

106

Letting November 17, 2023

Notice to Bidders, Specifications and Proposal



**Contract No. 61H25
WILL County
Section 17-00064-00-BR (Plainfield)
Route TR 52 (South Indian Boundary Road)
Project Y36A-120 ()
District 1 Construction Funds**

Prepared by

Checked by

F

(Printed by authority of the State of Illinois)



- 1. TIME AND PLACE OF OPENING BIDS.** Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). All bids must be submitted to the iCX system prior to 12:00 p.m. November 17, 2023 at which time the bids will be publicly opened from the iCX SecureVault.
- 2. DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. 61H25
WILL County
Section 17-00064-00-BR (Plainfield)
Project Y36A-120 ()
Route TR 52 (South Indian Boundary Road)
District 1 Construction Funds**

Remove existing dual metal pipe culverts and replace with double-barrel box culvert to carry Indian Boundary Road over Spring Hole Creek in Plainfield.

- 3. INSTRUCTIONS TO BIDDERS.** (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.

(b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.
- 4. AWARD CRITERIA AND REJECTION OF BIDS.** This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to re-advertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Omer Osman,
Secretary

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2023

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS, frequently used RECURRING SPECIAL PROVISIONS, and LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-22) (Revised 1-1-23)

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BDE SPECIAL PROVISIONS

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|------------------|------------|--|------------------|----------------|
| 80099 | | <input type="checkbox"/> Accessible Pedestrian Signals (APS) | April 1, 2003 | Jan. 1, 2022 |
| 80274 | 119 | <input checked="" type="checkbox"/> Aggregate Subgrade Improvement | April 1, 2012 | April 1, 2022 |
| 80192 | 122 | <input checked="" type="checkbox"/> Automated Flagger Assistance Device | Jan. 1, 2008 | April 1, 2023 |
| 80173 | 123 | <input checked="" type="checkbox"/> Bituminous Materials Cost Adjustments | Nov. 2, 2006 | Aug. 1, 2017 |
| 80426 | | <input type="checkbox"/> Bituminous Surface Treatment with Fog Seal | Jan. 1, 2020 | Jan. 1, 2022 |
| 80436 | 125 | <input checked="" type="checkbox"/> Blended Finely Divided Minerals | April 1, 2021 | |
| 80241 | | <input type="checkbox"/> Bridge Demolition Debris | July 1, 2009 | |
| 50531 | | <input type="checkbox"/> Building Removal | Sept. 1, 1990 | Aug. 1, 2022 |
| 50261 | | <input type="checkbox"/> Building Removal with Asbestos Abatement | Sept. 1, 1990 | Aug. 1, 2022 |
| 80449 | 126 | <input checked="" type="checkbox"/> Cement, Type II | Aug. 1, 2023 | |
| 80384 | 127 | <input checked="" type="checkbox"/> Compensable Delay Costs | June 2, 2017 | April 1, 2019 |
| 80198 | | <input type="checkbox"/> Completion Date (via calendar days) | April 1, 2008 | |
| 80199 | | <input type="checkbox"/> Completion Date (via calendar days) Plus Working Days | April 1, 2008 | |
| * 80453 | | <input type="checkbox"/> Concrete Sealer | Nov. 1, 2023 | |
| 80261 | 131 | <input checked="" type="checkbox"/> Construction Air Quality – Diesel Retrofit | June 1, 2010 | Nov. 1, 2014 |
| 80434 | 134 | <input checked="" type="checkbox"/> Corrugated Plastic Pipe (Culvert and Storm Sewer) | Jan. 1, 2021 | |
| 80029 | 146 | <input checked="" type="checkbox"/> Disadvantaged Business Enterprise Participation | Sept. 1, 2000 | Mar. 2, 2019 |
| 80229 | 156 | <input checked="" type="checkbox"/> Fuel Cost Adjustment | April 1, 2009 | Aug. 1, 2017 |
| * 80452 | | <input type="checkbox"/> Full Lane Sealant Waterproofing System | Nov. 1, 2023 | |
| 80447 | | <input type="checkbox"/> Grading and Shaping Ditches | Jan 1, 2023 | |
| 80433 | | <input type="checkbox"/> Green Preformed Thermoplastic Pavement Markings | Jan. 1, 2021 | Jan. 1, 2022 |
| 80443 | | <input type="checkbox"/> High Tension Cable Median Barrier Removal | April 1, 2022 | |
| 80446 | | <input type="checkbox"/> Hot-Mix Asphalt – Longitudinal Joint Sealant | Nov. 1, 2022 | Aug. 1, 2023 |
| 80438 | | <input type="checkbox"/> Illinois Works Apprenticeship Initiative – State Funded Contracts | June 2, 2021 | Sept. 2, 2021 |
| 80045 | | <input type="checkbox"/> Material Transfer Device | June 15, 1999 | Jan. 1, 2022 |
| 80450 | | <input type="checkbox"/> Mechanically Stabilized Earth Retaining Walls | Aug. 1, 2023 | |
| 80441 | 159 | <input checked="" type="checkbox"/> Performance Graded Asphalt Binder | Jan 1, 2023 | |
| 80451 | 164 | <input checked="" type="checkbox"/> Portland Cement Concrete | Aug. 1, 2023 | |
| 34261 | | <input type="checkbox"/> Railroad Protective Liability Insurance | Dec. 1, 1986 | Jan. 1, 2022 |
| 80445 | 165 | <input checked="" type="checkbox"/> Seeding | Nov. 1, 2022 | |
| 80448 | 171 | <input checked="" type="checkbox"/> Source of Supply and Quality Requirements | Jan. 2, 2023 | |
| 80340 | | <input type="checkbox"/> Speed Display Trailer | April 2, 2014 | Jan. 1, 2022 |
| 80127 | 172 | <input checked="" type="checkbox"/> Steel Cost Adjustment | April 2, 2014 | Jan. 1, 2022 |
| 80397 | 175 | <input checked="" type="checkbox"/> Subcontractor and DBE Payment Reporting | April 2, 2018 | |
| 80391 | 176 | <input checked="" type="checkbox"/> Subcontractor Mobilization Payments | Nov. 2, 2017 | April 1, 2019 |
| 80437 | 177 | <input checked="" type="checkbox"/> Submission of Payroll Records | April 1, 2021 | Nov. 1, 2022 |
| 80435 | | <input type="checkbox"/> Surface Testing of Pavements – IRI | Jan. 1, 2021 | Jan. 1, 2023 |
| 80410 | | <input type="checkbox"/> Traffic Spotters | Jan. 1, 2019 | |
| 20338 | 179 | <input checked="" type="checkbox"/> Training Special Provisions | Oct. 15, 1975 | Sept. 2, 2021 |
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| 80440 | | <input type="checkbox"/> Waterproofing Membrane System | Nov. 1, 2021 | |
| 80302 | 183 | <input checked="" type="checkbox"/> Weekly DBE Trucking Reports | June 2, 2012 | Nov. 1, 2021 |
| * 80454 | | <input type="checkbox"/> Wood Sign Support | Nov. 1, 2023 | |
| 80427 | 184 | <input checked="" type="checkbox"/> Work Zone Traffic Control Devices | Mar. 2, 2020 | |
| 80071 | 186 | <input checked="" type="checkbox"/> Working Days | Jan. 1, 2002 | |

GUIDE BRIDGE SPECIAL PROVISION INDEX/CHECK SHEET

Effective as of the: August 4, 2023 Letting

| Pg # | √ | File Name | Title | Effective | Revised |
|------|-------------------------------------|-----------|--|----------------|----------------|
| | <input type="checkbox"/> | GBSP 4 | Polymer Modified Portland Cement Mortar | June 7, 1994 | April 1, 2016 |
| | <input type="checkbox"/> | GBSP 13 | High-Load Multi-Rotational Bearings | Oct 13, 1988 | Sept 2, 2022 |
| | <input type="checkbox"/> | GBSP 14 | Jack and Remove Existing Bearings | April 20, 1994 | April 13, 2018 |
| | <input type="checkbox"/> | GBSP 16 | Jacking Existing Superstructure | Jan 11, 1993 | April 13, 2018 |
| | <input type="checkbox"/> | GBSP 18 | Modular Expansion Joint | May 19, 1994 | Dec 9, 2022 |
| | <input type="checkbox"/> | GBSP 21 | Cleaning and Painting Contact Surface Areas of Existing Steel Structures | June 30, 2003 | Oct 23, 2020 |
| | <input type="checkbox"/> | GBSP 25 | Cleaning and Painting Existing Steel Structures | Oct 2, 2001 | April 15, 2022 |
| | <input type="checkbox"/> | GBSP 26 | Containment and Disposal of Lead Paint Cleaning Residues | Oct 2, 2001 | Apr 22, 2016 |
| | <input type="checkbox"/> | GBSP 28 | Deck Slab Repair | May 15, 1995 | April 13, 2018 |
| | <input type="checkbox"/> | GBSP 29 | Bridge Deck Microsilica Concrete Overlay | May 15, 1995 | April 30, 2021 |
| | <input type="checkbox"/> | GBSP 30 | Bridge Deck Latex Concrete Overlay | May 15, 1995 | April 30, 2021 |
| | <input type="checkbox"/> | GBSP 31 | Bridge Deck High-Reactivity Metakaolin (HRM) Conc Overlay | Jan 21, 2000 | April 30, 2021 |
| | <input type="checkbox"/> | GBSP 33 | Pedestrian Truss Superstructure | Jan 13, 1998 | Dec 9, 2022 |
| | <input type="checkbox"/> | GBSP 34 | Concrete Wearing Surface | June 23, 1994 | Oct 4, 2016 |
| | <input type="checkbox"/> | GBSP 45 | Bridge Deck Thin Polymer Overlay | May 7, 1997 | Feb 6, 2013 |
| | <input type="checkbox"/> | GBSP 53 | Structural Repair of Concrete | Mar 15, 2006 | Aug 9, 2019 |
| | <input type="checkbox"/> | GBSP 55 | Erection of Curved Steel Structures | June 1, 2007 | |
| | <input type="checkbox"/> | GBSP 59 | Diamond Grinding and Surface Testing Bridge Sections | Dec 6, 2004 | April 15, 2022 |
| | <input type="checkbox"/> | GBSP 60 | Containment and Disposal of Non-Lead Paint Cleaning Residues | Nov 25, 2004 | Apr 22, 2016 |
| | <input type="checkbox"/> | GBSP 61 | Slipform Parapet | June 1, 2007 | April 15, 2022 |
| | <input type="checkbox"/> | GBSP 67 | Structural Assessment Reports for Contractor's Means and Methods | Mar 6, 2009 | Oct 5, 2015 |
| | <input type="checkbox"/> | GBSP 71 | Aggregate Column Ground Improvement | Jan 15, 2009 | Oct 15, 2011 |
| | <input type="checkbox"/> | GBSP 72 | Bridge Deck Fly Ash or GGBF Slag Concrete Overlay | Jan 18, 2011 | April 30, 2021 |
| | <input type="checkbox"/> | GBSP 78 | Bridge Deck Construction | Oct 22, 2013 | Dec 21, 2016 |
| | <input type="checkbox"/> | GBSP 79 | Bridge Deck Grooving (Longitudinal) | Dec 29, 2014 | Mar 29, 2017 |
| 187 | <input checked="" type="checkbox"/> | GBSP 81 | Membrane Waterproofing for Buried Structures | Oct 4, 2016 | March 1, 2019 |
| | <input type="checkbox"/> | GBSP 82 | Metallizing of Structural Steel | Oct 4, 2016 | Oct 20, 2017 |
| | <input type="checkbox"/> | *GBSP 83 | Hot Dip Galvanizing for Structural Steel | Oct 4, 2016 | March 24, 2023 |
| | <input type="checkbox"/> | GBSP 85 | Micropiles | Apr 19, 1996 | Oct 23, 2020 |
| | <input type="checkbox"/> | GBSP 86 | Drilled Shafts | Oct 5, 2015 | Oct 4, 2016 |
| | <input type="checkbox"/> | GBSP 87 | Lightweight Cellular Concrete Fill | Nov 11, 2011 | Apr 1, 2016 |
| | <input type="checkbox"/> | GBSP 88 | Corrugated Structural Plate Structures | Apr 22, 2016 | April 13, 2018 |
| | <input type="checkbox"/> | *GBSP 89 | Preformed Pavement Joint Seal | Oct 4, 2016 | March 24, 2023 |
| | <input type="checkbox"/> | *GBSP 90 | Three Sided Precast Concrete Structure (Special) | Dec 21, 2016 | March 24, 2023 |
| | <input type="checkbox"/> | *GBSP 91 | Crosshole Sonic Logging Testing of Drilled Shafts | Apr 20, 2016 | March 24, 2023 |
| | <input type="checkbox"/> | *GBSP 92 | Thermal Integrity Profile Testing of Drilled Shafts | Apr 20, 2016 | March 24, 2023 |
| | <input type="checkbox"/> | *GBSP 93 | Preformed Bridge Joint Seal | Dec 21, 2016 | March 24, 2023 |
| | <input type="checkbox"/> | GBSP 94 | Warranty for Cleaning and Painting Steel Structures | Mar 3, 2000 | Nov 24, 2004 |
| | <input type="checkbox"/> | GBSP 96 | Erection of Bridge Girders Over or Adjacent to Railroads | Aug 9, 2019 | |
| | <input type="checkbox"/> | GBSP 97 | Folded/formed PVC Pipeliner | April 15, 2022 | |
| | <input type="checkbox"/> | GBSP 98 | Cured-in-Place Pipe Liner | April 15, 2022 | |
| | <input type="checkbox"/> | GBSP 99 | Spray-Applied Pipe Liner | April 15, 2022 | |
| | <input type="checkbox"/> | GBSP 100 | Bar Splicers | Sept 2, 2022 | Dec 9, 2022 |
| | <input type="checkbox"/> | GBSP 101 | Noise Abatement Wall, Ground Wall | Dec 9, 2022 | |
| | <input type="checkbox"/> | GBSP 102 | Noise Abatement Wall, Structure Mounted | Dec 9, 2022 | |
| | <input type="checkbox"/> | GBSP 103 | Noise Abatement Wall Anchor Rod Assembly | Dec 9, 2022 | |

An * indicates a new or revised special provision.

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2022, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways" the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the "Supplemental Specifications and Recurring Special Provisions" indicated on the Check Sheet included herein which apply to and govern the construction of Route: TR-52 (Indian Boundary Road): Section 17-00064-00-BR, in Will County, Illinois, and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

Route: TR-52 (Indian Boundary Road)
Section 17-00064-00-BR
Project No. Y36A(120)
Job No. C-91-197-17
Will County
Contract 61H25

LOCATION OF PROJECT

The project is located on Indian Boundary Road, beginning at the intersection with Rowley Road at Sta. 12+65.56 and ending at the intersection with Creekside Drive at Sta. 20+88.51. The total net and gross length of the project is 822.95 feet (0.156 mile) for the reconstruction and realignment of Indian Boundary Road in the Village of Plainfield, Will County, Illinois.

DESCRIPTION OF PROJECT

The work consists of removing the existing pavement and replacing it with full-depth hot-mix asphalt pavement, combination curb and gutter, sidewalk, pavement markings, landscaping, storm sewer and structures, removal of existing Structure Number 099-6857 and replacement with proposed Structure Number 099-6757, and other miscellaneous items to be constructed along the length of the project in accordance with the Drawings, Standard Specifications, and these Special Provisions for furnishing all labor, materials, equipment, and other incidentals necessary for completion of the project.

WORKING HOURS

In accordance with Village of Plainfield Ordinance No. 3535, the Contractor shall perform all work in the Municipality as follows:

7 A.M. to 7:30 P.M., Monday through Friday
7 A.M. to 5:30 P.M., Saturday

No work will be permitted on Sundays or holidays or at other times outside the above working hours without permission of the Village of Plainfield.

DEFINITION OF TERMS

Add the following to Article 101.01

SSWSC Standard Specifications for Water and Sewer Construction in Illinois, 8th Edition, 2020, and as amended from time to time.

Add the following articles:

101.56 OWNER. The Village of Plainfield, acting through its legally constituted officials, officers, or employees.

PROSECUTION OF WORK

Add the following to Article 108.03 of the Standard Specifications as follows:

“The Contractor must complete tree removal by March 30, 2024. The Contractor has three working days to complete tree removal. All other construction operations other than operations related to tree removal will not be allowed to proceed until June 1, 2024.”

DUST CONTROL WATERING

Description: This work shall consist of furnishing and applying water to control dust and airborne dirt generated by construction activities.

General: This work shall be performed according to Article 107.36 of the “Standard Specifications” and the following:

Revise Article 107.36 of the “Standard Specifications” as follows:

If the Contractor is not controlling the dust sufficiently, additional applications must be performed.

Replace subparagraph (d) of under the third paragraph with the following:

(d) Dust shall be controlled by the uniform application of sprinkled water and shall be applied only when requested and in a manner acceptable to the Engineer. All equipment used for this work shall be equipped with adequate measuring devices for determining the exact amount of water discharged. All water used shall be properly documented by ticket or other acceptable means.

Method of Measurement: This work will be paid for per unit. One unit shall equal 1,000 gallons of water.

Basis of Payment: This work will be paid for at the contract unit price per unit for DUST CONTROL WATERING.

MAINTENANCE OF ROADWAYS

Effective: September 30, 1985

Revised: November 1, 1996

Beginning on the date that work begins on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

If items of work have not been provided in the Contract or otherwise specified for payment, such items, including the accompanying traffic control and protection required by the Engineer, will be paid for in accordance with Article 109.04 of the Standard Specifications.

STATUS OF UTILITIES (D1)

Effective: June 1, 2016
 Revised: January 1, 2020

Utility companies and/or municipal owners located within the construction limits of this project have provided the following information regarding their facilities and the proposed improvements. The tables below contain descriptions of specific conflicts to be resolved and/or facilities that will require some action on the part of the Department's Contractor to proceed with work. Each table entry includes an identification of the action necessary and, if applicable, the estimated duration required for the resolution.

