persons. Minimum training shall include the following:

Instruction in the nature of the hazard, whether acute and/or chronic, and an honest appraisal of what might happen if the proper device is not used.

Explanation of why a more positive control is not immediately feasible. This shall include recognition that every reasonable effort is being made to reduce or eliminate the need for respiratory protection.

A discussion of the devices, capabilities and limitations.

- a. Instruction and training in actual use (especially a respiratory protective device for emergency use) with close and frequent supervision to assure that it continues to be properly used. Classroom and field training to recognize and cope with an emergency situation.
- b. Training shall provide the employees an opportunity to handle the device, have it fitted properly, test its face piece to face seal, wear it in normal air for long periods and finally, to wear it in a test atmosphere. Respiratory protective devices shall never be worn when a satisfactory face seal cannot be obtained. There are many

conditions that may prevent a satisfactory face seal from being worn, such as excessively long side burns, beard, temples on glasses, or an unusually structured face.

All training will be documented and that documentation maintained onsite.

6. INSPECTION, MAINTENANCE AND REPAIR

Proper inspection, maintenance and repair of respiratory protective equipment is mandatory to assure success of any respiratory protection program. The precise nature of the program will vary widely depending on the type of equipment involved. The goal is to maintain the equipment in the conditions providing the same effectiveness it had when manufactured.

All equipment must be inspected periodically before and after use. For equipment used only in emergencies, the period between inspections should be no more than one month. A record shall be kept of all inspections by date with the results tabulated. The manufacturer's recommendations shall be followed precisely.

All respiratory protective equipment shall be cleaned and disinfected after each use. Other maintenance includes replacement of disposal elements, such as filters and cartridges whenever such replacement is necessary. Following the cleaning of equipment, it shall be placed in a plastic bag to maintain it free of contamination.

Replacement of other than disposable parts and any repair shall be done only by personnel with adequate training to insure that the equipment is functionally sound after the work is complete.

7. MEDICAL SURVEILLANCE

Workers will not be assigned to any operation requiring respiratory protection until a physician has determined that they are physically and psychologically capable of performing the work using the respiratory protective equipment. Documentation of the physical exams will be maintained onsite.

C. HEAT STRESS

1. DEFINITIONS

Heat stress - A combination of environmental conditions, work demands and clothing requirements that tend to increase body temperature. Heat stress can diminish work performance and adversely affect worker health and safety.

Note: Environment conditions include high temperature/ high humidity and heat from hot surfaces.

Heavy Work - Heavy lifting, pushing or pulling as in pick and shovel work or climbing ladders and stairs, turning valves and lifting or moving heavy objects.

Moderate Work - Sitting with heavy arm or leg movement, standing with some walking about or walking about with moderate lifting/pushing and descending stairs/ladders, installing insulation or manual valve alignment (ease).

2. RESPONSIBILITY

Supervisor shall:

- Plan work tasks to reduce heat stress potential
- Emphasize the safe work practices in the Heat Stress Policy
- Insure the use of the “buddy system” and monitoring in areas where heat exposure is severe due to protective clothing requirements.

Employees shall:

- a. Inform their supervisor of any medication which may preclude the employee from working in a heat stress area. These medications include:
 - Diuretics
 - Vasodilators
 - Central nervous system inhibitors
 - Anticholinergic medications
 - Antihistamines
 - Muscle relaxants
 - Tranquilizers
 - Sedatives
 - Amphetamines
 - Atropine

- b. Inform their supervisor of recent sunburns or any illness involving fever, vomiting or diarrhea as these conditions may dehydrate a person.

- c. Immediately notify the person in charge and leave the area when feeling discomfort from heat stress, e.g.,
 - Dizziness
 - Headache
 - Nausea
 - Fainting

Note: When working outside, rest in the shade

- d. Follow these directions to reduce the potential of heat stress problems.
 - Increase fluid intake
 - Do not skip meals
 - Avoid alcohol use

3. DESCRIPTION OF HEAT STRESS

Under heat stress conditions, the body produces heat faster than it can be shed to the surrounding environment or when the body absorbs heat from the surrounding environment. The body must maintain itself between 98 degrees – 100 degrees F. To do this, the body increases blood flow to take heat from the muscles to the skin and increase perspiration to cool by evaporation.

4. RECOGNITION AND TREATMENT OF HEAT ILLNESSES

| ILLNESS | SYMPTOMS | TREATMENT |
|-----------------|---|---|
| Heat Stroke | Dry skin, usually red; mottled or cyanotic; confusion, loss of consciousness; convulsions, fatal if treatment is delayed. | Immediate and rapid cooling by immersion in chilled water or wrapping in a wet sheet. |
| Heat Rash | Red rash with blister-like bumps; prickling sensation during heat exposure. | Intermittent relief from heat, maintain dry skin, prevent secondary infection. |
| Heat Cramps | Painful spasms of muscles used during work; onset during or after work hours. | Drink more water, eat salty foods. |
| Heat Syncope | Fainting while standing, erect and immobile in heat. | Remove to cooler area; rest in recumbent position; drink water. |
| Heat Exhaustion | Fatigue; nausea, headache, giddiness, skin clammy and moist; may faint with rapid pulse and low blood pressure. | Remove to cooler area. Rest in reclined position; administer fluids by mouth. |

5. TRAINING

Sufficient annual training shall be provided to cover heat stress problems employees could experience. The training should include:

- Recognition and treatment of heat stress
- Safe work practices
- Instrumentation for heat stress monitoring
- Physiological heat exposure limits/WBGT
- Documentation of training will be maintained onsite

D. CONFINED SPACE ENTRY

All confined space work shall be done under the supervision of a competent person.

1. INTRODUCTION

The Contractor shall have the responsibility for recognizing areas considered to be a confined space and for notifying employees assigned to such locations. The Contractor shall be responsible for providing equipment and special instructions for the workmen, such as ventilating units, respirators, safety belts, lifelines, all atmospheric testing and testing equipment, and all conformance to all applicable OSHA standards.

The "buddy" system shall be used and an observer shall tend all workmen in a confined space. Rescue procedures shall be agreed upon beforehand. The Contractor shall submit a complete Confined Space Entry Program to the CM's Manager of Safety prior to starting

work. The Contractor shall also be responsible for notifying the Chicago Fire Department prior to beginning work in a confined space. Further, Job Hazard Analysis documentation and discussion related to specific confined space operations shall be submitted to the CM's Manager of Safety.

The hazards encountered and associated with entering and working in confined spaces are capable of causing bodily injury, illness, and death to the worker. Accidents occur because of failure to recognize that a confined space is a potential hazard. Hazard potential is magnified when employee workspaces, which previously have been free of contamination, are for various reasons subject to conditions which alter their normal atmospheres. An employee's awareness of conditions in and around his or her work areas must be instilled in those working in confined spaces. An understanding of the nature of any problem shall be communicated to affected employees by their employers, so that an awareness of entry into the space will be achieved.

2. DEFINITION

A confined space is defined as any space having limited entry or exit (egress) which may be subject to the development of any oxygen-deficient atmosphere or the accumulation of toxic or flammable contaminants. Confined spaces may include, but are not limited to the following structures or enclosures: Silos, boilers, vaults, storage tanks, plating and degreasing tanks, process vessels, bins, sewers, manholes, catch basin, pipelines, underground utility vaults and ducts. Also included are open top spaces such as pits, tubs, tunnels, press pits and underground shafts or other excavations which may be poorly ventilated and permit the presence of a hazardous atmosphere.

3. HAZARDS

A variety of hazards may be associated with a confined or enclosed space, and knowledge of them is essential when evaluating the condition of such spaces. A list of these hazards include:

- a. An atmosphere deficient in oxygen due to its displacement by other gases or vapors. An oxygen-deficient atmosphere is one, which contains less than 19.5% oxygen by volume. An oxygen-enriched atmosphere exceeds 23.5% oxygen.
- b. A Lower Explosive Limit (LEL) that exceeds 10%.
- c. Toxic, flammable, or explosive dusts, gases, vapors, fumes, smoke or mists.
- d. Electrical equipment such as tools or lighting which may present the possibility of electrical shock or serve as a source of ignition.
- e. Exposure to extremes in temperature.
- f. Limited access opening which may hinder the entry of rescue personnel.
- g. The operation of tumblers, mixing blades, crushes, agitators, pumps, rams or conveyors.
- h. Insufficient illumination.
- i. Obstacles of distance between the work location and point of exit.
- j. Hydraulic oils, gases or other fluids contained within pressurized lines.

- k. Improper, inadequate, or poorly maintained respiratory protective or rescue equipment.
- l. Absence of an attendant stationed outside of the entrance.
- m. Lack of ability to communicate between inside workers and outside personnel.

4. PROCEDURES FOR ENTRY

The following are conditions for entry into all confined spaces:

Break or block supply lines or lock out valves on those supply lines servicing the vessel or space. The flow of material into confined spaces while employees are working there must be eliminated. Caution must be exercised while breaking supply lines to prevent exposure to hazardous material they may contain.

Lock and tag out energy sources to moving parts inside the space such as agitators, converters, or mixing blades.

Before entry, the confined space shall be purged by leaving access doors or hatches open. Natural ventilation is then possible, or mechanical ventilation may be provided by a portable blower. When portable blowers are used, intakes to this air-moving equipment must be positioned so that only clean air is introduced into the confined space. Any accumulation of material which could make the atmosphere hazardous, such as sludge or liquids, shall be removed before entry where possible. Air sampling is required prior to any entry into a confined space.