UTILITIES TO BE ADJUSTED

Conflicts noted below have been identified by following the suggested staging plan included in the contract. The company has been notified of all conflicts and will be required to obtain the necessary permits to complete its work. In some instances, resolution will be a function of the construction staging. The responsible agency must relocate or complete new installations as noted below. This work has been deemed necessary to be completed for the Department's Contractor to then work in the stage under which the item has been listed.

Pre-Stage

| STAGE / LOCATION | TYPE | DESCRIPTION | RESPONSIBLE AGENCY | DURATION OF TIME |
|---|-------------------------------------|---|--------------------|--|
| Indian Boundary Road Sta. 12+45 LT to Sta. 21+56 LT | Aerial Line and Utility Poles | Power poles and aerial lines in proposed ditch. Anticipated conflict with proposed ditch grading. | AT&T | 90 days to resolve all AT&T conflicts |
| Indian Boundary Road Sta. 12+45 LT to Sta. 13+75 LT | Aerial Line | Aerial line crossing roadway to be adjusted to provide roadway clearance. | AT&T | |
| Indian Boundary Road Sta. 16+96, 25' LT | Splice Box/ Pedestal | Splice box in proposed ditch. Anticipated conflict with proposed ditch grading. | AT&T | |
| Indian Boundary Road Sta. 19+90, 25' LT | Splice Box/ Pedestal | Splice box in proposed ditch. Anticipated conflict with proposed ditch grading. | AT&T | |
| Indian Boundary Road Sta. 19+75 24' RT | Splice Box/ Pedestal | Splice box in proposed ditch. Anticipated conflict with proposed ditch grading. | AT&T | |
| Indian Boundary Road Sta. 12+65 LT to Sta. 13+75 LT | Buried Cable Line | Buried cable line crossing Rowley Road to be adjusted to be deeper than proposed roadway. | Comcast | 90 days to resolve all Comcast conflicts |
| Indian Boundary Road Sta. 13+75 LT to Sta. 21+56 LT | Aerial Line and Utility Poles | Power poles and aerial lines in proposed ditch. Anticipated conflict with proposed ditch grading. | Comcast | |
| Indian Boundary Road Sta. 18+23 LT to Sta. 18+74 RT | Buried Cable Line | Buried cable crossing Rowley Road to be adjusted to be deeper than proposed roadway. | Comcast | |
| Indian Boundary Road Sta. 12+45 LT to Sta. 21+56 LT | Aerial Line and Utility Poles | Power poles and aerial lines in proposed ditch. Anticipated conflict with proposed ditch grading. | ComEd | 90 days to resolve all |

| STAGE / LOCATION | TYPE | DESCRIPTION | RESPONSIBLE AGENCY | DURATION OF TIME |
|---|-------------------------------------|--|--------------------------|--|
| Indian Boundary Road Sta. 16+90 LT and RT | Aerial Line and Utility Poles | Aerial line crossing roadway to be adjusted to provide roadway clearance. | ComEd | ComEd conflicts |
| Indian Boundary Road Sta. 18+26 LT to Sta. 18+24 RT | Buried Electric Line | Buried electric line crossing Rowley Road to be adjusted to be deeper than proposed roadway. | ComEd | |
| Indian Boundary Road Sta. 12+45 LT to Sta. 21+56 LT | Fiber-Optic | Power poles and aerial lines in proposed ditch. Anticipated conflict with proposed ditch grading. | MetroNet | 90 days to resolve all MetroNet conflicts |
| Indian Boundary Road Sta. 11+50 Lt. to Sta. 12+60 Lt. | Gas Main | Buried gas line in conflict with proposed storm sewer. | Nicor | 90 days to resolve all Nicor conflicts |
| Indian Boundary Road Sta. 12+60 Lt. to Sta. 13+11 Rt. | Gas Main | Buried gas line crossing roadway to be adjusted to be deeper than proposed reconstructed roadway. | Nicor | |
| Indian Boundary Road Sta. 19+26 Rt. to Sta. 19+28 Lt. | Gas Main | Buried gas line crossing roadway to be adjusted to be deeper than proposed roadway. | Nicor | |
| Indian Boundary Road Sta. 26+62 Lt. to Sta. 21+05 Lt. | Gas Main | Buried gas line crossing roadway to be adjusted to be deeper than proposed sidewalk, curb and gutter, and roadway. | Nicor | |
| Indian Boundary Road Sta. 12+45 LT to Sta. 21+56 LT | Gas Services | Buried gas services crossing the proposed roadway to be adjusted to be deeper than proposed roadway. | Nicor | |
| Indian Boundary Road Sta. 11+50 Lt. to Sta. 21+05 Lt. | Water Main | Water main and fire hydrants in conflict with proposed roadway. | Village of Plainfield | Water main work included in the contract. |

Pre-Stage: 90 Days Total Installation

The following contact information is what was used during the preparation of the plans as provided by the Agency/Company responsible for resolution of the conflict.

| Agency/Company Responsible to Resolve Conflict | Name of contact | Phone | E-mail address |
|--|-----------------------------------|------------------------------|---|
| AT&T | Steve Pesola | 630-573-5703 | Sp9653@att.com |
| Comcast | Robert L. Shulter Robert Stoll | 224-229-5861 224-229-5849 | Bob_Schulter@comcast.com Robert_Stoll@comcast.com |
| ComEd | Kyle Isek | 779-231-1740 | Kyle.isek@comed.com |
| Metronet Fiber | Todd DeTamble Korie Nellis | 630-405-3039 | Todd.DeTamble@metronetinc.com Korie.nellis@metronetinc.com |
| Nicor | Charles "Chip" Parrot | 630-388-3046 | cparrot@southernco.com |
| Village of Plainfield | Scott Threewitt | 815-436-7093 | sthreewitt@goplainfield.com |

UTILITIES TO BE WATCHED AND PROTECTED

The areas of concern noted below have been identified by following the suggested staging plan included for the contract. The information provided is not a comprehensive list of all remaining utilities, but those which, during coordination, were identified as ones which might require the Department's Contractor to take into consideration when making the determination of the means and methods that would be required to construct the proposed improvement. In some instances, the Contractor will be responsible to notify the Owner in advance of the work to take place so necessary staffing on the Owner's part can be secured.

| STAGE / LOCATION | TYPE | DESCRIPTION | OWNER |
|---|----------------------|--|-----------------------|
| Indian Boundary Road Sta. 19+75 24' RT | Splice Box/Pedestal | Splice box in proposed ditch | AT&T |
| Indian Boundary Road Sta. 18+74 RT to Sta. 20+70 RT | Buried Cable Line | Buried cable line adjacent to roadway | Comcast |
| Indian Boundary Road Sta. 18+24 RT to Sta. 19+00 LT | Buried Electric Line | Buried electric line adjacent to roadway | ComEd |
| Indian Boundary Road Sta. 13+11 Lt. to Sta. 19+28 Rt. | Gas Main | Buried gas line crossing adjacent to roadway | Nicor |
| Indian Boundary Road Sta. 20+80 Lt. to Sta. 20+60 Rt. | Water Main | Water main crossing at Creekside Drive | Village of Plainfield |

The following contact information is what was used during the preparation of the plans as provided by the owner of the facility.

| Agency/Company Responsible to Resolve Conflict | Name of contact | Phone | E-mail address |
|---|-----------------------------------|------------------------------|---|
| AT&T | Steve Pesola | 630-573-5703 | Sp9653@att.com |
| Comcast | Robert L. Shulter Robert Stoll | 224-229-5861 224-229-5849 | Bob_Schulter@comcast.com Robert_Stoll@comcast.com |
| ComEd | Kyle Isek | 779-231-1740 | Kyle.isek@comed.com |
| Metronet Fiber | Todd DeTamble Korie Nellis | 630-405-3039 | Todd.DeTamble@metronetinc.com Korie.nellis@metronetinc.com |
| Nicor | Charles "Chip" Parrot | 630-388-3046 | cparrot@southernco.com |
| Village of Plainfield | Scott Threewitt | 815-436-7093 | sthreewitt@goplainfield.com |

The above represents the best information available to the Department and is included for the convenience of the bidder. The days required for conflict resolution should be considered in the bid as this information has also been factored into the timeline identified for the project when setting the completion date. The applicable portions of the Standard Specifications for Road and Bridge Construction shall apply.

Estimated duration of time provided above for the first conflicts identified will begin on the date of the executed contract regardless of the status of the utility relocations. The responsible agencies will be working toward resolving subsequent conflicts in conjunction with contractor activities in the number of days noted.

The estimated relocation duration must be part of the progress schedule submitted by the contractor. A utility kickoff meeting will be scheduled between the Department, the Department's Contractor, and the utility companies when necessary. The Department's Contractor is responsible for contacting J.U.L.I.E. prior to all excavation work.

PUBLIC CONVENIENCE AND SAFETY (D1)

Effective: May 1, 2012

Revised: July 15, 2012

Add the following to the end of the fourth paragraph of Article 107.09:

"If the holiday is on a Saturday or Sunday and is legally observed on a Friday or Monday, the length of Holiday Period for Monday or Friday shall apply."

Add the following sentence after the Holiday Period table in the fourth paragraph of Article 107.09:

"The Length of Holiday Period for Thanksgiving shall be from 5 A.M. the Wednesday prior until 11:59 P.M. the Sunday After."

Delete the fifth paragraph of Article 107.09 of the Standard Specifications and replace with the following:

"On weekends, excluding holidays, roadways with Average Daily Traffic of 25,000 or greater, all lanes shall be open to traffic from 3 P.M. Friday until midnight Sunday, except where structure construction or major rehabilitation makes it impractical."

TREE REMOVAL

This work shall be according to Section 201 of the Standard Specifications. In addition, the following restrictions shall be adhered to: To avoid potential impacts to the northern long-eared bat, tree removal of 3-inch-diameter at breast height or greater shall not occur between April 1 and September 30 of any construction year.

TEMPORARY FENCE

Description. This work shall consist of furnishing, installing, maintaining, removing, and disposing of temporary construction fence. Temporary construction fence shall be installed at locations shown on the Drawings or as designated by the Engineer.

General. Temporary construction fence shall be installed to clearly define the project work area. The fence shall be installed according to Article 201.05 (a) Temporary Fencing of the "Standard Specifications" and the following:

The fence shall be a plastic mesh fence colored orange.

The fence shall be erected prior to beginning construction operations and shall be maintained throughout the duration of the construction project or until the Engineer determines that the fence is no longer needed. Upon completion of the project, the fence shall be removed and any damage caused by the fence installation or removal shall be repaired. The cost of repairs shall be included in the unit cost of the temporary fence.

Method of Measurement. This work will be measured for payment in-place in feet of temporary fence installed.

Basis of Payment. This work will be paid for at the contract unit price per foot for TEMPORARY FENCE. The unit price shall include all materials, labor, and equipment necessary to properly install and maintain the fence, and to remove and dispose of the used materials at the completion of the project.

EARTH EXCAVATION

202.04 Classification: Add the following;

Stripping of existing topsoil will be paid for as EARTH EXCAVATION.

All posts, railroad ties, and decorative timber in conflict with the proposed improvements shall be removed and relocated as determined by the Engineer at the time of construction. Every effort shall be made by the Contractor when removing these items to preserve them from harm. Items not relocated shall be properly disposed of by the Contractor. This work shall be included in the cost of EARTH EXCAVATION.

EMBANKMENT II (D1)

Effective: March 1, 2011

Revised: November 1, 2013

Description. This work shall be according to Section 205 of the Standard Specifications except for the following.

Material. Reclaimed asphalt shall not be used within the ground water table or as a fill if groundwater is present. The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

CONSTRUCTION REQUIREMENTS

Samples. Embankment material shall be sampled and tested before use. The contractor shall identify embankment sources, and provide equipment as the Engineer requires, for the collection of samples from those sources. Samples will be furnished to the Geotechnical Engineer a minimum of three weeks prior to use in order that laboratory tests for compaction can be performed. Embankment material placement cannot begin until tests are completed.

Placing Material. In addition to Article 202.03, broken concrete, reclaimed asphalt with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities shall be placed in 6 inches (150 mm) lifts and disked with the underlying lift until a uniform homogenous material is formed. This process also applies to the overlaying lifts. The disk must have a minimum blade diameter of 24 inches (600 mm).

When embankments are to be constructed on hillsides or existing slopes that are steeper than 3H:1V, steps shall be keyed into the existing slope by stepping and benching as shown in the plans or as directed by the Engineer.

Compaction. Soils classification for moisture content control will be determined by the Soils Inspector using visual field examination techniques and the IDH Textural Classification Chart.

When tested for density in place each lift shall have a maximum moisture content as follows.

- a) A maximum of 110 percent of the optimum moisture for all forms of clay soils.
- b) A maximum of 105 percent of the optimum moisture for all forms of clay loam soils.

Stability. The requirement for embankment stability in article 205.04 will be measured with a Dynamic Cone Penetrometer (DCP) according to the test method in the IDOT Geotechnical Manual. The penetration rate must be equal or less than 1.5 inches (38 mm) per blow.

Basis of Payment. This work will not be paid separately but will be considered as included in the various items of excavation.

RECLAIMED ASPHALT PAVEMENT FOR NON-POROUS EMBANKMENT AND BACKFILL

Effective: April 1, 2001

Revised: January 1, 2007

Add the following sentence to Article 1004.05 (a) of the Standard Specifications:

"Reclaimed Asphalt Pavement (RAP) may be used as aggregate in Non-porous Granular Embankment and Backfill. The RAP material shall be reclaimed asphalt pavement material resulting from the cold milling or crushing of an existing hot-mix bituminous concrete pavement structure, including shoulders. RAP containing contaminants such as earth, brick, concrete, sheet asphalt, sand, or other materials identified by the Department will be unacceptable until the contaminants are thoroughly removed.

Add the following sentence to Article 1004.05 (c)(2) of the Standard Specifications:

"One hundred percent of the RAP when used shall pass the 3-inch (75 mm) sieve. The RAP shall be well graded from coarse to fine. RAP that is gap-graded or single-sized will not be accepted."

TRENCH BACKFILL

208.02: Materials Add the following;

All trench backfill shall be CA-7.

505.07 Backfill: Trench backfill shall be compacted in accordance with Method 1 as described in Article 550.07 of the Standard Specifications. Compaction Methods 2 (ponding) and 3 (jetting) shall not be permitted. Backfill will be placed up to the existing pavement surface or ground subgrade, as appropriate. The removal of unused backfill will be included in the cost of this item. Quantity takeoffs and construction eligible for payment shall be based on the noted specifications.

208.03: Method of Measurement: Trench Backfill shall be measured in accordance with Article 208.03 of the Standard Specifications, with adherence to 208.03(a). Additional trench backfill constructed above the elevation of the bottom of the proposed AGGREGATE SUBGRADE IMPROVEMENT 12" will not be measured for payment.

PLANTING WOODY PLANTS

This work shall consist of planting woody plants as specified in Section 253 of the Standard Specifications with the following revisions:

Delete Article 253.03 Planting Time and substitute the following:

Spring Planting. This work shall be performed between March 15th and May 31st except that evergreen planting shall be performed between March 15th and April 30th in the northern zone.

Add the following to Article 253.03 (a) (2) and (b):

All plants shall be obtained from Illinois Nurserymen's Association or appropriate state chapter nurseries. All trees and shrubs shall be dug prior to leafing out (bud break) in the spring or when plants have gone dormant in the fall, except for the following species which are only to be dug prior to leafing out in the spring:

- Maple (*Acer* spp.)
- Buckeye (*Aesculus* spp.)
- Serviceberry (*Amelanchier* spp.)
- Birch (*Betulus* spp.)
- American Hornbeam (*Carpinus caroliniana*)
- Hickory (*Carya* spp.)
- Hawthorn (*Crataegus* spp.)
- Walnut (*Juglans* spp.)
- Tuliptree (*Liriodendron* spp.)
- Crabapple (*Malus* spp.)
- Black Tupelo (*Nyssa sylvatica*)
- American Hophornbeam (*Ostrya virginiana*)
- Oak (*Quercus* spp.)
- Sassafras (*Sassafras albidum*)
- Baldcypress (*Taxodium distichum*)
- American Linden (*Tilia americana*)

Fall Planting. This work shall be performed between October 1 and November 30 except that evergreen planting shall be performed between August 15 and October 15.

Planting dates are dependent on species of plant material and weather. Planting might begin or end prior or after above dates as approved by the Engineer. Do not plant when soil is muddy or during frost.

Add the following to Article 253.05 Transportation:

Cover plants during transport with a 70% shade mesh heavy duty tarp to prevent desiccation. Plant material transported without cover shall be automatically rejected. During loading and unloading, plants shall be handled such that stems are not stressed, scraped or broken and that root balls are kept intact.

Delete the third sentence of Article 253.07 and substitute the following:

Trees must be installed first to establish proper layout and to avoid damage to other plantings such as shrubs and perennials.

The Contractor shall be responsible for all plant layout. The layout must be performed by qualified personnel. The planting locations must be laid out as shown in the landscape plan. This will require the use of an engineer's scale to determine some dimensions. Tree locations within each planting area shall be marked with a different color stake/flag and labeled to denote the different tree species. Shrub beds limits must be painted.

All utilities shall have been marked prior to contacting the Roadside Development Unit. The Engineer will contact the Roadside Development Unit at (847) 705-4171 to approve the layout prior to installation. Allow a minimum of seven (7) working days prior to installation for approval.

Delete the first paragraph to Article 253.08 Excavation of Plant Holes and substitute with the following:

Protect structures, utilities, sidewalks, bicycle paths, knee walls, fences, pavements, utility boxes, other facilities, lawns and existing plants from damage caused by planting operations. Excavation of the planting hole may be performed by hand, machine excavator, or auger.

The excavated material shall not be stockpiled on turf, in ditches, or used to create enormous water saucer berms around newly installed trees or shrubs. Remove all excess excavated subsoil from the site and dispose as specified in Article 202.03.

Delete the second sentence of Article 253.08 Excavation of Plant Holes (a) and the third paragraph of Article 253.08(b) and substitute with the following:

Excavation of planting hole width. Planting holes for trees, shrubs, and vines shall be three times the diameter of the root mass and with 45-degree sides sloping down to the base of the root mass to encourage rapid root growth. Roots can become deformed by the edge of the hole if the hole is too small and will hinder root growth.

Planting holes dug with an auger shall have the sides cut down with a shovel to eliminate the glazed, smooth sides and create sloping sides.

Excavation of planting hole depth. The root flare shall be visible at the top of the root mass. If the trunk flare is not visible, carefully remove soil from around the trunk until the root flare is visible without damaging the roots. Remove excess soil until the top of the root mass exposes the root collar.

The root flare shall always be slightly above the surface of the surrounding soil. The depth of the hole shall be equal to the depth of the root mass minus 2" allowing the tree or shrub to sit 2" higher than the surrounding soil surface for trees.

For stability, the root mass shall sit on existing undisturbed soil. If the hole was inadvertently dug too deep, backfill and recompact the soil to the correct depth.

Excavation of planting hole on slopes. Excavate away the slope above the planting hole to create a flattened area uphill of the planting hole to prevent the uphill roots from being buried too deep. Place the excess soil on the downslope of the planting hole to extend the planting shelf to ensure roots on the downhill side of the tree remain buried. The planting hole shall be three times the diameter of the root mass and saucer shaped. The hole may be a bit elongated to fit the contour of the slope as opposed to the typical round hole on flat ground.

Add backfill to create a small berm on the downhill portion of the planting shelf to trap water and encourage movement into the soil to increase water filtration around the tree. Smooth out the slope above the plant where you have cut into the soil so the old slope and the new slope transition together smoothly.

Add the following to Article 253.08 Excavation of Plant Holes (b):

When planting shrubs in shrub beds and vines in a vine bed as shown on the plans or as directed by the Engineer, spade a planting bed edge at approximately a 45-degree angle and to a depth of approximately 3 inches around the perimeter of the shrub bed prior to placement of the mulch. Remove any debris created in the spade edging process and dispose of as specified in Article 202.03.

Delete Article 253.09 (b) Pruning and substitute with the following:

Deciduous Shrubs. Shrubs shall be pruned to remove dead, conflicting, or broken branches and shall preserve the natural form of the shrub.

Delete the third and fourth paragraphs of Article 253.10 Planting Procedures and Article 253.10 (a) and substitute the following:

Approved watering equipment shall be at the site of the work and in operational condition PRIOR TO STARTING the planting operation and DURING all planting operations OR PLANTING WILL NOT BE ALLOWED.

All plants shall be placed in a plumb position and avoid the appearance of leaning. Confirm the tree is straight from two directions prior to backfilling.

Before the plant is placed in the hole, any paper or cardboard trunk wrap shall be removed. Check that the trunk is not damaged. Any soil covering the tree's root flare shall be removed to expose the crown prior to planting.

Check the depth of the root ball in the planting hole. With the root flare exposed, the depth of the hole shall be equal to the depth of the root mass minus 2" allowing the tree or shrub to sit 2" higher than the surrounding soil surface for trees. The root flare shall always be slightly above the surface of the surrounding soil. For stability, the root ball shall sit on existing undisturbed soil. If the hole was inadvertently dug too deep, backfill and recompact the soil to the correct depth.

After the plant is placed in the hole, all cords and burlap shall be removed from the trunk. Remove the wire basket from the top three quarters (3/4) of the root ball. The remaining burlap shall be loosened and scored to provide the root system quick contact with the soil. All ropes or twine shall be removed from the root ball and tree trunk. All materials shall be disposed of properly.

The plant hole shall be backfilled with the same soil that was removed from the hole. Clay soil clumps shall be broken up as much as possible. Where rocks, gravel, heavy clay or other debris are encountered, clean topsoil shall be used. Do not backfill excavation with subsoil.

The hole shall be 1/3 filled with soil and firmly packed to assure the plant remains in plumb, then saturated with water. After the water has soaked in, complete the remaining backfill in 8" lifts, tamping the topsoil to eliminate voids, and then the hole shall be saturated again. Maintain plumb during backfilling. Backfill to the edge of the root mass and do not place any soil on top of the root mass. Visible root flare shall be left exposed, uncovered by the addition of soil.

Add the following to Article 253.10 (b):

After removal of the container, inspect the root system for circling, matted or crowded roots at the container sides and bottom. Using a sharp knife or hand pruners, prune, cut, and loosen any parts of the root system requiring corrective action.

Delete the first sentence of Article 253.10(e) and substitute with the following:

Water Saucer. All plants placed individually and not specified to be bedded with other plants, shall have a water saucer constructed of soil by mounding up the soil 4 inches high by 8 inches wide outside the edge of the planting hole.

Delete Article 253.11 and substitute the following:

Individual trees, shrubs, shrub beds, and vines shall be mulched within 48 hours after being planted. No weed barrier fabric will be required for tree and shrub plantings.

The mulch shall consist of wood chips or shredded tree bark not to exceed two (2) inches in its largest dimension, free of foreign matter, sticks, stones, and clods. Mulch shall be aged in stockpiles for a minimum of four (4) months where interior temperatures reach a minimum of 140 degrees. The mulch shall be free from inorganic materials, contaminants, fuels, invasive weed seeds, disease, harmful insects such as emerald ash borer or any other type of

material detrimental to plant growth. A sample must be supplied to the Roadside Development Unit for approval prior to performing any work. Allow a minimum of seven (7) working days prior to installation for approval.

Mulch shall be applied at a depth of 4 inches around all plants within the entire mulched bed area or around each individual tree forming a minimum 5-foot-diameter mulch ring around each tree. An excess of 4 inches of mulch is unacceptable and excess shall be removed. Mulch shall not be tapered so that no mulch shall be placed within 6 inches of the shrub base or trunk to allow the root flare to be exposed and shall be free of mulch contact.

Care shall be taken not to bury leaves, stems, or vines under mulch material. All finished mulch areas shall be left smooth and level to maintain uniform surface and appearance. After the mulch placement, any debris or piles of material shall be immediately removed from the right of way, including raking excess mulch out of turf areas in accordance with Article 202.03.

Delete Article 253.12 Wrapping and substitute the following:

Within 48 hours after planting, screen mesh shall be wrapped around the trunk of all deciduous trees with a caliper of 1-inch or greater. Multi-stem or clump form trees, with individual stems having a caliper of 1-inch or greater, shall have each stem wrapped separately. The screen mesh shall be secured to itself with staples or single wire strands tied to the mesh. Trees shall be wrapped at time of planting, before the installation of mulch. The lower edge of the screen wire shall be in continuous contact with the ground and shall extend up to a minimum of 36 inches or to the lowest major branch, whichever is less. Replacement plantings shall not be wrapped.

Delete Article 253.13 Bracing and substitute with the following:

Unless otherwise specified by the Engineer, within 48 hours after planting all deciduous and evergreen trees, with the exception of multi-stem or clump form specimens, over 8 feet in height shall require three 6-foot-long steel posts equally spaced from each other and adjacent to the outside of the ball. The posts shall be driven vertically to a depth of 18 inches below the bottom of the hole. The anchor plate shall be aligned perpendicular to a line between the tree and the post. The tree shall be firmly attached to each post with a double guy of 14-gauge steel wire. The portion of the wire in contact with the tree shall be encased in a hose of a type and length approved by the Engineer.

During the life of the contract, within 72 hours the Contractor shall straighten any tree that deviates from a plumb position. The Contractor shall adjust backfill compaction and install or adjust bracing on the tree as necessary to maintain a plumb position. Replacement trees shall not be braced.

Delete the second sentence of the first paragraph of Article 253.14 Period of Establishment and substitute the following:

This period shall begin in April and end in November of the same year.

Delete the last sentence of the first paragraph of Article 253.15 Plant Care and substitute the following:

This may require pruning, cultivating, tightening and repairing supports, repair of wrapping, and furnishing and applying sprays as necessary to keep the plants free of insects and disease. The Contractor shall provide plant care a minimum of every two weeks, or within three days following notification by the Engineer. All requirements for plant care shall be considered as included in the cost of the contract.

Delete the first paragraph of Article 253.15 Plant Care (a) and substitute with the following:

During plant care, additional watering shall be performed at least every two weeks during the months of May through December. The contractor shall apply a minimum of 35 gallons of water per tree, 25 gallons per large shrub,

15 gallons per small shrub, and 4 gallons per vine. The Engineer may direct the Contractor to adjust the watering rate and frequency depending upon weather conditions.

Add the following to Article 253.15 Plant Care (c):

The Contractor shall correct any vine growing across the ground plane that should be growing up desired vertical element (noise wall, retaining wall, fence, knee wall, etc.). Work may include, but is not limited to, carefully weaving vines through fence and/or taping vines to vertical elements.

Add the following to Article 253.15 Plant Care (d):

The Contractor shall inspect all trees, shrubs, and vines for pests and diseases at least every two weeks during the months of initial planting through final acceptance. Contractor must identify and monitor pest and diseases and determine action required to maintain the good appearance, health, and top performance of all plant material. Contractor shall notify the Engineer with its inspection findings and recommendations within 24 hours of findings. The recommendations for action by the Contractor must be reviewed and by the Engineer for approval/rejection. All approved corrective activities will be included in the cost of the contract and shall be performed within 48 hours following notification by the Engineer.

Delete Article 253.16 Method of Measurement and substitute with the following:

Trees, shrubs, evergreens, vines, and seedlings will be measured as each individual plant.

- (a) This work will be measured for initial payment, in place, for plant material found to be in live and healthy condition by June 1.
- (b) This work will be measured for final payment, in place, for plant material found to be in live and healthy condition upon final acceptance by the department.

Delete Article 253.17 Basis of Payment and substitute the following:

This work will be paid for at the contract unit price per each for TREES, SHRUBS, EVERGREENS, or VINES, of the species, root type, and plant size specified; and per unit for SEEDLINGS.

The unit price shall include the cost of all materials, mulch, equipment, labor, plant care, watering, and disposal required to complete the work as specified herein and to the satisfaction of the Engineer. Payment will be made according to the following schedule.

- (a) Initial Payment. Upon completion of planting, mulch covering, wrapping, and bracing, 75 percent of the pay item(s) will be paid.
- (b) Final Payment. After the successful completion of all required replacement plantings, clean-up work and receipt of the "Final Acceptance of Landscape Work" memorandum from the Bureau of Maintenance, or upon execution of a third-party bond, the remaining 25 percent of the pay item(s) will be paid.

FAILURE TO COMPLETE PLANT CARE AND ESTABLISHMENT WORK ON TIME

Should the Contractor fail to complete the plant care and/or supplemental watering work within the scheduled timeframe as specified in the Special Provision for "Planting Woody Plants," "Planting Perennial Plants," "Perennial Plant Care," and "Supplemental Watering," or within 36 hours notification from the Engineer, or within such extended times as may have been allowed by the Department, the Contractor shall be liable to the Department in the amount of:

- \$50.00 per tree/per day
- \$40.00 per large shrub/per day
- \$35.00 per small shrub/per day
- \$20.00 per vine/per day
- \$20.00 per perennial/per day
- \$20.00 per sq yd sod/per day

not as penalty but as liquidated damages for each calendar day or a portion thereof of overrun in the contract time or such extended time as may have been allowed.

In fixing the damages as set out herein, the desire is to establish a mode of calculation for the work since the Department's actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the Department's actual loss and fairly takes into account the loss of the tree(s) if the watering or plant care is delayed. The Department shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

SUPPLEMENTAL WATERING

This work will include watering sod, trees, shrubs, vines, and perennials at the rates specified and as directed by the Engineer.

Schedule: Watering will only begin after the successful completion of all period of establishment requirements. Water trees, shrubs, vines, perennials, plugs, and sod every 7 days throughout the growing season (April 1 to November 30). The Engineer may direct the Contractor to adjust the watering rate and frequency depending upon weather conditions.

Watering must be completed in a timely manner. When the Engineer directs the Contractor to do supplemental watering, the Contractor must begin the watering operation within 24 hours of notice. **The Contractor shall give an approximate time window of when they will begin at the work location to the Engineer. The Engineer shall be present during the watering operation.** A minimum of 10 units of water per day must be applied until the work is complete.

Should the Contractor fail to complete the work on a timely basis or within such extended times as may have been allowed by the Department, the Contractor shall be liable to the Department liquidated damages as outlined in the **"Failure to Complete Plant Care and Establishment Work on Time" special provision.**

In fixing the damages as set out herein, the desire is to establish a mode of calculation for the work since the Department's actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the Department's actual loss and fairly takes into account the loss of the trees if the watering is delayed. The Department shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

Source of Water: The Contractor shall notify the Engineer of the source of water used and provide written certification that the water does not contain chemicals harmful to plant growth.

Rate of Application: The normal rates of application for watering are as follows. The Engineer will adjust these rates as needed depending upon weather conditions.

- 35 gallons per tree
- 25 gallons per large shrub
- 15 gallons per small shrub
- 4 gallons per vine
- 3 gallons per perennial plant (gallon)
- 2 gallons per perennial plant (quart)
- 2 gallons per perennial plant (plug)
- 3 gallons per square foot for sodded areas

Method of Application: A spray nozzle that does not damage small plants must be used when watering all vegetation. Water shall be applied at the base of the plant to keep as much water as possible off plant leaves. An open hose may be used to water trees, shrubs, and seedlings if mulch and soil are not displaced by watering. The water shall be applied to individual plants in such a manner that the plant hole shall be saturated without allowing the water to overflow beyond the earthen saucer. Watering of plants in beds shall be applied in such a manner that all plant holes are uniformly saturated without allowing the water flow beyond the periphery of the bed. Water shall slowly infiltrate into soil and completely soak the root zone. The Contractor must supply metering equipment as needed to assure the specified application rate of water.

Method of Measurement: Supplemental watering will be measured in units of 1,000 gallons of water applied as directed.

Basis of Payment: This work will be paid for at the contract unit price per unit of SUPPLEMENTAL WATERING, measured as specified. Payment will include the cost of all water, equipment, and labor needed to complete the work specified herein and to the satisfaction of the Engineer.

EROSION CONTROL BLANKET (SPECIAL)

This Special Provision revises Section 251 of the Standard Specifications for Road and Bridge Construction to eliminate the use of Excelsior Blanket for Erosion Control Blanket. This work shall consist of furnishing, transporting, and placing 100 % biodegradable erosion control blanket over seeded areas as detailed on the plans, according to Section 251 except as modified herein.

Delete Article 1081.10(a) Excelsior Blanket.

Delete the first paragraph of Article 1081.10 (b) Knitted Straw Mat and substitute the following:

Knitted Straw Mat. Knitted straw mat shall be a machine-produced mat of 100% clean, weed free agricultural straw. The straw shall be evenly distributed throughout the blanket to a loose thickness of approximately 1/2 in. (13 mm) with a permissible variation of $\pm 1/8$ in. (± 3 mm). The blanket shall be covered on top and bottom sides with a 100% biodegradable woven natural organic fiber netting. No plastic netting will be allowed. The top netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands to form an approximate 0.50 x 1.0 in. (1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread.

The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches (5-12.5cm) from the edge) as an overlap guide for adjacent mats.

Short-term photodegradable erosion control blanket will not be allowed.

Delete Article 1081.10(d) Wire Staples.

Add the following to Article 1081.10 (e) Wood Stakes:

Biodegradable plastic stakes will be allowed. The biodegradable plastic anchor shall be approximately 6 in (15.24 cm) in length. No metal wire stakes will be allowed.

Add the following to Article 251.06(b) Method of Measurement:

(b) Measured Quantities. EROSION CONTROL BLANKET, SPECIAL will be measured for payment in place in square yards of actual surface area covered.

Add the following to Article 251.07 Basis of Payment:

EROSION CONTROL BLANKET, SPECIAL shall be paid at the Contract unit price per square yard.

AGGREGATE SURFACE COURSE FOR TEMPORARY ACCESS

This work shall be in accordance with Section 400 of the Standard Specifications, the details in the drawings, and the following special provision.

This work consists of the installation and removal of temporary ramps at all intersections and driveways in the total reconstructed areas. The width of the ramps shall match the street and driveway widths. The installation of the ramps shall be installed within the time constraints as follows:

- A. Intersection Ramps—By 5 P.M. of the same day after commencing the pavement removal at each intersection.
- B. Driveway Ramps—By 5 P.M. of the same day after commencing pavement removal contiguous to each driveway.

Revise Article 402.10 of the Standard Specifications to read:

“402.10 For Temporary Access. The contractor shall construct and maintain aggregate surface course for temporary access to private entrances, commercial entrances and roads according to Article 402.07 and as directed by the Engineer.

The aggregate surface course shall be constructed to the dimensions and grades specified below, except as modified by the plans or as directed by the Engineer.

- (a) Private Entrance. The minimum width shall be 12 ft (3.6 m). The minimum compacted thickness shall be 6 in. (150 mm). The maximum grade shall be eight percent, except as required to match the existing grade.
- (b) Commercial Entrance. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The maximum grade shall be six percent, except as required to match the existing grade.
- (c) Road. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The grade and elevation shall be the same as the removed pavement, except as required to meet the grade of any new pavement constructed.

Maintaining the temporary access shall include relocating and/or regrading the aggregate surface course for any operation that may disturb or remove the temporary access. The same type and gradation of material used to construct the temporary access shall be used to maintain it.

When use of the temporary access is discontinued, the aggregate shall be removed and utilized in the permanent construction or disposed of according to Article 202.03.”