Mechanical ventilation must be provided where welding or cutting is done in confined spaces. All gas or oxygen cylinders and manifolds shall be located outside the confined spaces.

When used in confined spaces, portable lights and electric tools shall be grounded unless they are UL approved double insulated. Work in damp, confined spaces or metal tanks or enclosures requires exceptional protection from electrical hazards. Ground fault circuit interrupters, battery-powered equipment, or approved protected low voltage systems shall be used.

Sufficient lighting shall be provided in the confined space without use of matches or an open flame. Portable lights shall have protective guards to prevent bulb breakage. Explosion-proof plug-in lights, flashlights, and electric motors shall be used in confined spaces where flammable materials are present.

Where contact with any contaminants which could result in skin or eye irritation is possible, protective clothing shall be worn to prevent contact. This may include face shields, goggles, protective hats, gloves, sleeves, and rubber boots and rain jackets. Head protection is required except where it might constitute a hazard.

Prior to entry, workers shall be made familiar with diagrams and plans of the interior of the confined space, ladder locations, access openings and process lines.

The area surrounding the confined space entry point shall be kept clear of all debris of equipment, and the number of employees entering the space shall be kept to a minimum.

The entry permit must be hung at point of entry. A written record must be maintained at the point of entry of the name and time entered/exited.

When entering confined spaces, employees shall attach their personal identification badges to the confined space entry permit. They shall reclaim their badge upon leaving the confined space.

When an employee enters any confined space such as, but not limited to, a bin, silo, hopper or tank which contains bulk or loose material that could engulf the employee, the supply of material shall be shut off and the discharge shall be shut off if feasible.

The employee shall wear an approved, full safety body harness attached to an approved lifeline. The lifeline shall be strung from overhead and down to the employee where it is attached to the "D" ring on the full safety body harness and kept reasonably taut at all times. When this is done, another employee shall be in sight or within hearing distance.

Safety harnesses and lifelines shall be so attached to the employee entering the confined space that his body cannot be jammed in the opening.

Whenever employees are in a confined space, there shall be an attendant immediately outside the opening who shall have been trained in attendant duties and who shall be performing no functions other than that of an attendant.

Communications, such as visual, voice, or signal line shall be maintained between a rescue person outside the confined space and all employees inside the space. A mechanical means to lift the employee out of the confined space shall be provided.

In order to enhance communications, work being performed in confined spaces shall be planned far enough in advance so that responsible for the testing will schedule it accordingly.

5. AIR SAMPLING

Air sampling is necessary before entry is made. It is the responsibility of the Contractor whose employees will be entering any confined space (new or existing) to provide testing.

An extension wand attached to the air monitor shall be used when entering a horizontal type confined space.

Carbon monoxide levels must be monitored regularly in enclosed areas when temporary heaters, construction equipment and portable generators are being used. Should gases, vapors, fumes, ducts or mist levels be above the allowable OSHA Threshold Limit Values (TLV), the Contractor shall reduce them through engineering controls or have a respiratory program in place. In either case, the Contractor must provide maximum protection for those exposed, and comply with all City of Chicago, State of Illinois and Federal regulations.

Responsibilities for air sampling are as follows:

- a. Contractor supervision has the responsibility for sampling air in the confined spaces they plan to access. Training for this duty will be provided by the Contractor.
- b. Copies of test results shall be maintained onsite.

Where possible, testing of confined spaces must be conducted from outside the space. Where remote testing is not possible and entry must be made in order to perform the appropriate testing, respiratory protection, lifelines, and other necessary protective equipment and procedures designed for atmospheres immediately dangerous to life or health must be utilized while conducting these tests.

At no time shall sources of ignition be introduced into questionable atmospheres while testing is being done. This requirement will necessitate the use of spark proof flashlights in areas being tested, if such lighting is needed.

Prior to entry, all confined spaces shall be monitored and the atmosphere shall not exceed the following limits:

| | |
|------------------|--|
| Oxygen | Not less than 19.5% or more than 23.5% |
| Combustible | 10% of LEL |
| CO | 35 P.P.M. |
| H ₂ S | 10 P.P.M. |

Note: The Contractor shall be responsible for the testing of confined spaces, the issuing of permits, the training of employees, and the enforcement of all applicable standards.

E. DUST CONTROL PLAN

Each Contractor is responsible for controlling dust that:

- a. Might endanger the health of employees or others.
- b. Creates a nuisance to the general operations of the airport and public safety.
- c. Creates a nonconformance to environmental regulations.

Should the dust levels be above the allowable Threshold Limit Value (TLV), the Contractor shall reduce them either through engineering controls, watering trucks, or sweepers. The Contractor must provide maximum protection for those exposed to dust, and comply with all City of Chicago, Chicago Department of Aviation, State of Illinois and Federal regulations.

The Contractor is responsible for keeping service roads, taxiways, and runways on which they are using or working, clean and free of debris.

F. HEARING PROTECTION

Each employee shall wear hearing protection in areas designated as high noise areas.

Contractors, foremen, supervisors and managers are responsible for insuring that each employee under their direction fully complies with the provisions of this program.

1. NOISE ASSESSMENT

Contractor shall be responsible to conduct general noise level surveys and personal monitoring to assess the need for hearing protection.

A survey shall be made initially and whenever there is a major change in operating conditions. If the survey indicates high noise areas (90 dBA or greater), the area shall be posted for hearing protection requirements and periodically, employees shall use personal monitors to identify inclusion in the program. The survey and personal monitoring shall be performed using sound level meters or noise dosimetry under the "A" weighing scale (slow response).

If the 8-hour time weighted average (TWA) equals or exceeds 85 dBA, the employee shall be enrolled in the Hearing Conservation Program.

The Contractor shall notify each employee exposed at or above the action level of an 8-hour TWA or 85 dBA, of the result of the monitoring.

2. HEARING PROTECTORS

The Contractor shall make hearing protectors available to all employees exposed to an 8-hour time weighted average of 85 dBA or greater at no cost to the employees. Hearing protectors shall be replaced as necessary.

Each supervisor, operator, etc., shall insure that hearing protectors are worn in all posted areas by all employees.

Employees shall be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors (three minimum) where possible.

Training in the use and care of all provided hearing protectors shall be given to employees.

Proper initial fitting shall be assured and the correct use of all hearing protectors shall be supervised.

3. EMPLOYEE TRAINING

The Contractor shall provide a training program of all employees who are exposed to a noise level at or above an 8-hour time weighted average of 85 decibels. Training shall be documented with the documentation being maintained onsite

The training program shall be repeated annually for each employee working in the affected area. Information provided in the training program shall be updated to be consistent with changes in protective equipment and work processes. A copy of the training program and documentation of attendance shall be provided to the CM's Manager of Safety.

The training program shall include:

- The effects of noise on hearing

The purpose of hearing protectors, including the advantages, disadvantages, and attenuation of various types, plus instruction on selection, fitting, use and care.

G. DRUG-FREE WORKPLACE

1. POLICY

All employees shall report to work in a physical condition that will enable them to perform their work in a safe and efficient manner.

All employees are prohibited from using, possessing, dispensing or receiving "prohibited substances" on CDA facilities.

The term "prohibited substances" (as used throughout this policy) means and includes illegal drugs (including controlled substances, look-alike drugs, designer drugs, synthetic drugs, unauthorized prescription drugs, prescription drugs not used for their prescribed purpose and alcohol).

The term CDA Facility (as used throughout this Policy) includes all property, facilities, land, building, structures, automobiles, trucks and other vehicles including construction job sites over which CDA has responsibility.

All employees are prohibited from reporting to work with a “measurable amount of a prohibited substance” in their system.

The term “measurable amount of a prohibited substance” (as used throughout this policy) is defined in the following table:

2. SCHEDULE OF MEASURABLE AMOUNTS OF PROHIBITED SUBSTANCES

| | <u>Per GC/MS Test</u> | <u>Per Emit Test</u> |
|--------------------------------|-----------------------|----------------------|
| Amphetamines /Methamphetamines | 1000 ng/ml | 500 ng/ml |
| Barbiturates | 300 ng/ml | 150 ng/ml |
| Benzodiazepines | 300 ng/ml | 150 ng/ml |
| Marijuana | 100 ng/ml | 15 ng/ml |
| Cocaine | 300 ng/ml | 150 ng/ml |
| Methaqualone | 300 ng/ml | 150 ng/ml |
| Propoxyphene | 300 ng/ml | 150 ng/ml |
| Methadone | 300 ng/ml | 50 ng/ml |
| Opiates | 300 ng/ml | 300 ng/ml |
| Phencyclidine | 25 ng./ml | 25 ng/ml |

Any employee taking “prescribed medication” which may affect their ability to perform their duties in a safe and efficient manner” is required to notify their immediate supervisor that such medication is being taken.

The term “prescribed medication” which may affect an employee’s ability to perform the employee’s work in a safe and efficient manner, means any prescription medication where the label indicates that the drug may cause drowsiness, imbalance, or includes a caution with regard to operating a vehicle or machinery, or may impair their ability to perform the work safely and efficiently.

3. ENFORCEMENT OF RULES

The CDA or the CM, in order to enforce the rules, reserve the following rights:

a. Right to Inspect.

The CDA or the CM have the right at all times, under all circumstances, and for any reason to inspect CDA controlled premises.