Add the following to Article 402.12 of the Standard Specifications:

“Aggregate surface course for temporary access will be measured for payment as each for every private entrance, commercial entrance, or road constructed for the purpose of temporary access. If a residential drive, commercial entrance, or road is to be constructed under multiple stages, the aggregate needed to construct the second or subsequent stages will not be measured for payment but shall be included in the cost per each of the type specified.”

Revise the second paragraph of Article 402.13 of the Standard Specifications to read:

“Aggregate surface course for temporary access will be paid for at the contract unit price per each for TEMPORARY ACCESS (PRIVATE ENTRANCE), TEMPORARY ACCESS (COMMERCIAL ENTRANCE) or TEMPORARY ACCESS (ROAD).

Partial payment of the each amount bid for temporary access, of the type specified, will be paid according to the following schedule:

- (a) Upon construction of the temporary access, sixty percent of the contract unit price per each, of the type constructed, will be paid.
- (b) Subject to the approval of the Engineer for the adequate maintenance and removal of the temporary access, the remaining forty percent of the pay item will be paid upon the permanent removal of the temporary access.”

TEMPORARY SURFACE OVER TRENCH FOR UTILITY IMPROVEMENTS

This work shall be in accordance with Section 400 of the Standard Specifications, the details in the plans, and the following special provision.

This work consists of the installation and removal of temporary surface over excavated trenches for utility improvements prior to the temporary pavement or permanent surface restoration being installed.

Contractor may use stone, steel plates, or any other means acceptable to the Engineer to maintain access. If stone is used and kept clean, it may be used in the construction of the driveways or roadway, if acceptable to the Engineer.

Revise Article 402.10 to read:

“402.10 For Temporary Access. The contractor shall construct and maintain aggregate surface course for temporary access to private entrances, commercial entrances and roads according to Article 402.07 and as requested by the Engineer.

The aggregate surface course shall be constructed flush with the existing surface grade.

- (b) In sidewalks. The minimum compacted thickness shall be 4 in. (150 mm) if stone is used.

Maintaining the temporary surface over trench shall include relocating and/or regrading the aggregate surface course for any operation that may disturb or remove the temporary surface. When use of the temporary surface over trench is discontinued, the aggregate shall be removed and utilized in the permanent construction or disposed of according to Article 202.03.”

Revise the second paragraph of Article 402.13 of the Standard Specifications to read:

“Temporary surface over trench will not be paid for separately but shall be included in the cost of the utility pipe. If a trench is to be excavated under multiple stages, the temporary surface over trench needed to construct the second or subsequent stages will not be measured for payment.”

PREPARATION OF BASE

Delete article 358.06 and replace with the following;

“Preparation of base will not be measured for payment.”

Delete article 358.07 and replace with the following;

“Preparation of base will not be paid for separately and shall be included in the cost of binder course.”

HOT-MIX ASPHALT BINDER AND SURFACE COURSE (D1)

Effective: November 1, 2019

Revised: December 1, 2021

Revise Article 1004.03(c) to read:

“(c) Gradation. The coarse aggregate gradations shall be as listed in the following table.

| Use | Size/Application | Gradation No. |
|-----------------------|--|--|
| Class A-1, A-2, & A-3 | 3/8 in. (10 mm) Seal | CA 16 or CA 20 |
| Class A-1 | 1/2 in. (13 mm) Seal | CA 15 |
| Class A-2 & A-3 | Cover Coat | CA 14 |
| HMA High ESAL | IL-19.0; Stabilized Subbase IL-19.0 | CA 11 ^{1/} |
| | SMA 12.5 ^{2/} | CA 13 ^{4/} , CA 14, or CA 16 |
| | SMA 9.5 ^{2/} | CA 13 ^{3/4/} or CA 16 ^{3/} |
| | IL-9.5 | CA 16, CM 13 ^{4/} |
| | IL-9.5FG | CA 16 |
| HMA Low ESAL | IL-19.0L | CA 11 ^{1/} |
| | IL-9.5L | CA 16 |

1/ CA 16 or CA 13 may be blended with the CA 11.

2/ The coarse aggregates used shall be capable of being combined with the fine aggregates and mineral filler to meet the approved mix design and the mix requirements noted herein.

3/ The specified coarse aggregate gradations may be blended.

4/ CA 13 shall be 100 percent passing the 1/2 in. (12.5 mm) sieve.”

Revise Article 1004.03(e) of the Supplemental Specifications to read:

“(e) Absorption. For SMA the coarse aggregate shall also have water absorption ≤ 2.0 percent.”

Revise the “High ESAL” portion of the table in Article 1030.01 to read:

| | | |
|------------|-----------------|--|
| “High ESAL | Binder Courses | IL-19.0, IL-9.5, IL-9.5FG, IL-4.75, SMA 12.5, Stabilized Subbase IL-19.0 |
| | Surface Courses | IL-9.5, IL-9.5FG, SMA 12.5, SMA 9.5” |

Revise Note 2. and add Note 6 to Article 1030.02 of the Standard Specifications to read:

| “Item | Article/Section |
|---|-----------------|
| (g)Performance Graded Asphalt Binder (Note 6) | 1032 |
| (h)Fibers (Note 2) | |

Note 2. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements. Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T305 requirements. The RAS shall be from a certified source that produces either Type I or Type 2. Material shall meet requirements noted herein and the actual dosage rate will be determined by the Engineer.

Note 6. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay, except where modified herein. The asphalt binder shall be a SBS PG 76-22 for IL-4.75, except where modified herein..”

Revise table in Article 1030.05(a) of the Standard Specifications to read:

| "MIXTURE COMPOSITION (% PASSING)" ^{1/} | | | | | | | | | | | | |
|---|------------|-----|----------|-------------------|---------|-------------------|------------------|------------------|----------|------------------|------------|-------------------|
| Sieve Size | IL-19.0 mm | | SMA 12.5 | | SMA 9.5 | | IL-9.5mm | | IL-9.5FG | | IL-4.75 mm | |
| | min | max | min | max | min | max | min | max | min | max | min | max |
| 1 1/2 in (37.5 mm) | | | | | | | | | | | | |
| 1 in. (25 mm) | | 100 | | | | | | | | | | |
| 3/4 in. (19 mm) | 90 | 100 | | 100 | | | | | | | | |
| 1/2 in. (12.5 mm) | 75 | 89 | 80 | 100 | | 100 | | 100 | | 100 | | 100 |
| 3/8 in. (9.5 mm) | | | | 65 | 90 | 100 | 90 | 100 | 90 | 100 | | 100 |
| #4 (4.75 mm) | 40 | 60 | 20 | 30 | 36 | 50 | 34 | 69 | 60 | 75 ^{6/} | 90 | 100 |
| #8 (2.36 mm) | 20 | 42 | 16 | 24 ^{4/} | 16 | 32 ^{4/} | 34 ^{5/} | 52 ^{2/} | 45 | 60 ^{6/} | 70 | 90 |
| #16 (1.18 mm) | 15 | 30 | | | | | 10 | 32 | 25 | 40 | 50 | 65 |
| #30 (600 μm) | | | 12 | 16 | 12 | 18 | | | 15 | 30 | | |
| #50 (300 μm) | 6 | 15 | | | | | 4 | 15 | 8 | 15 | 15 | 30 |
| #100 (150 μm) | 4 | 9 | | | | | 3 | 10 | 6 | 10 | 10 | 18 |
| #200 (75 μm) | 3.0 | 6.0 | 7.0 | 9.0 ^{3/} | 7.5 | 9.5 ^{3/} | 4.0 | 6.0 | 4.0 | 6.5 | 7.0 | 9.0 ^{3/} |
| #635 (20 μm) | | | ≤ 3.0 | | ≤ 3.0 | | | | | | | |
| Ratio Dust/Asphalt Binder | | 1.0 | | 1.5 | | 1.5 | | 1.0 | | 1.0 | | 1.0 |

- 1/ Based on percent of total aggregate weight.
- 2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.
- 3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.
- 4/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above the percentage stated on the table.
- 5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.
- 6/ When the mixture is used as a binder, the maximum shall be increased by 0.5 percent passing."

Revise Article 1030.05(b) of the Standard Specifications to read:

(b) Volumetric Requirements. The target value for the air voids of the HMA shall be 4.0 percent, for IL-4.75 and SMA mixtures it shall be 3.5 percent and for Stabilized Subbase it shall be 3.0 percent at the design number of

gyrations. The voids in the mineral aggregate (VMA) and voids filled with asphalt binder (VFA) of the HMA design shall be based on the nominal maximum size of the aggregate in the mix and shall conform to the following requirements.

| Mix Design | Voids in the Mineral Aggregate (VMA), % Minimum for Ndesign | | | | |
|----------------------------|--|------|------|--|------|
| | 30 | 50 | 70 | 80 | 90 |
| IL-19.0 | | 13.5 | 13.5 | | 13.5 |
| IL-9.5 | | 15.0 | 15.0 | | |
| IL-9.5FG | | 15.0 | 15.0 | | |
| IL-4.75 ^{1/} | | 18.5 | | | |
| SMA-12.5 ^{1/2/5/} | | | | 17.0 ^{3/} /16.0 ^{4/} | |
| SMA-9.5 ^{1/2/5/} | | | | 17.0 ^{3/} /16.0 ^{4/} | |
| IL-19.0L | 13.5 | | | | |
| IL-9.5L | 15.0 | | | | |

- 1/ Maximum draindown shall be 0.3 percent according to Illinois Modified AASHTO T 305.
- 2/ The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30°F.
- 3/ Applies when specific gravity of coarse aggregate is ≥ 2.760.
- 4/ Applies when specific gravity of coarse aggregate is < 2.760.
- 5/ For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone”

Revise the last paragraph of Article 1102.01 (a) (5) of the Standard Specifications to read:

“IL-4.75 and Stone Matrix Asphalt (SMA) mixtures which contain aggregate having absorptions greater than or equal to 2.0 percent, or which contain steel slag sand, shall have minimum surge bin storage plus haul time of 1.5 hours.”

Add after third sentence of Article 1030.09(b):

“ If the Contractor and Engineer agree the nuclear density test method is not appropriate for the mixture, cores shall be taken at random locations determined according to the QC/QA document "Determination of Random Density Test Site Locations". Core densities shall be determined using the Illinois Modified AASHTO T 166 or T 275 procedure.”

Revise Table 1 and Note 4/ of Table 1 in Article 406.07(a) of the Standard Specifications to read:

| | Breakdown/Intermediate Roller (one of the following) | Final Roller (one or more of the following) | Density Requirement |
|---|--|---|---|
| IL-9.5, IL-9.5FG, IL-19.0 ^{1/} | V _D , P, T _B , 3W, O _T , O _B | V _S , T _B , T _F , O _T | As specified in Section 1030 |
| IL-4.75 and SMA ^{3/ 4/} | T _B , 3W, O _T | T _F , 3W | As specified in Section 1030 |
| Mixtures on Bridge Decks ^{2/} | T _B | T _F | As specified in Articles 582.05 and 582.06. |

“4/ The Contractor shall provide a minimum of two steel-wheeled tandem rollers (T_B), and/or three-wheel (3W) rollers for breakdown, except one of the (T_B) or (3W) rollers shall be 84 inches (2.14 m) wide and a weight of 315 pound

per linear inch (PLI) (5.63 kg/mm) and one of the (T_B) or (3W) rollers can be substituted for an oscillatory roller (O_T). T_F rollers shall be a minimum of 280 lb/in. (50 N/mm). The 3W and T_B rollers shall be operated at a uniform speed not to exceed 3 mph (5 km/h), with the drive roll for T_B rollers nearest the paver and maintain an effective rolling distance of not more than 150 ft (45 m) behind the paver.”

Add the following after the fourth paragraph of Article 406.13 (b):

“The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design’s G_{mb}.”

Revise first paragraph of Article 1030.10 of the Standard Specifications to read:

“A test strip of 300 ton (275 metric tons), except for SMA mixtures it will be 400 ton (363 metric ton), will be required for each mixture on each contract at the beginning of HMA production for each construction year according to the Manual of Test Procedures for Materials “Hot Mix Asphalt Test Strip Procedures”. At the request of the Producer, the Engineer may waive the test strip if previous construction during the current construction year has demonstrated the constructability of the mix using Department test results.”

Revise third paragraph of Article 1030.10 of the Standard Specifications to read:

“When a test strip is constructed, the Contractor shall collect and split the mixture according to the document “Hot-Mix Asphalt Test Strip Procedures”. The Engineer, or a representative, shall deliver split sample to the District Laboratory for verification testing. The Contractor shall complete mixture tests stated in Article 1030.09(a). Mixture sampled shall include enough material for the Department to conduct mixture tests detailed in Article 1030.09(a) and in the document “Hot-Mix Asphalt Mixture Design Verification Procedure ” Section 3.3. The mixture test results shall meet the requirements of Articles 1030.05(b) and 1030.05(d), except Hamburg wheel tests will only be conducted on High ESAL mixtures during production.”

WINTERIZED TEMPORARY ACCESS

Effective: January 1, 2012

Revised: March 5, 2012

Description. This work shall consist of constructing, maintaining and removing winterized temporary access for private and commercial entrances and side roads designed for use throughout the winter months.

Materials. Materials shall be according to the following.

| ITEM | ARTICLE/SECTION |
|-----------------|-----------------|
| Hot-Mix Asphalt | 1030 |

Construction Requirements

For projects lasting longer than one construction season, the contractor shall construct and maintain temporary access composed of an HMA surface course over an existing aggregate temporary access. The contractor shall install the winterized temporary access prior to winter shut down at the direction of the engineer. The top 2” of the existing aggregate temporary access should be removed and replaced with 2” of Hot-Mix Asphalt. Compensation will be given for the winterized temporary access at the time of the installation of the Hot-Mix Asphalt surface course.

HMA Surface Course. The Hot-Mix Asphalt surface course shall be 2 in. thick when compacted. HMA Surface Course, Mix “D”, N50 shall be used except as modified by the plans or as directed by the Engineer. This work shall be constructed in accordance with the applicable portions of Section 406 of the Standard Specifications and as

directed by the Engineer. The material shall conform to the applicable portions of Section 1030 of the Standard Specifications.

The winterized temporary access shall be constructed to the dimensions and grades of the existing aggregate temporary access.

Maintaining the winterized temporary access shall include repairing the HMA surface course after any operation that may disturb or remove the winterized temporary access to the satisfaction of the Engineer.

When use of the winterized temporary access is discontinued, the winterized temporary access shall be removed according to Article 440.03 of the Standard Specifications. The material shall be disposed of according to Article 202.03 of the Standard Specifications or may be utilized in the permanent construction with the approval of the Engineer.

Method of Measurement. Winterized temporary access for private and commercial entrances and roads will be measured for payment at the contract unit price per square yard for every private entrance, commercial entrance or road constructed for the purpose of winterized temporary access.

Basis of Payment. Winterized temporary access for private and commercial entrances and roads will be paid for at the contract unit price per square yard for TEMPORARY ACCESS (WINTERIZE) as specified in the plans. Partial payment of the square yard amount bid for each winterized temporary access will be paid according to the following schedule:

- (a) Upon construction of the winterized temporary access, sixty percent of the contract unit price per square yard will be paid.
- (b) Subject to the approval of the Engineer for the adequate maintenance and removal of the winterized temporary access, the remaining forty percent of the pay item will be paid upon the permanent removal of the temporary access.

PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH

Description. This work shall consist of constructing Portland cement concrete driveway pavement of the thickness specified in accordance with the applicable portions of Section 423 of the Standard Specifications and the details shown in the specifications.

General. The driveway pavement shall be constructed on a compacted 4-inch-thick layer of subbase stone having a gradation of CA-6. The Portland cement concrete shall have 6"x6" #10/#10 welded wire fabric imbedded within.

Basis of Payment: This work will be measured and paid for at the contract unit price per square yard for PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT of the thickness specified. The cost of the welded wire fabric, subbase stone, and any excavation required to construct the driveway as specified shall be included in the cost of this pay item.

PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH

Description. This work shall be in accordance with Section 424 of the Standard Specifications, the details in the drawings, and the following special provision.

General. The thickness of the sidewalk shall be increased to 6" across the width of residential driveways and 8 inches across the width of commercial, park, school, and church driveways and have 6-inch by 6-inch, #10/#10, welded wire fabric imbedded within. No additional compensation will be provided for the increase in thicknesses across driveways

and welded wire fabric. The thickness of the sidewalk shall be increased to 8 inches adjacent to brick pavers. No additional compensation will be provided for the increase in thicknesses across driveways or adjacent to brick pavers.

Sidewalk shall be constructed on a compacted 4-inch-thick layer of subbase granular material, Type B, having a gradation of CA-6. The cost of the subbase stone shall be included in the cost of this pay item.

The sidewalk shall be constructed with contraction joints spaced evenly at 5-foot intervals. The contraction joints shall be 1 inch in depth and may be either sawcut or tooled at the time of finishing.

Basis of Payment: This work will be measured and paid for at the contract unit price per square foot of PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH..

DETECTABLE WARNINGS

Description. This work shall consist of constructing a surface of truncated domes in accordance with the applicable portions of Section 424 of the Standard Specifications and drawing details, except as modified herein.

424.02 Materials. Add the following;

(c) Detectable warning plates shall be Armor-Tile Cast-in-Place. The color shall be Brick Red #22144. Shop drawings shall be submitted to the engineer for approval before installation.

Basis of Payment: This work will be measured and paid for at the contract unit price per square foot for DETECTABLE WARNINGS and shall include the cost of the tile and installation.

PIPE CULVERT REMOVAL

Add the following to Article 501.06 Method of Measurement.

The void in the trench left from removing the existing pipe culvert shall be filled with trench backfill material.

Add the following to Article 501.07 Basis of Payment

Trench backfill will not be paid for separately but shall be included in the cost of the PIPE CULVERT REMOVAL.

CONCRETE SURFACE COLOR TREATMENT

Description. This work shall consist of concrete substrate surface preparation, furnishing material and staining concrete surfaces. That work shall be performed according to manufacturer's requirements, as specified herein and according to the plans.

Materials. Concrete stain system shall be according to the requirements of the Manufacturer:

Custom Rock, Inc.
2020 West 7th Street
St. Paul, MN 55116
(651)699-1345 (Jim Rogers)
www.customrock.com

Coloration.

Concrete surfaces shall be cleaned prior to applying color stain. The prepared surfaces shall be cleaned such that all curing compounds, laitance, dirt, and other foreign material and substances are removed.

All areas receiving form liner textured surface shall receive concrete stain, except the 4-inch top coping and top face of the headwalls and wingwalls shall not receive color treatment. Final coloration applied to the form liner surfaces shall simulate the appearance of real stone, including natural variation in color.

The final color palette of the form liner textured surface shall be a combination of natural earthtones closely matching the coloring of the stone veneer on the "Settlers' Park" sign located 100 feet northeast of Plainfield Village Hall at the following address:

24401 West Lockport Street
Plainfield, IL 60544

Submittals.

- (a) Manufacturer's technical data sheets and installation instructions.
- (b) The 3' x 3' test sample described in the special provision for FORM LINER TEXTURED SURFACE.

Method of Measurement. This work will be measured for payment in place and the area computed in square feet.

Basis of Payment. Staining concrete will be paid for at the contract unit price per square foot for CONCRETE SURFACE COLOR TREATMENT, which price will be payment in full for all materials, equipment, and labor necessary to complete the work as herin specified.

FORM LINER TEXTURED SURFACE

Work shall be according to the applicable portions of Article 503.06 of the Standard Specifications and as shown in the Drawings, except as modified herein:

"The form liner pattern (below the 4-inch coping) shall be:

New England Drystack (#12003)
Custom Rock Formliner
2020 West 7th Street
St. Paul, MN 55116
(651)699-1345 (Jim Rogers)
www.customrock.com

The form liner pattern for the edges of the 4-inch coping shall be:

Texture #T307 Fractured Granite 1/4"
Also by Custom Rock

The top surface of the 4-inch coping shall be finished with a roughened texture to simulate natural stone."

Installation.

Form liners shall be installed in accordance with the manufacturer's recommendations to achieve the highest quality concrete appearance possible. Form liners shall withstand concrete placement pressures without leakage causing physical or visual defects. After each use, liners shall be cleaned and made free of build-up prior to the next placement, and they shall be visually inspected for blemishes or tears. If necessary, the form liners shall be repaired

in accordance with the manufacturer's recommendations. All form liner panels that will not perform as intended or are no longer repairable shall be replaced.

The liner shall be securely attached to the forms according to the manufacturer's recommendations. Liners shall be attached to each other with flush seams and seams filled as necessary to eliminate visible evidence in cast concrete. Liner butt joints shall be blended into the pattern so as to create no visible vertical or horizontal seams or conspicuous form butt joint marks. Liner joints must fall within pattern joints or reveals. Finished textures shall be continuous without visual disruption and properly aligned over adjacent and multiple liner panels. Continuous or single liner panels shall be used where liner joints may interrupt the intended pattern.

Wall ties shall be coordinated with the liner and form to achieve the least visible result.

Curing methods shall be compatible with the desired aesthetic result. Use of curing compounds will not be allowed. Concrete slump requirements shall meet the form liner manufacturer's recommendations for optimizing the concrete finish.

It is the intention of this specification that no rubbing of flat areas or other repairs shall be required after form removal. The finished exposed formed concrete surfaces shall be free of visible vertical seams, horizontal seams, and butt joint marks. Grinding and chipping of finished formed surfaces shall be avoided.

The form liner manufacturer shall provide custom-made forms for the ends of the headwalls and wingwalls. These forms shall be compatible with the headwall and wingwall geometry shown in the Drawings and shall provide a seamless transition into the normal pattern along surfaces not treated with form liner. Cost shall be included with FORM LINER TEXTURED SURFACES."

Submittals. A 3' x 3' test sample shall be supplied to the Engineer for Village approval 30 days prior to headwall and wingwall construction. This sample shall be representative of the upper portion of the headwall as viewed from the roadway side and shall include:

Concrete cap with textures and coloration
Form liner textured surface with coloration"

WATER MAIN

Add the following to Article 561.01 Description. This work shall be in accordance with Sections 20, 40, 41, and standard drawings of the SSWSC, and 561 of the Standard Specifications, the details in the drawings, and the following special provision.

562.02 Materials. Materials shall meet the specifications of Section 40 of the SSWSC and the following;

40-2.01 PIPE MATERIALS

Add the following paragraph to this section:

All pipe and materials used in performance of the work shall be clearly marked as to strength, class, or grade. Pipe and materials not so marked shall be subject to rejection.

40-2.01B DUCTILE IRON PIPE

Replace this section with the following:

Unless otherwise noted in the project documents, all water main pipe shall be ductile iron, minimum thickness Class 52, with push-on joints, designed in accordance with ANSI/AWWA C151/A21.51, except gaskets shall be neoprene or other synthetic rubber. Where noted on the Drawings, joints for ductile iron water main installed via trenchless construction shall be gasketed mechanical joints in accordance with ANSI/AWWA C111/A21.11. All fittings shall be mechanically restrained joint fittings and the restraining components shall be ductile iron in accordance with applicable requirements of ANSI/AWWA C110/A21.10 and/or C153/A21.53. Interior of pipe shall have a bituminous coating, as specified in AWWA C151. Exterior of pipe shall be coated with a layer of arc-sprayed zinc in accordance with ISO 8179. The mass of the zinc applied shall be 200 grams per square meter of pipe surface area. A finishing layer of bituminous coating shall be applied over the zinc coating as specified in AWWA C151. Inner surfaces of all ductile iron water piping shall have a cement mortar lining in accordance with the requirements of AWWA C104. Type of pipe shall be clearly marked on pipe by manufacturer.

All ductile iron water main pipes shall have tracer wire installed along water main for locating purposes. Tracer wire shall be included in the cost of the water main pipe.

All ductile iron piping and fittings shall be polyethylene-encased in accordance with AWWA C105. Polyethylene encasement shall be comprised of three layers of co-extruded linear low-density polyethylene film fused into one. Any rips or punctures shall be repaired prior to backfilling pipe. Polyethylene encasement shall be taped to provide a snug fit along the pipe.

In cases where corporation stops are to be tapped into mains, pipe wall thickness shall be furnished as specified in AWWA C151 to provide engagement of four threads, or pipe saddles shall be furnished as approved by the manufacturer.

40-2.05A CAST IRON OR DUCTILE IRON PIPE FITTINGS

Replace this section with the following:

All standard water main pipe fittings sizes 3 inches through 24 inches shall be ductile iron Class 350 conforming to requirements of ANSI/AWWA C153/A21.53 and ANSI/AWWA C111/21.11. All water main fittings shall have a cement mortar lining in accordance with the requirement of ANSI/AWWA C104/A21.4. Fittings shall be furnished with a rated working pressure of 150 psi. All fitting joints shall be mechanical joint.

“MEG-A-LUG” retainers shall be used at all connections of water mains to bends, tees, crosses, reducers, and other fittings. All mechanical joints shall have a minimum of six (6) Sacrificial-Nuts.

Special fittings shall be furnished and installed as specified. CONTRACTOR shall be responsible for furnishing and installing all fittings necessary to construct the water main and appurtenances in the locations shown in the plans at the specified depth of bury and for making all necessary connections to existing mains.

No additional payment will be allowed for water main fittings. The cost of all water main fittings shall be considered incidental to the cost of the water main piping.

41-2.02 EXCAVATION, BACKFILL, AND CLEAN UP DEPTH OF PIPE COVER

Replace the second paragraph with the following:

The minimum depth of cover for water main and water service lines shall be 5.5 feet below existing ground or the proposed grade to the crown of the pipe. The depth shall be increased as shown on the plan and profile sheets or as necessary to avoid conflict with other utilities at no change in bid price. Deviation from grade shall not exceed ±0.1 feet. Special care shall be taken with regard to grade in the vicinity of existing and planned utility crossings.

The proposed water main shall be protected with a minimum temporary ground cover of at least 3.0 feet during construction activities between April 1 and November 1 of the same calendar year. In the case that water main construction is not completed and the final proposed grade above the water main is not placed between these dates, a minimum temporary ground cover of at least 5.5 feet must be maintained above the water main between November 1 and April 1 of the following year.

41-2.04 LAYING OF PIPE ON CURVES

Add the following paragraph to this section:

No additional payment will be allowed for water main fittings. The cost of all water main fittings shall be considered incidental to the cost of the water main piping.

41-2.10 THRUST BLOCKING

Replace the first, second, and sixth paragraphs in this section with the following:

Water main shall be installed in accordance with AWWA C600 for iron pipe. All plugs, caps, tees, hydrants, bends, and other fittings for water mains shall be provided with restrained joints.

The minimum length of pipe to be restrained shall be as shown in the following table:

REQUIRED LENGTH OF RESTRAINED PIPE BEYOND FITTING IN FEET

| Fitting | Minimum Length—Ft |
|--------------------------------|-------------------|
| 90 Degree Bend (12 inches) | 25 |
| 45 Degree Bend (12 inches) | 11 |
| 22 1/2 Degree Bend ≤ 16 inches | 5 |
| 11 1/4 Degree Bend ≤ 16 inches | 3 |
| Fire Hydrant Leads | All Joints |
| End of Line Tees (12 inches)* | 15 (Along Branch) |

*Restrained run length on tees is assumed to be 18 feet on each side of fitting.

This table assumes horizontal orientation of fittings, 150 psi test pressure plus a 100 psi water hammer allowance, ductile iron pipe, and a 6-foot bury. Lengths shall be adjusted for other conditions and fittings.

Gland body, wedges, and wedge actuating components shall be ductile iron conforming to ASTM A536 Grade 65-45-12. Bolts and tie rods shall be high-strength, low-alloy steel conforming to AWWA C111. All nuts and bolts shall be corrosion-resistant Corten.

Gaskets that include metal locking segments vulcanized into the gasket to grip the pipe to provide joint restraint are not acceptable.

561.03 General. Delete Articles 561.03(a) and 561.03(b) of the Standard Specifications and refer to Sections 20 and 41 of the SSWSC and the following:

20-1A METHOD OF PAYMENT

Add the following section:

All trench excavation shall be included in the cost of the pipe or associated structure being installed and will not be measured separately for payment.

20-2 DEFINITIONS

Final Backfill—Final backfill shall consist of backfilling from the top of initial backfill to the natural or finished surface line or to the underside of proposed pavement base.

20-3.01 FOUNDATION, BEDDING, AND HAUNCHING

Replace this section with the following:

Foundation, bedding, and haunching material shall be gradation CA-7 meeting the Standard Specifications. A minimum of 6 inches of bedding shall be required for all water main.

20-3.02 INITIAL BACKFILL

Add the following paragraph to this section:

Where aggregate trench backfill is required underneath paved surfaces per SSWSC requirements, initial backfill material shall be gradation CA-7 meeting the requirements of the standard specifications.

20-4.04 REMOVAL OF WATER

Add the following paragraphs to this section:

CONTRACTOR shall take all necessary precautions during the dewatering operation to protect adjacent structures against subsidence, flooding, or other damage. Prior to dewatering, CONTRACTOR shall take into account the effect of its proposed dewatering operation on existing private water supply systems and shall make arrangements with property owners for protecting their supplies or providing alternative supply.

In areas where continuous operation of dewatering pumps is necessary, CONTRACTOR shall avoid noise disturbance to nearby residences to the greatest extent possible.

Any permits necessary for the dewatering operations shall be obtained and paid for by CONTRACTOR.

No extra payment will be made for dewatering of the trench.

The expense for making all extra excavations necessary to prevent water from interfering with the proper construction of the work, and for forming of all dams, digging sumps or pump wells, bailing, and pumping shall be borne by CONTRACTOR.

Dewatering discharges shall be provided with erosion control filters to remove sediments and to protect open drainage ways and surface waters. Erosion control filters required for dewatering operations will not be paid for separately and shall be included in the cost of the water main pay items.

20-4.05 TRENCH EXCAVATION, FOUNDATION, BEDDING AND HAUNCHING

Replace the second sentence in the ninth paragraph in this section with the following:

Haunching shall extend for the entire width of the trench and length of the pipe for all pipe materials at all locations.

Add the following to the fourth paragraph of this section:

Unsuitable soils shall be brought to the attention of ENGINEER prior to removal. No payment shall be made for foundation material where the unsuitable soils have not been viewed by ENGINEER.

Add the following to the end of this section:

Excavation By Hand Or Machine

The elevations shown for existing work and ground are reasonably correct but are not guaranteed to be absolutely accurate. No extras will be allowed because of variations between plans and actual grades.

The trench shall be excavated so the pipe can be laid to the alignment and depth required. The trench shall not be excavated more than 100 feet in advance of pipe laying.

Prior to all excavating, CONTRACTOR shall become thoroughly familiar with the site and site conditions.

20-4.06B FINAL BACKFILL

Add the following paragraphs to this section:

Where aggregate trench backfill is required underneath paved surfaces per SSWSC requirements, initial backfill material shall be gradation CA-7 meeting the requirements of the standard specifications.

All trenches shall be backfilled using specified material so that excessive lengths of trench are not left open. In general, the backfilling operation shall proceed so that no more than 100 feet of trench is open behind the pipe laying operation.

In all areas, the backfill shall be left below the original surface to allow for placement of crushed aggregate surfacing, plus any pavement replacement required. If settlement occurs, CONTRACTOR shall restore the surface improvements at its own expense to maintain the finished surface.

20-5 MEASUREMENT AND PAYMENT

Add the following at the end of this section:

Bedding and haunching for all piping on the project shall be considered included in the cost of the pipe and will not be measured separately for payment.

20-5.03A SELECT GRANULAR BACKFILL AS INITIAL BACKFILL

Add the following at the end of this section

Select Granular Backfill shall be paid for at the CONTRACT unit price for TRENCH BACKFILL.

20-5.03A SELECT GRANULAR BACKFILL AS FINAL BACKFILL

Add the following at the end of this section

Select Granular Backfill shall be paid for at the CONTRACT unit price for TRENCH BACKFILL.

41-2.14A PRESSURE TEST

Delete this section and refer to leakage test.

41-2.14C LEAKAGE TEST

Replace paragraph (1) with the following:

As part of the construction, water mains shall be pressure and leakage tested in accordance with this section. All testing shall be performed before curb and gutter or other permanent type surface improvement work begins. OWNER and ENGINEER shall be notified at least 24 hours before the test. The filling of the water main shall be at a rate set by OWNER with all hydrants and whips in the open position and slowly closed in the order in which water appears. A form documenting the test procedure and results shall be signed by CONTRACTOR and OWNER's representative witnessing the test.

All newly-laid pipe shall be subjected to a hydrostatic pressure of 150 pounds per square inch, in accordance with AWWA C-600. Duration of each pressure test shall be for a period of not less than two hours. Each valved section of pipe shall be filled with water and the specified test pressure shall be applied by means of a pump connected to the pipe. Before applying the specified test pressure, all air shall be expelled from the pipe. All leaks shall be repaired until tight. Any cracked or defective pipes, fittings, valves, or hydrants discovered in consequence of this pressure test shall be removed and replaced and the test repeated until satisfactory results are obtained.

All testing shall be performed before the installation of water service lines.

All materials, work, and equipment necessary for this work shall be furnished by CONTRACTOR and considered included in the contract unit prices for water main pay items.

41-2.15 DISINFECTION OF WATER MAIN

Add the following to the end of this section:

Disinfection of the water main shall be accomplished in accordance with Illinois Environmental Protection Agency requirements. All disinfection shall be completed under the direct supervision of a Licensed Village of Plainfield Water Operator or designated representative. Disinfection of water main will not be paid for separately but will be included in the contract unit prices for water main pay items.

41-2.15H FINAL FLUSHING AND TESTING

Add the following to the end of this section:

Arrangements must be made with the Village of Plainfield Public Works Department prior to flushing. Sampling locations will be determined by the Village of Plainfield Water Department or designated representative during construction. A sampling tap will be required to test the source. Sampling from fire hydrants shall not be allowed.

41-2.16 WATER USAGE

The initial flush, fill, chlorination and sampling of newly installed water main will incur a water charge. The water cost will be calculated based on the size and length of the water main on the design plans and the number of times the system is flushed. The minimum charge will be \$100.00 per flushing.

Add **Article 109.05 Expenses Incurred by the Department**

561.05 Basis of Payment. Delete the first paragraph add the following;

This work will be measured and paid for at the contract unit price per foot of DUCTILE IRON WATER MAIN of the diameter specified. This price shall include all bends, tees, crosses, reducers, plugs, fittings, thrust blocks, retainer glands, encasement, chlorination, pressure and leakage testing, bedding material, haunching material, initial backfill material, polyethylene encasement, tracer wire, labor and equipment necessary to construct the water main as specified herein.

TRENCHLESS CONSTRUCTION

Description. This work shall consist of constructing water main pipe via trenchless construction techniques. This work shall be in accordance with Sections 20, 40, 41, 23 of the SSWSC, the applicable special provisions in the contract, and the following special provision.

Construction Technique. CONTRACTOR has the option of choosing its trenchless construction technique acceptable to OWNER and jurisdictional permitting agencies.

General.

23-3.02B CURRENT TERMS

Add the following paragraph to (6) Horizontal Directional Drilling (HDD);

Ductile iron pipe installed via horizontal directional drilling shall be equipped with low profile flexible restrained joints such as Flex-Ring, TR Flex, meeting the applicable requirements of ANSI/AWWA A21.11/C111. Gripping push on joint gaskets or restrained joint gaskets are not permitted. All ductile iron pipe shall be installed per DIPRA's

Horizontal Directional Drilling with Ductile Iron Pipe Handbook to include strict adherence to maximum joint deflection allowances.