The CDA or the CM has the right to inspect employees and their personal property, including but not limited to; their lockers, baggage, desks, tool boxes, clothing and vehicles located on CDA controlled premises if, and only if, the CDA or designated representative have a reasonable suspicion that the employee has violated some portion of this policy.

The CDA or the CM will report the results of any search or inspection, which results in the discovery of prohibited substances, to the appropriate law enforcement authorities.

b. Right to Jobsite Access.

The CDA and its authorized representatives, or order to enforce the rules, reserves the following rights:

Note: The designated CDA representative has the same authority and rights as the Construction Manager (CM) under this section.

The Construction Manager has the right at all times, under all circumstances, and for any reason to access any jobsite. Once site is accessed, CDA or the designated representative can operate as it deems fit to maintain a safe jobsite.

c. Right to Require Drug / Alcohol Tests

The CDA or designated representative has the right to require a Contractor's employee to submit to drug and alcohol testing (as described below) if any one or more of the following occurs.

- If the employee is involved in or has directly or indirectly caused an "accident". The term "accident" shall mean any event or occurrence resulting in injury to a person or damage to property.
- If the employee is involved in or has directly or indirectly caused an "incident". The term "incident" shall mean an event or occurrence which has all the attributes of an accident, except that no injury was caused to a person or damage caused to property.
- If CDA or designated representative have a "reasonable suspicion" that a violation of this policy has occurred. The CDA or designated representative shall have such a "reasonable suspicion" in the event of erratic behavior such as noticeable imbalance, incoherence, and/or disorientation, or body odors of the employee.

d. Right to Obtain Information Concerning Prescription Medication.

The CDA or designated representative reserves the right to request an employee to identify the type of prescription medication and the dosage of prescription medication which is being taken by the employee and the period of time during which the employee expects to be taking the medication. If the CDA or designated representative determines that the prescription medication is likely to impair the employee's ability to perform the employee's assigned work safely and efficiently, then the CDA or the CM's Manager of Safety may ask that the employee be reassigned to a project not on CDA property.

4. PROCEDURES FOR DRUG OR ALCOHOL TESTING

If an employee is requested to submit to a drug and alcohol test, then the testing will be conducted in the following manner:

a. When the Tests will be Required

The CDA or CM's Manager of Safety, through the Contractor's personnel (i.e., A Corporate Officer, Risk Manager, Manager of Safety, Superintendent, General Foreman and/or Foreman) will orally request the employee to submit to a drug and alcohol test and explain to the employee the reason why the tests are being

requested. The employee then is obligated to promptly submit to the tests as soon as practicable. In this regard, a representative will be entitled to accompany the employee to the Contractor testing facility.

b. Who will take the samples

The tests on the samples shall be conducted by an independent, certified or licensed, drug testing facility selected by the medical facility or by the medical facility itself. The employee shall be requested to sign a consent form authorizing the testing facility to conduct the tests. The tests shall be conducted at the expense of the Contractor.

c. What test shall be performed

The initial drug screening procedure or test shall be performed using an Enzyme Multiple Immunoassay Test (Emit Test). If the Emit Test indicates the presence of a measurable amount of a prohibited substance, then a second Gas Chromatography/Mass Spectrometry Test (GC/MS Test) shall be utilized.

d. What constitutes a "Positive" test for a prohibited substance

If the GC/MS Test confirms the presence of a measurable amount of a prohibited substance, then the test shall be deemed to be "positive" for the prohibited substance.

e. Alcohol Testing

All breath alcohol testing shall be conducted through use of an Evidential Breath Testing (EBT) device by a trained Breath Alcohol Technician. If the result of the screening test is less than 0.04 percent alcohol concentration the result of the test is negative and no further testing shall be done. If the result of the screening test is an alcohol concentration of 0.04 or greater, a confirmation test shall be performed. The confirmation test shall be performed not less than fifteen (15) nor more than twenty (20) minutes after completion of the screening test.

f. What constitutes a "Positive" test for alcohol

If the result of the screening test and confirmation test are 0.04 percent alcohol concentration or greater, the result is positive.

g. Consequences of a "Positive" drug or alcohol test

If an employee's test is positive for a prohibited substance, then the employee shall be deemed to have violated this Policy prohibiting the employee from reporting to work with a measurable amount of a prohibited substance in the employee's system.

5. EMPLOYEE'S RIGHTS

In connection with the testing procedures, the employee has the following rights:

- a. The Contractor shall direct the testing facility to preserve part of the original samples for testing by the employee at the employee's expense.
- b. The Contractor shall provide the employee with copies of the test results.

- c. The Contractor shall keep the results of the tests confidential to the extent practicable.
- d. The Contractor shall disclose the results of the tests only to persons who have a legitimate need to know the test results.

6. DISCIPLINARY ACTION FOR VIOLATIONS OF RULES

An employee who uses, possesses, dispenses or receives prohibited substances on airport property may be immediately removed and may be permanently barred from working at a CDA facility.

An employee who reports to work with a measurable amount of a prohibited substance in the employee's system shall be immediately removed and may be permanently barred from working on a CDA facility.

If an employee refuses to cooperate with the drug or alcohol testing procedures, then the employee shall be immediately removed and may be permanently barred from working at a CDA facility.

If the employee refuses to permit the CDA or CM's Manager of Safety to conduct a search or inspection permitted under this Policy, the employee shall be immediately removed and may be permanently barred from working at a CDA facility.

If an employee fails to report the employee's use of a prescribed medication which will or may impair the employee's ability to perform the employee's job in a safe and efficient manner, then the employee shall be immediately removed and may be permanently barred from working at the City's Airport.

7. CONCLUSION

The Contractor's compliance and cooperation with this policy, including cooperation with CDA or the CM's Manager of Safety requested drug and alcohol testing and inspection procedures, is a condition of employment. The failure of a Contractor to comply and cooperate with this policy shall be grounds for disciplinary action, including termination of the contract.

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VIII. EMERGENCY PROCEDURES

A. INTRODUCTION

The Contractor shall prepare written procedures governing actions to be taken in the event of serious injury, property damage or catastrophic events. These procedures shall be updated as the work progresses. Emergency procedures will include necessary action to be taken, who will take them, names of persons to be notified, and location of emergency equipment and supplies. These procedures will be provided to all key personnel involved and will be posted in conspicuous locations throughout the project.

B. GENERAL

At the time of the project job start-up, copies of emergency procedures shall be given to all supervisors. The Contractor's Superintendent shall review the program with each supervisor to be certain they understand the requirement and their responsibilities. Upon completion of the review, the project superintendent shall note in his job diary that he reviewed this procedure with the foremen, giving all pertinent information.

C. GENERAL PROCEDURES

All emergencies are to be handled by the highest-ranking person present, with whoever is available to assist.

Ranking person shall delegate responsibility for making emergency phone calls.

Emergency phone numbers are to be placed at conspicuous places throughout the jobsite.

The need for an ambulance or other emergency equipment shall be determined by the site personnel, except where a catastrophic event has occurred. In the event of a catastrophic occurrence, public authorities shall govern.

Where specific procedure has not been established, relative judgment should be used in determining what course to follow.

In all instances the CM's Manager of Safety shall be notified immediately upon completion of emergency first aid treatment.

1. FIRE

- a. Make a safe attempt to extinguish, but in no way endanger yourself or others. At the same time, have the Chicago Fire Department notified. Assign an employee to meet the fire department at the site entrance to provide directions to the location of the fire.
- b. Insure that employees in adjoining work areas are evacuated to a safe area.
- c. Keep all spectators and non-essential employees away from the fire.
- d. If explosive-type materials are involved immediately evacuate all personnel.
- e. Make no comments to media representatives. Refer all inquiries to the Supervising Consultant.

2. ACCIDENTS INVOLVING SERIOUS INJURY OR DEATH

- a. Provide for necessary first aid. Send for medical personnel.
- b. Remove and/or keep back all non-essential personnel.
- c. Provide assistance to rescue personnel as requested.
- d. Make no comments. Refer all inquiries to the Chicago Department of Aviation.
- e. Allow no pictures to be taken except on approval of CDA or designated representative.
- f. Notify CM's Manager of Safety immediately. Make full investigation and file the written report within twenty-four (24) hours.

3. PROPERTY DAMAGE ACCIDENTS

- a. Notify CM's Manager of Safety
- b. Protect against further damage where possible
- c. Where the possibility of fire, explosion or electrical injury exists, take additional measures as necessary to protect personnel.
- d. Keep all spectators and non-essential employees back and/or away from the area.
- e. Make no comments. Refer all inquiries to Chicago Department of Aviation.
- f. Allow no onsite pictures to be taken except on approval by the Construction Manager.
- g. Make full investigation and file report within twenty-four (24) hours.

4. BOMB THREAT

When a bomb threat is received for the first time, the project or office shall be evacuated immediately. Notify the City of Chicago Police Department immediately. A search of the premises will be made by the City of Chicago Police Department. If a suspicious article is found - DO NOT TOUCH IT – leave the area – notify the appropriate authorities immediately.

If no bomb is found and a second threat is made shortly after the first one, the premises should be evacuated again and searched again by the City of Chicago Police Department. If a third threat occurs under similar circumstances, which make the threat appear to be a mere continuation of the same pattern of false claims, careful evaluation of the circumstances by the City of Chicago Police Department may indicate a need for no further action.