All water main installed via trenchless construction methods shall meet all applicable requirements of the WATER MAIN special provision.

Method of Measurement and Basis of Payment.

Trenchless construction of pipe shall be measured and paid for at the contract unit price per foot for TRENCHLESS CONSTRUCTION OF DUCTILE IRON WATER MAIN of the diameter specified. The station ranges shown on the plans are the maximum length of trenchless construction that will be paid for. The unit price shall include the pipe, welding of joints, pipe spacers, pea gravel, brick and grout, excavation, work shafts, receiving shafts, sheeting, bracing, shims, chocks, lubricants, drilling fluids, disposal of surplus materials, bedding, haunching, initial backfill, trench backfill, tracer wire, and other miscellaneous items and labor needed to complete the work as specified.

FIRE HYDRANTS TO BE REMOVED

Description. This work shall consist removing existing fire hydrants. The shall be in accordance with the SSWSC and standard details and the following special provision and the following;

CONTRACTOR shall remove and dispose of fire hydrants and auxiliary valve in box assemblies a minimum of 2 feet below the existing or proposed finished ground surface. The fire hydrant lead shall be abandoned in place by mechanically capping the end. The void space created from removing the assemblies should be backfilled with trench backfill material meeting the requirements of Section 208.

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the contractor unit price per each FIRE HYDRANTS TO BE REMOVED and shall include all labor and materials including trench backfill needed to backfill the trench. Surface restoration will be paid for separately.

FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX

Description. This work shall consist of installing a new fire hydrant with lead and auxiliary valve and box. This work shall be in accordance with Sections 20, 40, 42, 44, 45, the standard drawings of the SSWSC, and the following special provision.

General.

44-3.02 CAST IRON VALVE BOXES

Add the following to this section:

Valve boxes shall be adjustable, two piece cast iron, five and one-quarter inch (5-1/4") shaft roadway-type and no-tilt drop cover with "WATER" cast into cover. A rubber valve box stabilizer, Valve Box Adapter II, manufactured by Adaptor Inc. shall be provided. Valve boxes must be installed with additional available upward or downward travel when adjusted to finished grade.

45-2.02 HYDRANT DETAILS

Add the following to this section:

All fire hydrants shall be Mueller Super Centurion 200, Mueller Super Centurion 250HS, or Clow medallion F2545, conforming to AWWA C-502, with 5 1/4-inch main valve opening, two 2 1/2-inch National Standard hose connections, one 4 1/2-inch National Standard pumper connection, open counter-clockwise. Reduced pressure principle backflow preventers and/or double detector check valves shall be installed on fire safety systems connected to the public water supply. All fire hydrants shall be new, manufactured either in the year that construction begins or the previous year.

All fire hydrants not in service shall be bagged or identified with signage.

45-2.04 PAINTING

Add the following to this section:

All fire hydrants shall be painted red.

45-3 CONSTRUCTION DETAILS

Add the following to this section:

Hydrant leads shall be 6-inch swivel anchoring coupling. Hydrant tees shall be used in lieu of swivel anchoring coupling pipe if necessary.

The fire hydrant shall be installed with the flange break line at least 2 inches above finished grade and no more than 6 inches above finished grade. The hydrant shall be installed with the steamer nozzle at least 18 inches above ground level, and the traffic flange positioned per the manufacturer's recommendation.

All hydrants shall be bed on a minimum 6 inches of CA-7 aggregate. The concrete base and thrust blocking shall not interfere with the hydrant weephole.

CONTRACTOR shall furnish all necessary fittings in the fire hydrant lead to install the fire hydrant in a plumb condition at locations shown in the plans and at the specified depth of bury. The pumper nozzle of all fire hydrants shall be installed with the nozzle pointing toward the street unless otherwise noted. ENGINEER reserves the right to alter the location of fire hydrants from that shown in the plans.

CONTRACTOR shall verify depth of bury for each fire hydrant, CONTRACTOR shall provide vertical and horizontal extensions as necessary for fire hydrant to match into the surrounding ground or elevation at the location noted on the plans.

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the contractor unit price per each FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX and shall include all labor and materials as described including fire hydrant tee, swivel, water main lead, auxiliary valve in box, fire hydrant, drainage pit, concrete base, thrust blocking, vertical and horizontal extensions, and mechanical joints.

GATE VALVE WITH VAULT

Description. This work consists of furnishing and installing a gate valve in a vault. The work shall be in accordance with Sections 42, 44, and standard drawings of the SSWSC, and the following special provision.

General.

42-2.01 MANUFACTURE AND MARKING

Add the following to this section:

Valves 12 inches and smaller shall be gate valves with the following features: mechanical joint, resilient wedge, cast iron or ductile iron, bronze-mounted, O-ring seal, bronze non-rising stems, constructed in accordance with AWWA C515. Valves shall be tested to 500 psi with a 250 psi working pressure. Gate valves shall have stainless steel bolts and nuts on bonnet and stuffing box. Gate valves shall be provided with a fully-enclosed sealed, grease-packed internal-gear manual operator with a 2-inch square operating nut. Valves shall have clockwise closing direction. Valves shall have ANSI 125 standard flanges or Victaulic coupling ends for valves installed in vaults.

42-3 END CONNECTIONS

Replace this section with the following:

All water main valves shall have mechanical joint ends unless otherwise specified. Meg-A-Lug retainer glands, series 1100 by EBBA Iron, Inc. shall be used on all mechanical joint valve ends.

44-3.01 VALVE VAULTS OR CHAMBERS

All valve vaults shall be precast reinforced concrete only with concentric cone. Joints shall be either flexible watertight rubber gaskets or pre-formed bituminous plastic gaskets consisting of a homogeneous blend of refined hydro-carbon resins and plasticizing compound reinforced with inert mineral filler. All valve vaults shall have no more than two adjusting rings with a minimum of 4 inches and a maximum of 12 inches of adjusting rings. All lifting holes, joints between precast reinforced concrete sections, and gaps between pipes and structures shall be tuckpointed with hydraulic cement. All castings shall be set on bitumastic material. Bitumastic material shall be placed between precast reinforced concrete sections and all adjusting rings.

Valve vault frames shall be Neenah R-1713, EJ 1051-Z1, or CertainTeed (PI) Pamrex, with heavy duty gasketed, self sealing, closed lid with concealed pick holes and with "water" cast on the lid (see Village Standard Detail WAT4090).

Method of Measurement and Basis of Payment. Gate valves and vaults shall be measured and paid for at the contractor unit price per each GATE VALVE WITH VAULT of the valve size and vault diameter specified.

CUT AND CAP EXISTING WATER MAIN

Description. This work shall consist of cutting and capping the existing water main to be abandoned.

The existing water main to be abandoned shall be cut and capped where indicated on the drawings. The excavated trench shall be backfilled with trench backfill according to Section 208. The water main being abandoned shall be capped with a mechanical joint cap. The live section of the water main shall have thrust blocking according to the SSWSC and the special provision for WATER MAIN. Any existing water main removal needed to cut and cap existing water main to the satisfaction of the engineer shall not be measured for payment but shall be included in the cost of this pay item.

Method of Measurement and Basis of Payment. Cutting and capping existing water main shall be measured and paid for at the contract unit price per each cut location for CUT AND CAP EXISTING WATER MAIN of the specified

water main diameter. The price shall include all labor, equipment, and materials necessary to complete the work including excavation, removals, disconnections, pipe sealing, capping the existing water main, thrust blocking, and trench backfill.

CONNECTION TO EXISTING WATER MAIN

Description. This work shall consist of connecting the new water main with the existing water main at locations shown on the plans. This work shall be in accordance with Sections 20, 40, 41, and the standard drawings of the SSWSC, the special provision for WATER MAIN and the following special provision.

41-2.11 CONNECTION TO EXISTING MAINS

Add the following to this section:

Where shown on the plans, CONTRACTOR shall make connections to existing mains. Connections shall be performed to minimize time that the distribution system is out of service, but in no case shall service be interrupted without prior 48 hours' notice to the ENGINEER and for more than four hours.

Method of Measurement and Basis of Payment. Connection to existing water main shall be measured and paid for at the contract unit price per each for CONNECTION TO EXISTING WATER MAIN of the existing water main diameter size specified. The unit price bid shall include all labor, equipment, excavation, bedding, haunching, initial backfill, removal of existing water main, fittings, reducers, couplings, thrust blocks, retainer glands, and tapping saddle necessary to perform the connection as specified.

EXPLORATORY EXCAVATION FOR WATER MAIN IMPROVEMENTS

Description. This work shall be in accordance with Section 22 of the SSWSC excluding Sections 22-3 and 22-4 and the following special provision.

22-2 EXPLORATORY EXCAVATION-CONSTRUCTION DETAILS

Replace the first paragraph in this section with the following:

Excavations shall be made by CONTRACTOR as necessary to locate existing utilities within the project limits.

Method of Measurement and Basis of Payment. Exploratory excavation will not be measured for payment and paid for separately and shall be included in the cost of the various water main improvement pay items.

EXPLORATORY EXCAVATION

Description. This work shall consist of performing exploratory excavation to determine the depth, location, size, and existing material of existing public and private utilities where shown on the plans, needed for the project, or directed by the ENGINEER. This work shall be in accordance with Section 22 of the SSWSC excluding Sections 22-3 & 22-4 and the following special provision.

22-2 EXPLORATORY EXCAVATION-CONSTRUCTION DETAILS

Replace the first paragraph in this section with the following:

Excavations shall be made by CONTRACTOR as necessary to locate existing utilities within the project limits. Explored trenches shall be backfilled with material meeting trench backfill specifications.

Method of Measurement and Basis of Payment. Exploratory excavation will not be measured for payment and paid for separately and shall be included in the cost of MOBILIZATION.

PLUG EXISTING PIPE UNDERDRAIN

Description. This work shall be in accordance with Section 551 of the Standard Specifications, the details in the drawings, and the following special provision.

General. This work shall consist of plugging existing pipe underdrain and abandoning it in place where directed by the Engineer.

Designated pipe underdrains shall be abandoned by being plugged with Class SI concrete and brick and suitable mortar to the satisfaction of the Engineer. The existing pipe underdrain shall be plugged for a depth of 12 inches, or the diameter of the pipe, whichever is greater and to the satisfaction of the Engineer.

Pipe underdrain cutting and removal and any excavation required to plug and abandon pipe underdrain to the satisfaction of the Engineer shall not be measured for payment.

Basis of Payment: This work will not be paid for separately and shall be included in the cost of DRAINAGE STRUCTURE TO BE REMOVED.

DRAINAGE STRUCTURE TO BE REMOVED

Description. This work shall be in accordance with Section 605 of the Standard Specifications, the details in the drawings, and the following special provision.

General. This work shall consist of removing utility structures including inlets, manholes, and catch basins in accordance with Section 605 of the Standard Specifications. The void in the ground left from removing the structure shall be filled with compacted granular backfill meeting the requirements for trench backfill. Unless otherwise noted on the plans, any existing pipes entering the structure to be removed shall be protected and shall remain in place.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price each for DRAINAGE STRUCTURE TO BE REMOVED and includes all labor, material, removal and disposal of the structure, earth excavation and trench backfill.

MANHOLES, CATCH BASINS, AND INLETS

Description. This work shall be in accordance with Section 602 of the Standard Specifications, the details in the drawings, and the following special provision.

General. Closed lids shall be embossed "STORM" in the middle of the lid and "VILLAGE OF PLAINFIELD" on the outside of the lid according to the details in the plans. All structures shall be constructed in accordance with the details included herein.

Structures located within pavement shall have one rubber adjustment riser, Infra-Riser by East Jordan.

Replace **Article 602.10 Flat Slab Tops** with the following;

“The Contractor shall be responsible for determining which manholes require a flat slab top. Manholes with flat slab tops and Type 8 grates shall be constructed with adjustment rings with a minimal height of 6 inches below the grate.”

Method of Measurement and Basis of Payment. The work will be measured and paid for at the contract unit price per each for MANHOLES, CATCH BASINS, and INLETS of the type, diameter, and frame and lid/grate specified.

ADJUSTMENTS AND RECONSTRUCTIONS

Revise the first paragraph of Article 602.04 to read:

“**602.04 Concrete.** Cast-in-place concrete for structures shall be constructed of Class SI concrete according to the applicable portions of Section 503. Cast-in-place concrete for pavement patching around adjustments and reconstructions shall be constructed of Class PP-1 concrete, unless otherwise noted in the plans, according to the applicable portions of Section 1020.”

Revise the third, fourth and fifth sentences of the second paragraph of Article 602.11(c) to read:

“Castings shall be set to the finished pavement elevation so that no subsequent adjustment will be necessary, and the space around the casting shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b.”

Revise Article 603.05 to read:

“**603.05 Replacement of Existing Flexible Pavement.** After the castings have been adjusted, the surrounding space shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b.”

Revise Article 603.06 to read:

“**603.06 Replacement of Existing Rigid Pavement.** After the castings have been adjusted, the pavement and HMA that was removed, shall be replaced with Class PP-1 concrete, unless otherwise noted in the plans, not less than 9 in. (225 mm) thick. The pavement may be opened to traffic according to Article 701.17(e)(3)b.”

The surface of the Class PP concrete shall be constructed flush with the adjacent surface.”

Revise the first sentence of Article 603.07 to read:

“**603.07 Protection Under Traffic.** After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b.”

Add the following to Article 603.08:

“The Contractor will be required to use a steel plate or plates to close any gaps occurring when a frame is offset from the structure. The steel plate shall be 1/2” thick and approximately 6” wide by 24” long. Some adjustment in size may be necessary to prevent the steel plate from overhanging the outside of the structure wall. The steel plate

shall be bedded in and covered with mortar. This Work shall be included in the cost of structure adjustments or structure reconstructions.”

DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (D1)

Effective: April 1, 2011

Revised: April 2, 2011

Add the following to Article 603.02 of the Standard Specifications:

- “(i) Temporary Hot-Mix Asphalt (HMA) Ramp (Note 1) 1030
- “(j) Temporary Rubber Ramps (Note 2)

Note 1. The HMA shall have maximum aggregate size of 3/8 in. (95 mm).

Note 2. The rubber material shall be according to the following.

| Property | Test Method | Requirement |
|-----------------------------|-------------|----------------|
| Durometer Hardness, Shore A | ASTM D 2240 | 75 ±15 |
| Tensile Strength, psi (kPa) | ASTM D 412 | 300 (2000) min |
| Elongation, percent | ASTM D 412 | 90 min |
| Specific Gravity | ASTM D 792 | 1.0–1.3 |
| Brittleness, °F (°C) | ASTM D 746 | -40 (-40)” |

Revise Article 603.07 of the Standard Specifications to read:

“603.07 Protection Under Traffic. After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b.

When castings are under traffic before the final surfacing operation has been started, properly sized temporary ramps shall be placed around the drainage and/or utility castings according to the following methods.

- (a) Temporary Asphalt Ramps. Temporary hot-mix asphalt ramps shall be placed around the casting, flush with its surface and decreasing to a featheredge in a distance of 2 ft (600 mm) around the entire surface of the casting.
- (b) Temporary Rubber Ramps. Temporary rubber ramps shall only be used on roadways with permanent posted speeds of 40 mph or less and when the height of the casting to be protected meets the proper sizing requirements for the rubber ramps as shown below.

| Dimension | Requirement |
|---|---|
| Inside Opening | Outside dimensions of casting + 1 in. (25 mm) |
| Thickness at inside edge | Height of casting ± 1/4 in. (6 mm) |
| Thickness at outside edge | 1/4 in. (6 mm) max. |
| Width, measured from inside opening to outside edge | 8 1/2 in. (215 mm) min |

Placement shall be according to the manufacturer’s specifications.

Temporary ramps for castings shall remain in place until surfacing operations are undertaken within the immediate area of the structure. Prior to placing the surface course, the temporary ramp shall be removed. Excess material shall be disposed of according to Article 202.03.”

TRAFFIC CONTROL AND PROTECTION (ARTERIALS)

Effective: February 1, 1996

Revised: March 1, 2011

Specific traffic control plan details and Special Provisions have been prepared for this contract. This work shall include all labor, materials, transportation, handling and incidental work necessary to furnish, install, maintain and remove all traffic control devices required as indicated in the plans and as approved by the Engineer.

When traffic is to be directed over a detour route, the Contractor shall furnish, erect, maintain and remove all applicable traffic control devices along the detour route according to the details shown in the plans.

Method of Measurement: All traffic control (except “Traffic Control and Protection (Expressways)” and temporary pavement markings) indicated on the traffic control plan details and specified in the Special Provisions will be measured for payment on a lump sum basis.

Basis of Payment: All traffic control and protection will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL).

Temporary pavement markings will be paid for separately unless shown on a Standard.

TRAFFIC CONTROL PLAN

Effective: September 30, 1985

Revised: January 1, 2007

Traffic Control shall be according to the applicable sections of the Standard Specifications, the Supplemental Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", any special details and Highway Standards contained in the plans, and the Special Provisions contained herein.

Special attention is called to Article 107.09 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

The Contractor shall contact the District One Bureau of Traffic at least 72 hours in advance of beginning work.