If a threat occurs after a substantial period of time has elapsed since the previous threat, or if for any reason the threat seems to be unrelated to the earlier threats, the above procedures of evacuation, etc., shall be followed.

The evacuation will consist of all personnel on the project or in the office. A count will be made to assure all are present.

Do not allow anyone except authorized personnel to re-enter the area.

If necessary to stop or detour traffic away from the affected area, utilize the City of Chicago Police or Contractor's flagperson.

Notify any affected businesses or residents who may be endangered.

Allow no photos. Make no comments. Refer all inquiries to the Chicago Department of Aviation.

IX. INSPECTIONS

A. RESPONSIBILITIES

1. CONTRACTOR

The Contractor has the responsibility to stop work at any time an imminent danger to persons or property exists with their own operation or with the operation of a subcontractor. The Contractor will receive no recompense for additional cost or time extension.

The Contractor shall periodically inspect all areas under their control. The Contractor shall insure that at least a thorough, documented inspection is completed on a weekly basis (FAA funded projects shall have a documented daily inspection). Such documented inspections shall be forwarded to the CM's Manager of Safety. The CM's Manager of Safety shall forward a copy of inspection reports to the designated CDA safety representative.

2. CONTRACTOR'S SUPERVISION

Each Contractor supervisor shall insure that ongoing observations are done in their area(s) of responsibility for the purpose of identifying and correcting hazards and deficiencies. This activity should be an ongoing responsibility of all supervisors.

3. INDIVIDUAL EMPLOYEES

Each employee shall be held responsible for identifying hazards and deficiencies in their immediate work area.

B. HAZARDS/DEFICIENCIES

The following is a partial list of items that need to be checked during each inspection:

1. Proper storage of materials.
2. Scrap material in proper containers.
3. Overflowing trash containers.
4. Unused tools in proper place.
5. Signs appropriate and legible.
6. Walkways unobstructed.
7. Storage areas disorderly.
8. Spills not wiped up.
9. Oily rags left in the open, not in required metal containers.
10. Flammable materials in unauthorized containers.
11. Ladders – Not properly secured, broken or missing rungs, cracked side rails, etc.
12. Catwalks – No guardrails installed, lack of toeboards, obstructed, etc.
13. Scaffolding – Improperly installed or secured, in poor repair, missing components, not authorized, etc.
14. Compressed Gas Cylinders – Unsecured, improper storage, caps missing, hoses and regulators left pressurized, etc.
15. Tripping/Slipping Hazards – Temporary hoses/cord/pipes strung across walking surfaces, holes in floor/decking/grating, oil or water on floor, obstruction at the bottom of stairs/ladders/ramps, etc.
16. Protrusions – Into aisles/walkways without protective devices or warnings.

17. Chemical Containers – Proper labeling and storage, barrels equipped with vent bungs and stored out of direct sunlight, no incompatibilities stored together, precautionary signs legible and strategically located, etc.
18. Equipment does not have guards installed.
19. Safety latches are not installed where required.
20. Safety signs are not posted where required.
21. Failure to wear hard hats, safety glasses, proper footwear and hearing protection when required.
22. Working on energized/pressurized equipment without proper approval and protective equipment and clothing.
23. Handling chemicals without proper protection, i.e., no apron, face shield, gloves, boots, respirator, etc., when required.
24. Improper lifting methods.
25. Lack of fire-watch for welding, flame cutting and grinding operations.
26. Attendant improperly located during confined space entries.
27. Smoking in prohibited areas.
28. Failure to comply with tagging and lockout requirements.
29. Working at heights over six feet without fall protection/harnesses when outside a protected area (properly erected scaffolding, etc.).
30. ABC Dry Chemical type fire extinguishers not in place, inspection not up to date, safety pin not sealed, evidence of damage/discharge, etc.
31. Emergency cabinets improperly stocked or in disarray
32. Access to emergency equipment not clear (i.e., fire extinguisher/hoses, eye wash stations, emergency shower, etc.)
33. Zones not clearly marked or posted
34. Permits not posted
35. Warning signs are not posted
36. Welding machines operating when unattended and not in use
37. Leads and hoses improperly routed through doorways without protection from damage
38. Inadequate illumination for the work being performed
39. Cages not installed around light bulbs on drop cords
40. Ground Fault Circuit Interrupters not in place

In addition to the Contractor's inspections, the CM's Manager of Safety shall on a periodic basis, inspect each ongoing project. The Contractor shall correct serious violations immediately and shall have twenty-four (24) hours to correct all deficiencies and to respond in writing to the CM's Manager of Safety as to what corrective action has been taken. Unsafe areas will be barricaded to prevent exposure to employees and the public.

The Contractor shall document corrective action and forward the documentation to the CM's Manager of Safety. Should the same deficiency be noted on two consecutive inspections, a letter outlining CAS inspection process and detailing the noted deficiencies shall be sent to the Contractor's home office requesting assistance in correcting the deficiency.

Should the same deficiency be noted on a third consecutive inspection, the same type of letter mentioned in the above paragraph shall be sent to the Contractor's insurance carrier.

If corrective action is still not forthcoming, further action will be taken. This action may include withholding payments or stopping all work until a meeting with the Contractor principals and the insurance carrier can be arranged.

C. OSHA INSPECTIONS

1. WARRANTS AND RIGHT OF ENTRY

This policy is not intended to abridge the constitutional rights of the Contractors or subcontractors who have the right to request a warrant prior to the inspection of their work areas.

Each Contractor or subcontractor must advise the CM's Manager of Safety in writing if they require a warrant prior to inspection.

2. HARASSMENT

Federal Compliance Officers (CO), State of Illinois inspectors, or similar personnel are not to be harassed, intimidated, or abused. Problems that may arise during the inspection, which cannot be resolved, are to be referred to the CM's Manager of Safety.

Chicago Department of Aviation Safety will be immediately contacted if the Contractor refuses to allow entry of a Federal Compliance Officer.

Federal and State of Illinois safety agencies may impose severe penalties against person and/or companies who fail to abide with this section.

Penalties may include monetary fines and jail terms.

3. INSPECTION CLASSIFICATIONS

There are two (2) basic classes of inspections:

a. General scheduled inspection.

Companies are randomly selected by computer. Inspectors then schedule an inspection. Once entry to the site is obtained by either permission or warrant, the inspector may move freely about the site.

Should the inspectors desire to enter a restricted area which contains trade secrets or hazardous materials, they should be advised to contact their office for direction.

b. Complaint Inspection

Inspectors wishing to conduct a complaint inspection need not obtain a warrant, but must deliver to the Contractor a properly executed copy of the complaint form.

This type of inspection does not grant the inspector free movement within the site. The named Contractor has the right to determine the route to the complaint area, so long as it is not unreasonable.

The inspectors may not enlarge the inspection into other areas, nor may they concern themselves with non-serious conditions observed en route to the complaint area.

However, should an imminent condition be observed, the inspectors may involve themselves should they desire. (An "imminent danger" is one reasonable expected to result in death or permanent injury).

Disaster accidents involving death or multiple injuries come within the parameters of a compliant inspection. Fatal injuries and complaint inspections are given priority. Persons initiating complaint inspections need not be named on the complaint form and may remain anonymous.

4. RIGHTS AND PRIVILEGES

a. Employer:

The employer has the right of representation during the inspection. The representative may question the acts and comments of the inspector and may also request clarifications where the actions of the inspector appear to be contrary to the rules of inspection.

The employees have the right of representation, through their craft union, during the inspection. They may also answer questions regarding the inspection without fear of punitive actions by the employer.

b. Compliance Officer:

The Compliance Officer has the right to take photographs, samples of material atmosphere and measurements as they relate to the inspection. They may also privately interview employees. They may not, however, unduly disrupt work.

5. CITATIONS

As a result of an inspection, citations and notice of monetary penalty may be received onsite. Should a citation/penalty notice be received, the following must be done:

Immediately forward copies of the material received along with completed copies of inspection records and pictures to the CM's Manager of Safety.

Post copies of citations near the area cited. Postings must remain for three (3) working days or until corrections have been made.

Each citation provides for the removal of assessed penalty figures. This section is to be detached before citations are copied and posted.

Failure to post citation is punishable by fine.

6. WHAT TO DO WHEN OSHA INSPECTS

a. INTRODUCTION

This is to assist you in the event of an inspection of your site by an Occupational Safety and Health Administration Compliance Officer. Its purpose is to provide a guide for chronological recording of information and evidence to support an affirmative defense.

The forms should be copied in an amount to provide for field use during inspection. At the completion of the inspection, final forms should be typed and photographs attached.

It is extremely important that all information be accurate, that pictures are clear, and that measurements be accurate since the information may be introduced as evidence under oath at a formal court hearing.

b. COMPLIANCE OFFICERS

The function of the Compliance Officers (CO) is to identify, measure and photograph conditions and/or acts which they consider unsafe and in violation of the construction safety regulations.

In the pursuit of their duties they may go wherever they wish on the project. They may take any samples or measurements they feel are important. They can request copies of any literature, documents, or contracts, which relate to safety or industrial hygiene.

Compliance Officers may not violate any known safety regulation. They are responsible for providing and wearing personal safety equipment where such is needed. Failure to comply with the safety program is cause for not permitting them onsite or stopping an inspection that is already in progress. Should this occur, institute the following procedure:

- Advise the CO that they are in violation and ask that they comply with the safety program.
- Failing item above, photograph CO in unsafe condition – discontinue participation in inspection, notify OSHA Area Director and the CM's Manager of Safety.
- The CO may consult with employees regarding matters of safety and health to the extent that it is necessary for the conduct of an effective and thorough inspection. The conduct of inspection shall be such as to preclude unreasonable disruption of operations on the project.

c. CONTRACTOR REPRESENTATIVE

The Contractor's assigned project superintendent shall serve as employer's representative. They will keep the notes, take the photographs and shall accompany the inspection party for its duration.

Information given should be only information requested. The superintendent should refrain from entering into debates or discussions about alleged violations, exceptions, or regulations applicability, nor should they volunteer information not requested.

Because the CO says it does not necessarily make it so, an alleged violation does not become an affirmed violation unless the employer accepts the citation, or when contested, the judge affirms the citation.

d. PHOTOGRAPHS

Photographs may be taken of every item or action the CO inspects. Two pictures are to be taken. One from the angle and location of the CO, the second is to be an overall picture of the area surrounding the violation.

An example of this would be an exposed shaft.

Close-up, it's a violation, however, if an overall picture shows that the shaft is not readily accessible, then possibly no violation exists.

Photographs are to be taken with a camera which produces a negative, and if possible, with a date-imprint. This permits additional copies to be ordered at time of processing.

Each picture should have the following information on the back:

- Project name and number
- City and State
- Location by floor and area, i.e., 4th floor, Column J-4 Mechanical Room
- Date and time of picture
- Brief description of the picture
- Name or initials of person taking the picture and picture numbered chronologically

e. CONDUCTING THE INSPECTION

The Compliance Officers will present their identification to the Contractor and state the purpose of the visit. They will request that an opening conference be held with a representative of the Contractor they wish to inspect and the Contractor's union steward.

Absent the need for a warrant, the Compliance Officer will begin the opening conference.

The Compliance Officer will:

1. State the nature of the inspection, general compliant, target industry, other.
2. State the approximate time he will be onsite.
3. Request copies of safety program, accident reports, and inspection surveys. He may not review any contract documents other than general conditions and similar front-end documents.
4. Approve members of the inspection party. Each member has a right to representation and the compliance Officer has the right to choose the representative. Disruptive conduct by the employer/employee representatives is cause for dismissal from the inspection party.
5. Generally discuss the purpose of the OSHA Act, its sanctions, and the authority vested in them by the Act.
6. Advise that at the conclusion of the inspection, a closing conference will be held to advise of any alleged violations noted, to determine corrective dates and answer questions.

f. DURING THE INSPECTION

Allow the Compliance Officer to lead.

Do not permit unneeded employees to linger near the inspection party.

Do not harass, threaten or otherwise intimidate the Compliance Officer.

Keep a chronological record of where the Compliance Officer goes, whom he talks with and how long he talks to employees and whether he returns to a location previously inspected.

When photographs are taken, ask the nature of the suspected violation and record on the "Inspection Notes" form.

g. THE CLOSING CONFERENCE

At the completion of the inspection, the Compliance Officer will either hold a general meeting or meet with each individual Contractor. The CM's Manager of Safety representative should attend all meetings, if held individually, for the purpose of recording each Contractor's alleged violations.

Remainder of page left intentionally blank.

X. EMPLOYEE DISCIPLINARY PROGRAM

A. POLICY

In an effort to make individuals more responsible for their own safety, the following disciplinary program is being implemented:

1. First safety violation – a written warning
2. Second safety violation – the individual's privilege to work at the airports will be revoked for a period of three days.
3. Third safety violation – the individual's privilege to work at the airport will be permanently revoked.

Note: A serious violation may result in a higher degree of discipline being imposed up to and including permanent revocation of work privileges.

Serious violations are acts, which could result in serious bodily injury or death to themselves or to others i.e., failure to follow confined space procedures, working from heights where fall protection is required, unsafe excavations, etc.

B. PROCEDURE

All personal violations will be recorded on Safety Violation notice form and will be recorded.

A Safety Violation Notice may be initiated by any Project Manager, Resident Engineer, Contractor supervisory staff or Safety Department staff.

When a violation notice is written, copies will be given to the project Superintendent, who will have the responsibility of discussing the violation with the employee and having the employee to sign the violation form. If the employee refuses to sign the form the superintendent will write "Refused to Sign" in the space. A copy will then be given to the employee with a copy forwarded to the CM Manager of Safety.

C. APPEAL

An employee who wishes to appeal a Safety Violation notice may do so by appealing in writing to the CM Manager of Safety. The decision of the CM Manager of Safety will be final.

EXHIBITS

| | |
|--------------------|---|
| Exhibit V-1 | Field Cable Locate Request |
| Exhibit V-2 | O'Hare Underground Construction Notification |
| Exhibit V-3 | Request for FAA Assistance |
| Exhibit V-4 | Incident Report Form |
| Exhibit V-5 | Hot Work Permit Sample |
| Exhibit V-6 | Confined Space Permit Sample |
| Exhibit V-7 | ORD Notice to Airport Users |

Field Cable Locate Request

Date: _____

Primary Contractor Information

Sub-Contractor Information

Company Name: _____

Company Name: _____

Address: _____

Address: _____

City: _____

City: _____

State: _____ Zip Code: _____

State: _____ Zip Code: _____

Point of Contact: _____

Point of Contact: _____

Title: _____

Title: _____

Phone Numbers: O _____
C _____

Phone Numbers: O _____
C _____

Related Project: _____

Latitude and Longitude of requested locates. Attach separate sheet if needed.

Latitude: _____

LAT/LONG IS IN NAD83 FORMAT ONLY

Longitude: _____

Was or is there a Pre-Construction Meeting? Yes No

If yes, Date: _____ Time: _____ Location: _____

Is there an Airspace Case Filed? Yes No If Yes, Case Number: _____

Additional Comments:

Completed By FAA Rep. _____ Date: _____

Contractor Rep. Signature _____

**CHICAGO DEPARTMENT OF AVIATION
UNDERGROUND CONSTRUCTION NOTIFICATION**

I. PROJECT INFORMATION

A. Project Name _____ **Date:** _____
1. Project No. _____
2. Resident Engineer _____

B. Work Location _____

C. Description of Work _____

D. General Contractor _____
1. Name of Superintendent/Foreman _____ 24 Hr. Phone _____
2. Name of Superintendent/Foreman _____ 24 Hr. Phone _____

E. Subcontractor _____
1. Name of Foreman _____ 24-Hr. Phone _____
2. Name of Superintendent _____ 24 Hr. Phone _____
3. Name of Foreman _____ 24 Hr. Phone _____

F. Anticipated Dates of Work _____

G. Anticipated Hours of Work _____ _____
Days Nights

Remarks / Clarifications (as necessary): _____

H. Scheduled Pre-Activity Meeting
1. Pre-Activity meeting scheduled: Time: _____
Date: _____
Location: _____
Optional: Utility Locate Meeting Time: _____
Date: _____
Location: _____

2. Has the Pre-Activity meeting notification email been sent? Yes No
* Attach email for documentation

A. Pre-Activity Meeting Minutes

- 1. Meeting Date and Time: _____
- 2. Meeting Location: Field / Office: _____
- 3. Organizations in Attendance:

| | | | Primary Representative at Meeting (SIGNATURE) |
|-------------------------|------------------------------|------------------------------|--|
| a. Construction Manager | <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | _____ |
| b. General Contractor | <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | _____ |
| c. Subcontractor | <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | _____ |
| d. FAA Facilities | <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | _____ |
| e. CDA Operations | <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | _____ |
| f. CDA Facilities | <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | _____ |
| g. Other: _____ | <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | _____ |
| h. Other: _____ | <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | _____ |
- 4. Key Discussion Points: _____

- 5. Meeting Minutes Available: Yes NO

B. FAA Cable Locate Forms

- 1. Have FAA cable locate forms been submitted? Yes No Copies in Binder
Note: FAA cable locate forms must be submitted three (3) days prior to the cable locate being performed in the field (The 3-Day Notice excludes Holidays, Saturdays and Sundays).
- 2. Did you receive an approved copy? Yes No Copies in Binder
* The FAA has been onsite to give the contractor location of FAA utilities.

C. FAA Assistance Forms

- 1. Have FAA assistance forms been submitted? Yes No Copies in Binder
Note: FAA cable locate forms must be submitted five (5) days prior to the desired assistance being performed in the field (The 5-Day Notice excludes Holidays, Saturdays and Sundays).
- 2. Did you receive an approved copy? Yes No Copies in Binder
* Not Required.

D. CDA User Form (if applicable)

- 1. Has the CDA User Form been submitted? Yes No Copies in Binder
- 2. Was the CDA User Form approved? Yes No Copies in Binder

II.

DOCUMENTATION (Continued)

E. Airspace Case Study

- 1. Has the Airspace Case Study been approved? Yes No Copies in Binder
- 2. Approved Airspace Case No. _____
- 3. Was a post Airspace Case Study review conducted with the FAA? Yes No Copies in Binder

F. Applicable Installation Documentation

- 1. Shop Drawings Yes No N/A
- 2. Submittals Yes No N/A
- 3. Field Orders Yes No Copies in Binder
- 4. RFI's Yes No Copies in Binder
- 5. Work Related Drawings and Specifications Yes No Copies in Binder
- 6. Field Sketches Yes No Copies in Binder
- 7. Composite Utility Drawings Yes No Copies in Binder

III.