Standards:

| | |
|-----------|---|
| 701001-02 | OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY |
| 701006-05 | OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5m) 24" (600 mm) FROM PAVEMENT EDGE |
| 701011-04 | OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY |
| 701301-04 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS |
| 701311-03 | LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY |
| 701501-06 | URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED |
| 701801-06 | SIDEWALK, CORNER OR CROSSWALK CLOSURE |
| 701901-08 | TRAFFIC CONTROL DEVICES |
| 720001-01 | SIGN PANEL MOUNTING DETAILS |
| 720006-04 | SIGN PANEL ERECTION DETAILS |
| 720011-01 | METAL POSTS FOR SIGNS, MARKER, & DELINEATORS |

Details:

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)
DETOUR SIGNING FOR CLOSING STATE HIGHWAYS (TC-21)
ARTERIAL ROAD INFORMATION SIGN (TC-22)

Special Provisions:

TRAFFIC CONTROL AND PROTECTION (ARTERIALS)
MAINTENANCE OF ROADWAYS
PUBLIC CONVENIENCE AND SAFETY
TEMPORARY INFORMATION SIGNING
TRAFFIC CONTROL DEVICES - CONES (BDE)
WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

TEMPORARY INFORMATION SIGNING

Effective: November 13, 1996
Revised: January 29, 2020

Description.

This work shall consist of furnishing, installing, maintaining, relocating for various states of construction and eventually removing temporary informational signs. Included in this item may be ground mount signs, skid mount signs, truss mount signs, bridge mount signs, and overlay sign panels which cover portions of existing signs.

Materials.

Materials shall be according to the following Articles of Section 1000 - Materials:

| | <u>Item</u> | <u>Article/Section</u> |
|-----|-------------------------|------------------------|
| a.) | Sign Base (Note 1) | 1090 |
| b.) | Sign Face (Note 2) | 1091 |
| c.) | Sign Legends | 1091 |
| d.) | Sign Supports | 1093 |
| e.) | Overlay Panels (Note 3) | 1090.02 |

- Note 1. The Contractor may use 5/8 inch (16 mm) instead of 3/4 inch (19 mm) thick plywood.
- Note 2. The sign face material shall be in accordance with the Department's Fabrication of Highway Signs Policy.
- Note 3. The overlay panels shall be 0.08 inch (2 mm) thick.

GENERAL CONSTRUCTION REQUIREMENTS

Installation.

The sign sizes and legend sizes shall be verified by the Contractor prior to fabrication.

Signs which are placed along the roadway and/or within the construction zone shall be installed according to the requirements of Article 701.14 and Article 720.04. The signs shall be 7 ft (2.1 m) above the near edge of the pavement

and shall be a minimum of 2 ft (600 mm) beyond the edge of the paved shoulder. A minimum of two (2) posts shall be used.

The attachment of temporary signs to existing bridges, sign structures or sign panels shall be approved by the Engineer. Any damage to the existing signs and/or structures due to the Contractor's operations shall be repaired or signs replaced, as determined by the Engineer, at the Contractor's expense.

Method of Measurement.

This work shall be measured for payment in square feet (square meters) edge to edge (horizontally and vertically).

All hardware, posts or skids, supports, bases for ground mounted signs, connections, which are required for mounting these signs will be included as part of this pay item.

Basis of Payment. This work shall be paid for at the contract unit price per square foot (square meter) for TEMPORARY INFORMATION SIGNING.

SIGN PANEL–TYPE 1

This work shall be done in accordance with Section 720 of the Standard Specifications and the detail on the plans except as modified herein.

Sticker provided by the Municipality shall be hole punched with the month and year and placed on the back of each sign panel. Sign panels shall be installed using rivets not bolts. All sign panels shall be diamond grade material.

All panels are to be 0.125-gauge thickness.

Street Name Signs–Streets with 40 Mph Speed Limit or Less:

Signs shall be green with white letters. Street names shall have an initial uppercase letter with lowercase letters after 6-inch uppercase letters, 4-inch lowercase letters. Supplementary names (Ave, St,) shall have an initial uppercase letter with lowercase letters after, 3-inch uppercase letters, 2.25-inch lowercase letters. Panel heights shall be adjusted to fit any tails on letters. Diamond-grade sheeting, 0.125-gauge thickness, series C letters.

Supplementary lettering to indicate the type of street (such as Street, Avenue, or Road) or the section of the City (such as NW) may be in smaller lettering, at least 2 inches high. Conventional abbreviations may be used except for the street name itself.

Stack street name if necessary due to length of name.

Light pole mounting-

- Signs up to 21" in length require Metro Wing Brackets, #8 Metro Brackets.
- Signs 24" to 30" require Jumbo Wing Bracket or #800 Metro Brackets.
- Signs 30" to 42" require Jumbo Wing Brackets or #800 Metro Brackets with 12" extension.
- Signs 42" to 60" require Cantilever Arm Brackets, full length, top and bottom. Signs shall not extend more than 6" past the end of the bracket.
- Bracket banding shall be 3/4 x 0.030 stainless steel.
- Maximum sign length is 48". Signs longer than 48" consult with Municipality for appropriate mounting requirements or possible need to stack street name due to length.
- Street name signs shall be mounted directed away from the intersection.

UNISTRUT post mounting-

- Must use 2 blades, single sided, center-bolted to UNISTRUT post, with each end bolted together using spacers. No cross bracket supports will be allowed, and both signs must be individually mounted to post.
- Mounting height shall be a minimum 10-foot clearance, if mounted alone or on street light.
- If mounted on same post as stop sign, 1-foot clearance is required between top of sign and bottom of street name sign.

REMOVE SIGN PANEL
REMOVE SIGN PANEL ASSEMBLY
RELOCATE SIGN PANEL
RELOCATE SIGN PANEL ASSEMBLY

Description. This work shall consist of removing, temporarily storing, and relocating sign assemblies and posts. This work shall be in accordance with Sections 724, 728, 729, and 730 of the Standard Specifications, the details in the drawings, and the following special provision

Where indicated in the plans, existing sign panels and posts shall be carefully removed by the Contractor and stored offsite until construction activities are complete near the location area. The sign post shall be driven into the ground at the new location per the applicable section of the Standard Specifications according to the existing post material.

Method of Measurement and Basis of Payment. This work will be measured and paid for under the respective pay items: REMOVE SIGN PANEL ASSEMBLY-TYPE B, REMOVE SIGN PANEL-TYPE 1, REMOVE SIGN PANEL-TYPE 2, RELOCATE SIGN PANEL ASSEMBLY-TYPE B, RELOCATE SIGN PANEL-TYPE 1, RELOCATE SIGN PANEL-TYPE 2.

FRICITION AGGREGATE (D1)

Effective: January 1, 2011
 Revised: December 1, 2021

Revise Article 1004.03(a) of the Standard Specifications to read:

“**1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA).** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate for HMA shall be according to the following table.

| Use | Mixture | Aggregates Allowed |
|---------|---------------|--|
| Class A | Seal or Cover | <u>Allowed Alone or in Combination</u> ^{5/} : Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete |

| Use | Mixture | Aggregates Allowed | |
|------------------------------|--|--|---|
| HMA Low ESAL | Stabilized Subbase or Shoulders | <u>Allowed Alone or in Combination</u> ^{5/} : Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{1/} Crushed Concrete | |
| HMA High ESAL Low ESAL | Binder IL-19.0 or IL-19.0L SMA Binder | <u>Allowed Alone or in Combination</u> ^{5/ 6/} : Crushed Gravel Carbonate Crushed Stone ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Concrete ^{3/} | |
| HMA High ESAL Low ESAL | C Surface and Binder IL-9.5 IL-9.5FG or IL-9.5L | <u>Allowed Alone or in Combination</u> ^{5/} : Crushed Gravel Carbonate Crushed Stone ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{4/} Crushed Concrete ^{3/} | |
| HMA High ESAL | D Surface and Binder IL-9.5 or IL-9.5FG | <u>Allowed Alone or in Combination</u> ^{5/} : Crushed Gravel Carbonate Crushed Stone (other than Limestone) ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{4/} | |
| | | <u>Other Combinations Allowed:</u> | |
| | | <i>Up to...</i> | <i>With...</i> |
| | | 25% Limestone | Dolomite |
| | | 50% Limestone | Any Mixture D aggregate other than Dolomite |
| 75% Limestone | Crushed Slag (ACBF) or Crushed Sandstone | | |

| Use | Mixture | Aggregates Allowed | |
|-------------------------------------|--|--|--|
| HMA High ESAL | E Surface IL-9.5 SMA Ndesign 80 Surface | <u>Allowed Alone or in Combination</u> ^{5/ 6/} : | |
| | | Crushed Gravel Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone. | |
| | | <u>Other Combinations Allowed:</u> | |
| | | <i>Up to...</i> | <i>With...</i> |
| | | 50% Dolomite ^{2/} | Any Mixture E aggregate |
| 75% Dolomite ^{2/} | Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone | | |
| 75% Crushed Gravel ^{2/} | Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF), or Crushed Steel Slag | | |
| HMA High ESAL | F Surface IL-9.5 SMA Ndesign 80 Surface | <u>Allowed Alone or in Combination</u> ^{5/ 6/} : | |
| | | Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone. | |
| | | <u>Other Combinations Allowed:</u> | |
| | | <i>Up to...</i> | <i>With...</i> |
| | | 50% Crushed Gravel ^{2/} or Dolomite ^{2/} | Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or Crystalline Crushed Stone |

- 1/ Crushed steel slag allowed in shoulder surface only.
- 2/ Carbonate crushed stone (limestone) and/or crushed gravel shall not be used in SMA Ndesign 80.
- 3/ Crushed concrete will not be permitted in SMA mixes.
- 4/ Crushed steel slag shall not be used as binder.
- 5/ When combinations of aggregates are used, the blend percent measurements shall be by volume.”
- 6/ Combining different types of aggregate will not be permitted in SMA Ndesign 80.”

ROCKFILL

Effective: January 1, 2010

Revised: April 1, 2022

Description. This work shall consist of the furnishing and placement of rockfill where unstable and/or unsuitable materials have been removed below the plan bedding grade of proposed cast-in-place and/or precast concrete box culverts. This work shall be done as shown on the plans and as directed by the Engineer.

Materials. Materials shall meet the following requirements of the Standard Specifications:

| <u>Item</u> | <u>Section</u> |
|-----------------|----------------|
| CA 07 and CA 11 | 1004 |
| Rockfill | 1005 |

The gradation of rockfill shall be selected based on the following table:

Material: Crushed Stone, Crushed Gravel, and Crushed Concrete

| Sieve Size | <u>Option 1</u> Percent Passing | <u>Option 2</u> Percent Passing |
|------------------------|------------------------------------|------------------------------------|
| 3 inches (75 mm) | 100 | |
| 2 1/2 inches (63 mm) | 95 ± 5 | 100 |
| 2 inches (50 mm) | 60 ± 15 | 93 ± 7 |
| 1 1/2 inches (37.5 mm) | 15 ± 15 | 55 ± 20 |
| 1 inch (25 mm) | 3 ± 3 | 8 ± 8 |
| 1/2 inch (12.5 mm) | | 3 ± 3 |

Geotechnical fabric for ground stabilization shall be nonwoven and meeting the requirements of Article 1080.02 of the Standard Specifications may be necessary dependent upon subgrade soil conditions. The Engineer shall make the determination if Geotechnical fabric utilization is necessary.

Construction Requirements. Unstable and/or unsuitable soil shall be excavated according to Article 502.11 of the Standard Specifications. Rockfill shall be placed following the excavation of the unstable and/or unsuitable material. The maximum nominal thickness when compacted shall be 24 in. (600 mm). Each lift of aggregate shall be compacted to the satisfaction of the Engineer.

The rockfill shall be capped with material meeting the aggregate gradations of CA 07 or CA 11 according to Article 1004.01. The minimum cap thickness shall be 3 in. (75 mm).

The fabric, if required, shall be installed according to the applicable portions of Section 210 of the Standard Specifications.

Method of Measurement. Rockfill will be measured for payment in cubic yards (cubic meters).

Geotechnical fabric for ground stabilization will be measured for payment according to Article 210.05 of the Standard Specifications.

Basis of Payment. Rockfill will be paid for at the contract unit price per cubic yard (cubic meter) for ROCKFILL.

Geotechnical fabric for ground stabilization will be paid for according to Article 210.06 of the Standard Specifications. When the contract does not contain a pay item for the fabric and this item is required, it will be paid for according to Article 109.04 of the Standard Specifications.

Box culverts, removal and disposal of unstable and unsuitable materials, porous granular bedding material, and the excavation required for bedding will be paid for according to Section 540 of the Standard Specifications.

HOT-MIX ASPHALT – MIXTURE DESIGN VERIFICATION AND PRODUCTION (D1)

Effective: January 1, 2019

Revised: December 1, 2021

Add to Article 1030.05 (d)(3) of the Standard Specifications to read:

“ During mixture design, prepared samples shall be submitted to the District laboratory by the Contractor for verification testing. The required testing, and number and size of prepared samples submitted, shall be according to the following tables.

| High ESAL – Required Samples for Verification Testing | |
|---|---|
| Mixture | Hamburg Wheel and I-FIT Testing ^{1/2/} |
| Binder | total of 3 - 160 mm tall bricks |
| Surface | total of 4 - 160 mm tall bricks |

| Low ESAL – Required Samples for Verification Testing | |
|--|-------------------------------|
| Mixture | I-FIT Testing ^{1/2/} |
| Binder | 1 - 160 mm tall brick |
| Surface | 2 - 160 mm tall bricks |

1/ The compacted gyratory bricks for Hamburg wheel and I-FIT testing shall be 7.5 ± 0.5 percent air voids.

2/ If the Contractor does not possess the equipment to prepare the 160 mm tall brick(s), twice as many 115 mm tall compacted gyratory bricks will be acceptable.

Revise the fourth paragraph of Article 1030.10 of the Standard Specifications to read:

“When a test strip is not required, each HMA mixture shall still be sampled on the first day of production: I-FIT and Hamburg wheel testing for High ESAL; I-FIT testing for Low ESAL. Within two working days after sampling the mixture, the Contractor shall deliver gyratory cylinders to the District laboratory for Department verification testing. The High ESAL mixture test results shall meet the requirements of Articles 1030.05(d)(3) and 1030.05(d)(4). The Low ESAL mixture test results shall meet the requirements of Article 1030.05(d)(4). The required number and size of prepared samples submitted for the Hamburg wheel and I-FIT testing shall be according to the “High ESAL - Required Samples for Verification Testing” table in Article 1030.05(d)(3) above.”

Add the following to the end of Article 1030.10 of the Standard Specifications to read:

“Mixture sampled during first day of production shall include approximately 60 lb (27 kg) of additional material for the Department to conduct Hamburg wheel testing and approximately 80 lb (36 kg) of additional material

for the Department to conduct I-FIT testing. Within two working days after sampling, the Contractor shall deliver prepared samples to the District laboratory for verification testing. The required number and size of prepared samples submitted for the Hamburg wheel and I-FIT testing shall be according to the "High ESAL-Required Samples for Verification Testing" table in Article 1030.05(d)(3) above."

GENERAL ELECTRICAL REQUIREMENTS (D1)

Effective: June 1, 2021

This special provision replaces Articles 801.01 – 801.07, 801.09 – 801-16 of the Standard Specifications.

Definition. Codes, standards, and industry specifications cited for electrical work shall be by definition the latest adopted version thereof, unless indicated otherwise.

Materials by definition shall include electrical equipment, fittings, devices, motors, appliances, fixtures, apparatus, all hardware and appurtenances, and the like, used as part of, or in connection with, electrical installation.

Standards of Installation. Materials shall be installed according to the manufacturer's recommendations, the NEC, OSHA, the NESC, and AASHTO's Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.

All like materials shall be from the same manufacturer. Listed and labeled materials shall be used whenever possible. The listing shall be according to UL or an approved equivalent.

Safety and Protection. Safety and protection requirements shall be as follows.

Safety. Electrical systems shall not be left in an exposed or otherwise hazardous condition. All electrical boxes, cabinets, pole handholes, etc. which contain wiring, either energized or non-energized, shall be closed or shall have covers in place and be locked when possible, during nonworking hours.

Protection. Electrical raceway or duct openings shall be capped or otherwise sealed from the entrance of water and dirt. Wiring shall be protected from mechanical injury.

Equipment Grounding Conductor. All electrical systems, materials, and appurtenances shall be grounded. Good ground continuity throughout the electrical system shall be assured, even though every detail of the requirements is not specified or shown. Electrical circuits shall have a continuous insulated equipment grounding conductor. When metallic conduit is used, it shall be bonded to the equipment grounding conductor, but shall not be used as the equipment grounding conductor.

Detector loop lead-in circuits, circuits under 50 volts, and runs of fiber optic cable will not require an equipment grounding conductor.

Where connections are made to painted surfaces, the paint shall be scraped to fully expose metal at the connection point. After the connection is completed, the paint system shall be repaired to the satisfaction of the Engineer.

Bonding of all boxes and other metallic enclosures throughout the wiring system to the equipment grounding conductor shall be made using a splice and pigtail connection. Mechanical connectors shall have a serrated washer at the contact surface.

All connections to structural steel or fencing shall be made with exothermic welds. Care shall be taken not to weaken load carrying members. Where connections are made to epoxy coated reinforcing steel, the epoxy coating shall be sufficiently removed to facilitate a mechanical connection. The epoxy coating shall be repaired to the satisfaction of

the Engineer. Where connections are made to insulated conductors, the connection shall be wrapped with at least four layers of electrical tape extended 6 in. (150 mm) onto the conductor insulation.

Submittals. At the preconstruction meeting, the Contractor shall submit a written listing of manufacturers for all major electrical and mechanical items. The list of manufacturers shall be binding, except by written request from the Contractor and approval by the Engineer. The request shall include acceptable reasons and documentation for the change.

Within 30 calendar days after contract execution, the Contractor shall submit, for approval, through the Traffic Operations Construction Submittals Application (TOCS) system the manufacturer's product data (for standard products and components) and detailed shop drawings (for fabricated items). Submittals for the materials for each individual pay item shall be complete in every respect. Submittals which include multiple pay items shall have all submittal material for each item or group of items covered by a particular specification, grouped together and the applicable pay item identified. Various submittals shall, when taken together, form a complete coordinated package. A partial submittal will be returned without review unless prior written permission is obtained from the Engineer.