UTILITY / FACILITY IMPACTS

A. Anticipated / Potential Impacts

- 1. Facilities Affected or Nearby _____

B. Additional Power Sources

- 1. Does the Facility currently have backup power? Yes No N/A
- 2. List items on backup power
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
- 3. Remarks (if necessary) _____

III. UTILITY / FACILITY IMPACTS (Continued)

- 4. Generator Power
 - a. Is a Generator necessary to provide temporary power to Facilities before work starts?
 - Yes Who _____
 - No Date / Time _____
 - Standby Only How _____
 - b. What Facilities require Generator Power?
 - _____
 - _____
 - _____

IV. DELINEATION OF CRITICAL AREA / SAFETY AREA

- A. Safety Areas
 - 1. Have the Safety Areas (RSA/TSA) been identified?
 - Yes No N/A

Runway (RSA) = 200' From Centerline
Runway (RSA) = in front of Existing Localizer
Taxiway (TSA) = 131' From Centerline
 - 2. Have the Object Free Areas been (ROFA/TOFA) been identified?
 - Yes No N/A

Runway (OFA) = 400' From Centerline
Runway (OFA) = 1,000' From RW End
Runway (OFA) = 160' From Centerline
- B. Critical Areas
 - 1. Have the navigational critical areas been identified with snow fence or silt fence to ensure adequate recognition of the area?
 - Yes No N/A

Fence to be installed prior to work
- C. Review of delineation of critical / safety areas.
 - 1. Have the governing agencies reviewed the proposed delineation plan?
 - CDA FAA N/A

All Pre-Activity Meeting

V. UTILITY LOCATES

- A. Layout of Proposed or New Work
 - 1. Has the Contractor clearly identified the line of the proposed excavation?
 - Yes No
- B. Utility Locate Organization
 - 1. Identify organizations that have completed utility locates.
 - FAA Date: _____
 - CDA Date: _____
 - DIGGER No. _____ Active Date: _____
 - JULIE No. _____ Active Date: _____
 - OTHER: (Explain) _____ Date: _____
 - OTHER: (Explain) _____ Date: _____

UTILITY LOCATES (Continued)

2. Identified Utilities

Have all known Utilities around the Facility (FAA, DOA, ComEd, SBC, AGI, Other) been physically located on the ground by the FAA, and others as applicable? (Identify point of origin and point of termination for each line)

- | | | | | | |
|----------------|------------------------------|------------------------------|-----------------------------|---------------------------------|--------------------------------------|
| a. Power | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Origin | <input type="checkbox"/> Termination |
| b. Control | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Origin | <input type="checkbox"/> Termination |
| c. Grounding | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Origin | <input type="checkbox"/> Termination |
| d. Comm / Data | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Origin | <input type="checkbox"/> Termination |
| e. Water | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Origin | <input type="checkbox"/> Termination |
| f. Sewer | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Origin | <input type="checkbox"/> Termination |
| g. Other | <input type="checkbox"/> N/A | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Origin | <input type="checkbox"/> Termination |

* Origin and Terminal have been determined within the job limits.

C. Contractor's Proposed Method of Identifying Known Utilities

1. Vacuum Excavating Yes No
2. Ground Penetrating Radar Yes No
3. Hand Excavation Yes No
4. Other. Explain _____
5. Were all known utilities identified? Yes No
If no, which known utilities were not identified and why? _____

6. Yes No
If yes, the the space below, describe the nature of the situation and the actions taken:

D. Utility Delineation

1. Has the ten foot (10') utility channel "five feet (5') on either side of the know utilities" been marked or delineated with Snow Fence, Orange Silt Fence or PVC indicators where the new work crosses the utility?
Requesting Variance to this Procedure Yes No
2. Runways
Are utility locates required within the Runway Safety Area (RSA)? Yes No
Identify the method the utility locates have been identified. Paint Flags
 Potholed / Hydroexcavated and marked using PVC and Surveyed

No Utility Locates Shall Be Performed Within the Runway Safety Area While the Runway is Open to Air Traffic. All runway safety area locates must be performed between the hours of 2200 and 0600 (10:00 pm – 6:00 am).

V.

UTILITY LOCATES (Continued)

3. Taxiways

Are utility locates required within the Taxiway Safety Area (TSA)? Yes No – N/A

Identify the method the utility locates have been identified. Paint Flags

The scheduling of utility locates within a Taxi Safety Area (TSA) shall be coordinated with CDA Operations.

E. Protection and Delineation of Existing Facilities

Have Snow Fence, Silt Fence, Barricades or other protective devices been installed around nearby

1. existing Facilities, i.e. Buildings, Antenna, Transformers, Markers, RVRs, LLWAS, etc. to ensure adequate recognition?

- Yes _____
(Facility)
- Yes _____
(Facility)
- Yes _____
(Facility)
- Yes _____
(Facility)
- Yes _____
(Facility)

F. Deviation from Approved Procedure – Request for Waiver

1. If approved procedural means of excavating have been determined to be ineffective, have you sought approval for an alternative approach to the work? Yes No

2. If yes, describe the approach that is not effective, and then describe the proposed alternative method of approach.

- a. Ineffective method: _____

- b. Proposed method: _____

3. Was a "Waiver" from the planned approach sought and approved? Yes No

By Whom: _____
Date / Time: _____
How _____

VI.

ACKNOWLEDGMENT OF NOTIFICATION

General Contractor

Signature Required

Date

Construction Manager

Signature Required

Date

Federal Aviation Administration

Signature Required

Date

Chicago Department of Aviation

Signature Required

Date

Other

Signature Required

Date

VII.

AUTHORIZATION TO COMMENCE WORK

Print Name

Signature Required

Date

Request for FAA Assistance

Date: _____

Primary Contractor Information

Sub-Contractor Information

Company Name: _____

Company Name: _____

Address: _____

Address: _____

City: _____

City: _____

State: _____ Zip Code: _____

State: _____ Zip Code: _____

Point of Contact: _____

Point of Contact: _____

Title: _____

Title: _____

Phone Numbers: O _____
C _____

Phone Numbers: O _____
C _____

Related Project: _____

Type of assistance needed. Example, site access, _____

Date and time assistance is needed: _____

Was or is there a Pre-Construction Meeting? Yes No

If yes, Date: _____ Time: _____ Location: _____

Is there an Airspace Case Filed? Yes No If Yes, Case Number: _____

Additional Comments:

Completed By FAA Rep. _____ Date: _____

Contractor Rep. Signature _____

Chicago Department of Aviation Capital Improvement Program Incident Report

Submit a copy of this report within 24 hours of incident to:

CARE PLUS LLC
10510 W. Zemke
Chicago, IL 60666
ATTN: Mark Leipold
Senior Safety Officer

Telephone: 773.447.4952
Email: Mark.Laipold@cityofchicago.org
Fax: 773.894.3780

Date of Incident: _____
Time of Incident: _____ a.m./p.m.
(Circle one)
Today's Date: _____
Time: _____ a.m./p.m.
(Circle one)

Contractor Information

General Contractor: _____ Project Name: _____
Project Number: _____ Subcontractor: _____
(N/A if none)
Chartis Project Code: _____

Type of Incident (Check all that apply)

- Bodily Injury/Illness
- Property Damage
- Motor Vehicle
- Aircraft
- Other _____

Action (Please check all appropriate boxes)

- OCC Notified **(773) 894-9111**
- MCC Notified **(773) 838-9111**
- Non-CDA Emergency Agency Notified

(List Outside Fire, Ambulance, Police or other)

Taken to Clinic: _____

(Provide Name and Address of Clinic)

- Emergency Medical Services **Provided**
- Emergency Medical Services **Not Provided**
- Emergency Medical Services **Refused**
- Other: _____

Incident Involvement (Please check all appropriate boxes)

- Contractor Employee
- Subcontractor Employee
- Passenger/Public
- Utility Damage
- Security Incident
- Wildlife Incident
- Other (Describe) _____
- Aircraft
- Fire
- HazMat Incident
- Runway Incursion
- City Vehicle
- Non-City Vehicle

Site Conditions

Weather: Clear Snow
 Overcast Fog
 Temp. _____ °F Sleet
 Rain Windy

Surface: Wet Ice
 Snow Dry
 Cracked Uneven
 Pothole Mud

Light: Daylight Night
 Dawn Artificial
 Dusk Glare

Injured Person's Work Status

- Light Duty Restrict. (Describe) _____
- Lost Time Incident
- Full Duty - No Restrictions

Bodily Injury/Illness (Individuals/Parties who were injured)

| | |
|---|---|
| Name of Person | Name of Person |
| Address of Person (Number, Street, City, State, Zip Code) | Address of Person (Number, Street, City, State, Zip Code) |
| Telephone | Telephone |
| Description of Injury/Illness | Description of Injury/Illness |

Property Damage Information (Contractor is responsible for obtaining police report)

| | |
|---|---|
| Type of Property <input type="checkbox"/> City Owned <input type="checkbox"/> Non-City Owned | Describe Property Damage (Building, #, Aircraft, Airfield, Utility) |
| Motor Vehicle Incident Information (Contractor is responsible for obtaining police report) | |
| Type of Vehicle <input type="checkbox"/> Automobile <input type="checkbox"/> Bus <input type="checkbox"/> Truck <input type="checkbox"/> Other | Describe Vehicle Incident (Include Vehicle type, year, model, number, license #, location) |
| List police department(s) completing accident reports | Police Report Number <input style="width: 150px;" type="text"/> City State County Airport (Circle) |
| Witness Information (Use additional sheets for more witnesses) | |
| Name of Person | Name of Person |
| Address of Person (Number, Street, City, State, Zip Code) | Address of Person (Number, Street, City, State, Zip Code) |
| Telephone | Telephone |
| Individual Completing Report | |
| Name of Person | Were you an eyewitness to the incident? <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Company/Your Position | Telephone |
| Signature | Date |
| Cause of Incident (Please be as thorough as possible) | |
| Describe Incident: (Use additional paper if needed) Please Check Box if Pictures Were Taken <input type="checkbox"/> | Please use this area to sketch incident area. Use north arrow and dimensions |
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Additional Information (Use this page to provide more detailed information not mentioned above)

Use this space to also describe injury in detail and medical disposition

Describe, in detail, the corrective actions that will be taken to prevent reoccurrence

HOT WORK PERMIT

All temporary operations involving open flames or producing heat and/or sparks require a Hot Work Permit. This includes, but is not limited to, Brazing, Cutting, Grinding, Soldering, Thawing, and Welding. This form must be prepared and signed prior to the start of any Hot Work operation for each shift that Hot Work Occurs.

| INSTRUCTIONS FOR FIRE SAFETY SUPERVISOR | OK | HOT WORK CHECKLIST | N/A |
|--|--------------------------|---|--------------------------|
| Project Name & # _____ | <input type="checkbox"/> | Is there an approved User Form for the Hot Work? | <input type="checkbox"/> |
| Contractor: _____ | <input type="checkbox"/> | Have the participants in this work been appropriately trained for this activity | <input type="checkbox"/> |
| DATE _____ | <input type="checkbox"/> | Is the area ventilated? | <input type="checkbox"/> |
| Time Period _____ | <input type="checkbox"/> | Will the smoke and fumes affect operations? | <input type="checkbox"/> |
| Start: _____ Finish: _____ | <input type="checkbox"/> | Will an effort be made to capture and filter the fumes? | <input type="checkbox"/> |
| LOCATION/BUILDING & FLOOR (Be Specific) _____ | <input type="checkbox"/> | Will the fumes set - off a local smoke alarm? | <input type="checkbox"/> |
| DESCRIPTION OF WORK BEING PERFORMED _____ | <input type="checkbox"/> | Will the fumes travel to other areas? If so list precautions to be taken. | <input type="checkbox"/> |
| NAME OF SUPERVISOR AUTHORIZING HOT WORK _____ | <input type="checkbox"/> | Hot Work Equipment in good condition (e.g., power source, welding leads, torches, ect.) | <input type="checkbox"/> |
| NAME OF PERSON DOING HOT WORK _____ | | Multi-purpose ABC fire extinguisher charged & ready for use? | |
| NAME OF FIRE WATCH _____ | | REQUIREMENTS WITHIN 35 FEET OF WORK | |
| The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work. | <input type="checkbox"/> | Dust, Lint, Debris, Flammable Liquids and oily deposits removed; floors swept clean | <input type="checkbox"/> |
| SIGNED: _____ (Permit Authorizing Individual) | <input type="checkbox"/> | Explosive atmosphere in area eliminated. | <input type="checkbox"/> |
| SIGNED: _____ (Person doing Hot Work) | <input type="checkbox"/> | Combustible floors (e.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets. | <input type="checkbox"/> |
| I will execute my responsibilities as a Fire Watch in accordance with the CAS requirements to the best of my abilities. | <input type="checkbox"/> | Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields. | <input type="checkbox"/> |
| SIGNED: _____ (Fire Watch) | <input type="checkbox"/> | All wall and floor openings covered. | <input type="checkbox"/> |
| FIRE WATCH SIGNOFF | <input type="checkbox"/> | Walkways protected beneath hot work. | <input type="checkbox"/> |
| Work area and all adjacent areas to which sparks and heat might have spread were inspected during the fire watch period and were found fire safe. | | WORK ON WALLS OR CEILINGS | |
| Signed: _____ | <input type="checkbox"/> | Combustibles moved away from other side of wall. | <input type="checkbox"/> |
| FINAL CHECKUP (minimum 30 minutes after Hot Work) | | WORK IN CONFINED SPACES | |
| Work area was monitored for _____ hours(s) following Hot Work and found fire safe. | <input type="checkbox"/> | Confined space cleaned of all combustibles (example: grease, oil, flammable vapors). | <input type="checkbox"/> |
| Signed: _____ | <input type="checkbox"/> | Containers purged of flammable liquids/vapors. | <input type="checkbox"/> |
| FILL OUT EMERGENCY INFORMATION ON BACK OF Page 2. | <input type="checkbox"/> | Follow confined space guidelines. | <input type="checkbox"/> |
| | | FIRE WATCH/HOT WORK AREA MONITORING | |
| | <input type="checkbox"/> | Fire watch will be provided during and for 30 minutes after work, including any coffee or lunch breaks | <input type="checkbox"/> |
| | <input type="checkbox"/> | Fire watch may be required for opposite side of walls, above, and below floors and ceilings. | <input type="checkbox"/> |
| | <input type="checkbox"/> | Fire watch is supplied with an appropriate charged extinguisher, also making use of other extinguishers located throughout work area. | <input type="checkbox"/> |
| | <input type="checkbox"/> | Fire watch is trained in use of this equipment and is equipped to notify the OCC/MCC in the event of an emergency. | <input type="checkbox"/> |
| | <input type="checkbox"/> | OTHER PRECAUTIONS TAKEN | |

WARNING!

HOT WORK IN PROGRESS WATCH FOR FIRE!

IN CASE OF AN EMERGENCY:

CALL: O'Hare Command Center

AT: 773 - 894 - 9111

WARNING!

WARNING!

HOT WORK IN PROGRESS WATCH FOR FIRE!

IN CASE OF AN EMERGENCY:

CALL: MIDWAY COMMAND CENTER

AT: 773 - 838 - 9111

WARNING!

Confined Space Entry Permit

Entry Date: _____ Start Time: _____ Completion Time: _____

Description of Work To Be Performed: _____

Description of Space

Confined Space ID Number: _____ Type: _____

Classification: _____

Building Name: _____

Location of Confined Space: _____

Entry Checklist

| | Yes | No |
|---|-------------------------------------|--------------------------|
| Potential Hazards Identified? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Communication Established with Operations Ctr.? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Emergency Procedures Reviewed ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Entrants and Attendants Trained? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Isolation of Energy Completed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Area Secured? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Emergency Escape Retrieval Equipment Available? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Personal Protective Equipment Used? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Confined Space Equipment and PPE Used During Entry:

| | |
|---|--|
| <input checked="" type="checkbox"/> Tripod with Mechanical Winch | <input checked="" type="checkbox"/> Air Purifying |
| <input checked="" type="checkbox"/> Rescue Tripod with Lifeline | <input checked="" type="checkbox"/> Self Contained Breathing Apparatus |
| <input checked="" type="checkbox"/> Harness | <input checked="" type="checkbox"/> Steel Toe Boots |
| <input checked="" type="checkbox"/> Two-way Communications | <input checked="" type="checkbox"/> Hard Hats |
| <input checked="" type="checkbox"/> General / Local Exhaust Ventilation | <input checked="" type="checkbox"/> Safety Glasses / Goggles / Face Shield |
| <input checked="" type="checkbox"/> Gloves | <input checked="" type="checkbox"/> Other PPE or Equipment Used: |
| <input checked="" type="checkbox"/> Chemical Resistant Clothing | |
| <input checked="" type="checkbox"/> Hearing Protection | |

Air Monitoring Results Prior to Entry

Monitor Type: _____

Oxygen _____% LEL _____% CO _____% H2S _____%

Calibration Performed?

Alarm Conditions?

Monitoring Performed by (sign): _____ Date: _____ Time: _____

Continuous Air Monitoring Results

| Time | Oxygen | % | LEL | % | CO | % | H2S | % |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |

Authorization

We have reviewed the work authorized by this permit and the information contained here-in. Written instructions and safety procedures have been received and are understood. Entry cannot be approved if any squares are marked in the "NO" column. This permit is not valid unless all appropriate items are completed. This permit is to be kept at the job site. Return site copy to supervisor.

Entrants Name: _____ Signature: _____ Date: _____

Attendants Name: _____ Signature: _____ Date: _____

Supervisors Name: _____ Signature: _____ Date: _____

CONFINED SPACE PERMIT

This permit is to be completed prior to entry into confined space.
 A separate permit needs to be completed each day and shift that work is done.

Date: _____

Specific location and space: _____

Confined Space Supervisor: _____

Confined Space Attendant: _____

ATMOSPHERIC READINGS

| | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|
| Time of Readings → | | | | | | | | | |
| (O ₂) Oxygen Between 19.5% & 23.5% | | | | | | | | | |
| (COMB) Combustible Gases Less than 10% | | | | | | | | | |
| (CO) Carbon Monoxide Less than 35 ppm | | | | | | | | | |
| (H ₂ S) Hydrogen Sulfide Less than 10 ppm | | | | | | | | | |
| Attendant Initials | | | | | | | | | |

* Readings recorded above must be within the prescribed safe limits.

ENTRANT LOG

| Entrant (Print Name) | Time In | Time Out | Time In | Time Out | Time In | Time Out | Time In | Time Out |
|-------------------------|---------|----------|---------|----------|---------|----------|---------|----------|
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O'HARE COMMAND CENTER (OCC) EMERGENCY: 773.894.9111
O'HARE COMMAND CENTER (OCC) NON-EMERGENCY: 773.894.5000
ORD Airside Operations: 773.686.2255
ORD H & R Monitor Room 773.686.2248

CONFINED SPACE PERMIT

This permit is to be completed prior to entry into confined space.
 A separate permit needs to be completed each day and shift that work is done.

Date: _____

Specific location and space: _____

Confined Space Supervisor: _____

Confined Space Attendant: _____

ATMOSPHERIC READINGS

| | | | | | | | | |
|---|--|--|--|--|--|--|--|--|
| Time of Readings → | | | | | | | | |
| (O ₂) Oxygen Between 19.5% & 23.5% | | | | | | | | |
| (COMB) Combustible Gases Less than 10% | | | | | | | | |
| (CO) Carbon Monoxide Less than 35 ppm | | | | | | | | |
| (H ₂ S) Hydrogen Sulfide Less than 10 ppm | | | | | | | | |
| Attendant Initials | | | | | | | | |

* Readings recorded above must be within the prescribed safe limits.

ENTRANT LOG

| Entrant (Print Name) | Time In | Time Out | Time In | Time Out | Time In | Time Out | Time In | Time Out |
|-------------------------|---------|----------|---------|----------|---------|----------|---------|----------|
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MIDWAY COMMAND CENTER (MCC) EMERGENCY: 773.838.9111
Midway Airside Operations: 773.838.0677

CONFINED SPACE CHECKLIST

EXHIBIT V-6

Attached this form to the Confined Space Permit. A new form must be completed at the beginning of each shift.

Date: _____

Form completed by: _____

Phone #: _____

Signed: _____

NOTIFICATION

| | | | | | | | |
|--|-----------|----------|-----------|--|-----------|----------|-----------|
| OCC duty supervisor notified? - Name: | Yes: ____ | No: ____ | N/A: ____ | On site radio / telephone check with OCC? | Yes: ____ | No: ____ | N/A: ____ |
| Monitoring office notified of work to be completed at H & R? | Yes: ____ | No: ____ | N/A: ____ | On site radio telephone check monitoring office? | Yes: ____ | No: ____ | N/A: ____ |
| Predetermined emergency response location arranged with OCC if in remote area? | Yes: ____ | No: ____ | N/A: ____ | Has each entrant received confined space training? | Yes: ____ | No: ____ | N/A: ____ |
| Confined space supervisor determined? | Yes: ____ | No: ____ | N/A: ____ | Confined space supervisor determined? | Yes: ____ | No: ____ | N/A: ____ |
| Confined space attendant determined? | Yes: ____ | No: ____ | N/A: ____ | Emergency location form completed? | Yes: ____ | No: ____ | N/A: ____ |
| Confined space entrant(s) determined? | Yes: ____ | No: ____ | N/A: ____ | Personnel who will meet rescue team determined? | Yes: ____ | No: ____ | N/A: ____ |

PREPARATION

| | | | | | | | |
|---|-----------|----------|-----------|---|-----------|----------|-----------|
| Personnel informed of potential hazards and safety talk conducted prior to beginning of work? | Yes: ____ | No: ____ | N/A: ____ | Attendant understands potential exposures signs & symptoms? | Yes: ____ | No: ____ | N/A: ____ |
| Entry and emergency procedures reviewed? | Yes: ____ | No: ____ | N/A: ____ | First aid equipment available? | Yes: ____ | No: ____ | N/A: ____ |
| MSDS / NIOSH chemical hazard sheet(s) reviewed? | Yes: ____ | No: ____ | N/A: ____ | Lockout / Tag out needed prior to work? | Yes: ____ | No: ____ | N/A: ____ |
| Lane closures and buffer zones are needed. | Yes: ____ | No: ____ | N/A: ____ | Permit is on site and being completed by attendant? | Yes: ____ | No: ____ | N/A: ____ |
| Confined space meter daily calibration checked? | Yes: ____ | No: ____ | N/A: ____ | Atmospheric monitoring conducted? | Yes: ____ | No: ____ | N/A: ____ |

EQUIPMENT REQUIRED

| | | | | | | | |
|---|-----------|----------|-----------|--|-----------|----------|-----------|
| Forced air or exhaust ventilation? | Yes: ____ | No: ____ | N/A: ____ | Specialized tools used? | Yes: ____ | No: ____ | N/A: ____ |
| Ground fault circuit interrupters (GFCI)? | Yes: ____ | No: ____ | N/A: ____ | Supplemental lighting used? | Yes: ____ | No: ____ | N/A: ____ |
| Retrieval equipment? | Yes: ____ | No: ____ | N/A: ____ | Equipment rated for explosive atmospheres? | Yes: ____ | No: ____ | N/A: ____ |
| Fire extinguishers? | Yes: ____ | No: ____ | N/A: ____ | Communication equipment? | Yes: ____ | No: ____ | N/A: ____ |

PERSONAL PROTECTIVE EQUIPMENT REQUIRED EQUIPMENT REQUIRED

| | | | | | | | |
|-----------------------|-----------|----------|-----------|-----------------------------|-----------|----------|-----------|
| Hard hat? | Yes: ____ | No: ____ | N/A: ____ | Protective clothing? | Yes: ____ | No: ____ | N/A: ____ |
| Eye / Face protection | Yes: ____ | No: ____ | N/A: ____ | Hearing protection? | Yes: ____ | No: ____ | N/A: ____ |
| Gloves - Type: | Yes: ____ | No: ____ | N/A: ____ | Retrieval harness / tripod? | Yes: ____ | No: ____ | N/A: ____ |
| Safety boots? | Yes: ____ | No: ____ | N/A: ____ | Respirator type: | Yes: ____ | No: ____ | N/A: ____ |

IN CASE OF AN EMERGENCY

DIAL

O'Hare Command Center

At:

773.894.9111

This operation is located at:

Sample

Sample

Make sure to describe incident:

What is involved, fire, injury, utilities.

Describe injuries and identify if injured party is in a confined space or trench.

Do Not Hang Up Until Informed by Emergency Dispatcher

IN CASE OF AN EMERGENCY

DIAL

Midway Command Center

At:

773.838.9111

This operation is located at:

Sample

Sample

Make sure to describe incident:

What is involved, fire, injury, utilities.

Describe injuries and identify if injured party is in a confined space or trench.

Do Not Hang Up Until Informed by Emergency Dispatcher

Emergency “You Are Here”

Sample

773.894.9111

Sample

Staging Area/Terminal Location: _____

Be sure to send someone to the Staging Area/Terminal Location to meet the emergency response team.

Grid Location: _____

- Make sure to describe incident.
- What is involved e.g. fire, injury, utilities.
- Describe injuries and identify if injured party is in a confined space or trench.



Ginger S. Evans
Commissioner

DEPARTMENT OF AVIATION

ORD ___/MDW ___ (check one)

Notice to Airport Users

Log No.

CDA Project No. (or, Requestor)

Date

Project Title & Location

Contractor

Phone

Originator of User Form

24 Hr. Phone

Print Name / Signature

Has a Pre-Construction Meeting been held?

Yes No

Have all permits been procured?

Yes No

Must submit copies to CDA.

Is work being done by ORD badged personnel?

Yes No

If not, who is escorting?

Effective Dates

Start: _____ Completion: _____

Hours Affected

From: _____ Hrs. To: _____ Hrs. or _____ Hrs/Day

Description of Change / Disruption / Termination (Include sketch for clarification)

Affected Users (Signatures required)

Signatures:

Building Engineer _____

Airlines / Tenant Rep. _____

Electrical Work: Electrical permits are required and as-builts must be submitted to CDA for Single Line Diagrams.

System Shutdown: E-Mail all affected parties with schedule of power or water shutdowns, i.e. CDA, tenants...

Hot Work Permit: Inform Crash & Fire Rescue, attach copy, and post original at jobsite.

Underground Work: Have the following parties been contacted?

DIGGER (Utilities)

Yes No

Provide DIGGER Case No. _____

FAA

Yes No

FAA Case No. (7460 Form) _____

ASIG (Fuel Commissioner)

Yes No

| | | Reviewed | Rejected | Signature | Comments |
|----------------------------------|----------|----------|----------|-----------|----------|
| Landside Operations | 894-2085 | | | | |
| Airside Operations | 626-2255 | | | | |
| General Supt. Of Utility Systems | 686-2320 | | | | |
| Facilities Maint. & Construction | 686-7271 | | | | |
| O'Hare Communication Center | 686-5000 | | | | |
| CDA Construction Safety | 686-2397 | | | | |
| CDA Security Office | 686-2397 | | | | |
| C.O.E. – H&R | 686-7310 | | | | |
| CDA Foreman of Related Work | 686-2248 | | | | |
| CDA Telecommunications | 686-2310 | | | | |
| CDA Design & Constr. Engineer | 894-5497 | | | | |

Project of Construction Managers must review and verify all affected parties are notified and sign below.

Resident Engineer of Construction Manager

24 Hr. Phone: _____

Project Manager (CDA or Consultant)

24 Hr. Phone: _____

*****POST SIGNED ORIGINAL FORM AT JOBSITE*****