Each PDF document must be a vector format PDF from the originating supplier or program and not scanned images.

The submittal must clearly identify the specific model number or catalog number of the item being proposed.

For further information and requirements regarding the TOCS system, the Contractor should reference the *TOCS Contractors User Guide*.

The submittal shall be properly identified by route, section, county, and contract number.

The Contractor shall have reviewed the submittal material and affixed his/her stamp of approval, with date and signature, for each individual item.

Illegible print, incompleteness, inaccuracy, or lack of coordination will be grounds for rejection.

Items from multiple disciplines shall not be combined on a single submittal and transmittal. Items for lighting, signals, surveillance and CCTV must be in separate submittals since they may be reviewed by various personnel in various locations.

The Department may provide a list of pay items broken out by discipline upon request for a particular contract.

The Engineer will review the submittals for conformance with the design concept of the project according to Article 105.04 and the following. The Engineer will stamp the drawings indicating their status as "Approved", "Approved as Noted", "Disapproved", or "Information Only". Since the Engineer's review is for conformance with the design concept only, it shall be the Contractor's responsibility to coordinate the various items into a working system as specified. The Contractor shall not be relieved from responsibility for errors or omissions in the shop, working, or layout drawings by the Engineer's approval thereof. The Contractor shall still be in full compliance with contract and specification requirements.

All submitted items reviewed and marked "Disapproved" or "Approved as Noted" shall be resubmitted by the Contractor in their entirety, unless otherwise indicated within the submittal comments.

Work shall not begin until the Engineer has approved the submittal. Material installed prior to approval by the Engineer, will be subject to removal and replacement at no additional cost to the Department.

Certifications. When certifications are specified and are available prior to material manufacture, the certification shall be included in the submittal information. When specified and only available after manufacture, the submittal shall include a statement of intent to furnish certification. All certificates shall be complete with all appropriate test dates and data.

Authorized Project Delay. See Article 801.08.

Maintenance Transfer and Preconstruction Inspection:

General. Before performing any excavation, removal, or installation work (electrical or otherwise) at the site, the Contractor shall request a maintenance transfer and preconstruction site inspection, to be held in the presence of the Engineer and a representative of the party or parties responsible for maintenance of any lighting and/or traffic control systems which may be affected by the work. The request for the maintenance transfer and preconstruction inspection shall be made no less than fourteen (14) calendar days prior to the desired inspection date. The maintenance transfer and preconstruction inspection shall:

Establish the procedures for formal transfer of maintenance responsibility required for the construction period.

Establish the approximate location and operating condition of lighting and/or traffic control systems which may be affected by the work

Marking of Existing Cable Systems. The party responsible for maintenance of any existing lighting and/or traffic control systems at the project site will, at the Contractor's request, mark and/or stake, once per location, all underground cable routes owned or maintained by the State. A project may involve multiple "locations" where separated electrical systems are involved (i.e. different controllers). The markings shall be taken to have a horizontal tolerance of at least 1 foot (304.8 mm) to either side. The request for the cable locations and marking shall be made at the same time the request for the maintenance transfer and preconstruction inspection is made. The Contractor shall exercise extreme caution where existing buried cable runs are involved. The markings of existing systems are made strictly for assistance to the Contractor and this does not relieve the Contractor of responsibility for the repair or replacement of any cable run damaged in the course of his work, as specified elsewhere herein. Note that the contractor shall be entitled to only one request for location marking of existing systems and that multiple requests may only be honored at the contractor's expense. No locates will be made after maintenance is transferred, unless it is at the contractor's expense.

Condition of Existing Systems. The Contractor shall conduct an inventory of all existing electrical system equipment within the project limits, which may be affected by the work, making note of any parts which are found broken or missing, defective or malfunctioning. Megger and load readings shall be taken for all existing circuits which will remain in place or be modified. If a circuit is to be taken out in its entirety, then readings do not have to be taken. The inventory and test data shall be reviewed with and approved by the Engineer and a record of the inventory shall be submitted to the Engineer for the record. Without such a record, all systems transferred to the Contractor for maintenance during construction shall be returned at the end of construction in complete, fully operating condition."

Maintenance and Responsibility During Construction.

Lighting Operation and Maintenance Responsibility. The scope of work shall include the assumption of responsibility for the continuing operation and maintenance of the existing, proposed, temporary, sign and navigation lighting, or other lighting systems and all appurtenances affected by the work as specified elsewhere herein. Maintenance of lighting systems is specified elsewhere and will be paid for separately

The proposed lighting system must be operational prior to opening the roadway to traffic unless temporary lighting exists which is designed and installed to properly illuminate the roadway.

Energy and Demand Charges. The payment of basic energy and demand charges by the electric utility for existing lighting which remains in service will continue as a responsibility of the Owner, unless otherwise indicated. Unless otherwise indicated or required by the Engineer duplicate lighting systems (such as temporary lighting and proposed new lighting) shall not be operated simultaneously at the Owner's expense and lighting systems shall not be kept in operation during long daytime periods at the Owner's expense. Upon written authorization from the Engineer to place a proposed new lighting system in service, whether the system has passed final acceptance or not, (such as to allow temporary lighting to be removed), the Owner will accept responsibility for energy and demand charges for such lighting, effective the date of authorization. All other energy and demand payments to the utility shall be the responsibility of the Contractor until final acceptance.

Damage to Electrical Systems. Should damage occur to any existing electrical systems through the Contractor's operations, the Engineer will designate the repairs as emergency or non-emergency in nature.

Emergency repairs shall be made by the Contractor, or as determined by the Engineer, the Department, or its agent. Non-emergency repairs shall be performed by the Contractor within six working days following discovery or notification. All repairs shall be performed in an expeditious manner to assure all electrical systems are operational as soon as possible. The repairs shall be performed at no additional cost to the Department.

Lighting. An outage will be considered an emergency when three or more lights on a circuit or three successive lights are not operational. Knocked down materials, which result in a danger to the motoring public, will be considered an emergency repair.

Temporary aerial multi-conductor cable, with grounded messenger cable, will be permitted if it does not interfere with traffic or other operations, and if the Engineer determines it does not require unacceptable modification to existing installations.

Marking Proposed Locations for Highway Lighting System. The Contractor shall mark or stake the proposed locations of all poles, cabinets, junction boxes, pull boxes, handholes, cable routes, pavement crossings, and other items pertinent to the work. A proposed location inspection by the Engineer shall be requested prior to any excavation, construction, or installation work after all proposed installation locations are marked. Any work installed without location approval is subject to corrective action at no additional cost to the Department.

Inspection of electrical work. Inspection of electrical work shall be according to Article 105.12 and the following.

Before any splice, tap, or electrical connection is covered in handholes, junction boxes, light poles, or other enclosures, the Contractor shall notify and make available such wiring for the Engineer's inspection.

Testing. Before final inspection, the electrical work shall be tested. Tests may be made progressively as parts of the work are completed or may be made when the work is complete. Tests shall be made in the presence of the Engineer. Items which fail to test satisfactorily shall be repaired or replaced. Tests shall include checks of control operation, system voltages, cable insulation, and ground resistance and continuity.

The forms for recording test readings will be available from the Engineer in electronic format. The Contractor shall provide the Engineer with a written report of all test data including the following:

- Voltage tests
- Amperage tests
- Insulation resistance tests
- Continuity tests
- Detector loop tests

Lighting systems. The following tests shall be made.

- (1) Voltage Measurements. Voltages in the cabinet from phase to phase and phase to neutral, at no load and at full load, shall be measured and recorded. Voltage readings at the last termination of each circuit shall be measured and recorded.
- (2) Insulation Resistance. Insulation resistance to ground of each circuit at the cabinet shall be measured and recorded with all loads disconnected. Prior to performance of the insulation resistance test, the Contractor shall remove all fuses within all light pole bases on a circuit to segregate the luminaire loads.

On tests of new cable runs, the readings shall exceed 50 megohms for phase and neutral conductors with a connected load over 20A and shall exceed 100 megohms for conductors with a connected load of 20A or less.

On tests of cable runs which include cables which were existing in service prior to this contract, the resistance readings shall be the same or better than the readings recorded at the maintenance transfer at the beginning of the contract. Measurements shall be taken with a megohm meter approved by the Engineer.

- (3) Loads. The current of each circuit, phase main, and neutral shall be measured and recorded. The Engineer may direct reasonable circuit rearrangement. The current readings shall be within ten percent of the connected load based on material ratings.
- (4) Ground Continuity. Resistance of the system ground as taken from the farthest extension of each circuit run from the controller (i.e., check of equipment ground continuity for each circuit) shall be measured and recorded. Readings shall not exceed 2.0 ohms, regardless of the length of the circuit.
- (5) Resistance of Grounding Electrodes. Resistance to ground of all grounding electrodes shall be measured and recorded. Measurements shall be made with a ground tester during dry soil conditions as approved by the Engineer. Resistance to ground shall not exceed 10 ohms.

ITS. The following test shall be made in addition to the lighting system test above.

Detector Loops. Before and after permanently securing the loop in the pavement, the resistance, inductance, resistance to ground, and quality factor for each loop and lead-in circuit shall be tested. The loop and lead-in circuit shall have an inductance between 20 and 2500 microhenries. The resistance to ground shall be a minimum of 50 megohms under any conditions of weather or moisture. The quality factor (Q) shall be 5 or greater.

Fiber Optic Systems. Fiber optic testing shall be performed as required in the fiber optic cable special provision and the fiber optic splice special provision.

All test results shall be furnished to the Engineer seven working days before the date the inspection is scheduled.

Contract Guarantee. The Contractor shall provide a written guarantee for all electrical work provided under the contract for a period of six months after the date of acceptance with the following warranties and guarantees.

- (a) The manufacturer's standard written warranty for each piece of electrical material or apparatus furnished under the contract. The warranty for light emitting diode (LED) modules, including the maintained minimum luminance, shall cover a minimum of 120 months from the date of delivery.

- (b) The Contractor's written guarantee that, for a period of six months after the date of final acceptance of the work, all necessary repairs to or replacement of said warranted material or apparatus for reasons not proven to have been caused by negligence on the part of the user or acts of a third party shall be made by the Contractor at no additional cost to the Department.
- (c) The Contractor's written guarantee for satisfactory operation of all electrical systems furnished and constructed under the contract for a period of six months after final acceptance of the work.

The warranty for an uninterruptable power supply (UPS) shall cover a minimum of two years from date the equipment is placed in operation; however, the batteries of the UPS shall be warranted for full replacement for a minimum of five years.

Record Drawings. Alterations and additions to the electrical installation made during the execution of the work shall be made on the PDF copy of the as-let documents using a PDF editor. Hand drawn notations or markups and scanned plans are not acceptable. These drawings shall be updated daily and shall be available for inspection by the Engineer during the work. The record drawings shall include the following:

- Cover Sheet
- The Electrical Maintenance Contract Management System (EMCMS) location designation, i.e. "L" number
- Summary of Quantities, electrical items only
- Legends, Schedules, and Notes
- Plan sheets
- Pertinent details
- Single Line Diagrams
- Other useful information useful to locate and maintain the systems.

Any modifications to the details shall be indicated. Final quantities used shall be indicated on the Summary of Quantities. Foundation depths used shall also be listed.

As part of the record drawings, the Contractor shall inventory all materials, new or existing, on the project and record information on inventory sheets provided by the Engineer.

The inventory shall include:

- Location of Equipment, including rack, chassis, slot as applicable.
- Designation of equipment
- Equipment manufacturer
- Equipment model number
- Equipment version number
- Equipment configuration
 - Addressing, IP or other
 - Settings, hardware or programmed
- Equipment serial number

The following electronic inventory forms are available from the Engineer:

- Lighting Controller Inventory
- Lighting Inventory
- Light Tower Inspection Checklist
- ITS Location Inventory

The information shall be entered in the forms; handwritten entries will not be acceptable; except for signatures. Electronic file shall also be included in the documentation.

When the work is complete, and seven days before the request for a final inspection, the set of contract drawings, stamped "**RECORD DRAWINGS**", shall be submitted to the Engineer for review and approval and shall be stamped with the date and the signature of the Contractor's supervising Engineer or Electrician. The record drawings shall be submitted in PDF format through TOCS, on CD-ROM, as well as hard copies for review and approval.

In addition to the record drawings, PDF copies of the final catalog cuts which have been Approved and Approved as Noted with applicable follow-up shall be submitted along with the record drawings. The PDF files shall clearly indicate either by filename or PDF table of contents the respective pay item number. Specific part or model numbers of items which have been selected shall be clearly visible. Hard copies of the catalog are not required with this submittal.

The Contractor shall provide three sets of electronically produced drawings in a moistureproof pouch to be kept on the inside door of the controller cabinet or other location approved by the Engineer. These drawings shall show the final as-built circuit orientation(s) of the project in the form of a single-line diagram with all luminaires numbered and clearly identified for each circuit.

Final documentation shall be submitted as a complete submittal package, (i.e., record drawings, test results, inventory, etc.) shall be submitted at the same time. Partial piecemeal submittals will be rejected without review.

A total of three hard copies and two CD-ROMs of the final documentation shall be submitted. The identical material shall also be submitted through the TOCS system utilizing the following final documentation pay item numbers:

| Pay Code | Description | Discipline |
|-----------------|----------------------------------|-------------------|
| FDLRD000 | Record Drawings - Lighting | Lighting |
| FDSRD000 | Record Drawings - Surveillance | Surveillance |
| FDTRD000 | Record Drawings - Traffic Signal | Traffic Signal |
| FDIRD000 | Record Drawings - ITS | ITS |
| FDLCC000 | Catalog Cuts - Lighting | Lighting |
| FDSCC000 | Catalog Cuts – Surveillance | Surveillance |
| FDTCC000 | Catalog Cuts – Traffic Signal | Traffic Signal |
| FDICC000 | Catalog Cuts - ITS | ITS |
| FDLWL000 | Warranty - Lighting | Lighting |
| FDSWL000 | Warranty - Surveillance | Surveillance |
| FDTWL000 | Warranty - Traffic Signal | Traffic Signal |
| FDIWL000 | Warranty - ITS | ITS |
| FDLTR000 | Test Results - Lighting | Lighting |
| FDSTR000 | Test Results - Surveillance | Surveillance |
| FDTTR000 | Test Results - Traffic Signal | Traffic Signal |
| FDITR000 | Test Results - ITS | ITS |
| FDLINV00 | Inventory - Lighting | Lighting |
| FDSINV00 | Inventory - Surveillance | Surveillance |
| FDTINV00 | Inventory - Traffic Signal | Traffic Signal |
| FDIINV00 | Inventory - ITS | ITS |
| FDLGPS00 | GPS - Lighting | Lighting |

| Pay Code | Description | Discipline |
|-----------------|----------------------|-------------------|
| FDSGPS00 | GPS - Surveillance | Surveillance |
| FDTGPS00 | GPS - Traffic Signal | Traffic Signal |
| FDIGPS00 | GPS - ITS | ITS |

Record Drawings shall include Marked up plans, controller info, service info, equipment settings, manuals, and wiring diagrams for each discipline.

Test results shall be all electrical test results, fiber-optic OTDR, and fiber-optic power meter as applicable for each discipline.

GPS Documentation. In addition to the specified record drawings, the Contactor shall record GPS coordinates of the following electrical components being installed, modified or being affected in other ways by this contract:

- All light poles and light towers.
- Handholes and vaults.
- Junction boxes.
- Conduit roadway crossings.
- Controllers.
- Control buildings.
- Structures with electrical connections, i.e. DMS, lighted signs.
- Electric service locations.
- CCTV camera installations.
- Roadway surveillance installations.
- Fiber-optic splice locations.
- Fiber-optic cables. Coordinates shall be recorded along each fiber-optic cable route every 200 feet.
- All fiber-optic slack locations shall be identified with quantity of slack cable included. When sequential cable markings are available, those markings shall be documented as cable marking into enclosure and marking out of enclosure.

Datum to be used shall be North American 1983.

Data shall be provided electronically. The electronic format shall be compatible with MS Excel. Latitude and longitude shall be in decimal degrees with a minimum of 6 decimal places. Each coordinate shall have the following information:

1. District
2. Description of item
3. Designation
4. Use
5. Approximate station
6. Contract Number
7. Date
8. Owner
9. Latitude
10. Longitude
11. Comments

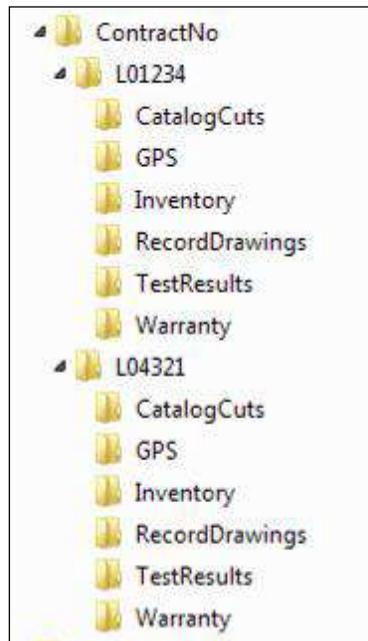
A spreadsheet template will be available from the Engineer for use by the Contractor.

Accuracy. Data collected is to be mapping grade. A handheld mapping grade GPS device shall be used for the data collection. The receiver shall support differential correction and data shall have minimum 5 meter accuracy after post processing.

GPS receivers integrated into cellular communication devices, recreational and automotive GPS devices are not acceptable.

The GPS shall be the product of an established major GPS manufacturer having been in the business for a minimum of 6 years.”

The documents on the CD shall be organized by the Electrical Maintenance Contract Management System (EMCMS) location designation. If multiple EMCMS locations are within the contract, separate folders shall be utilized for each location as follows:



Extraneous information not pertaining to the specific EMCMS location shall not be included in that particular folder and sub-folder.

The inspection will not be made until after the delivery of acceptable record drawings, specified certifications, and the required guarantees.

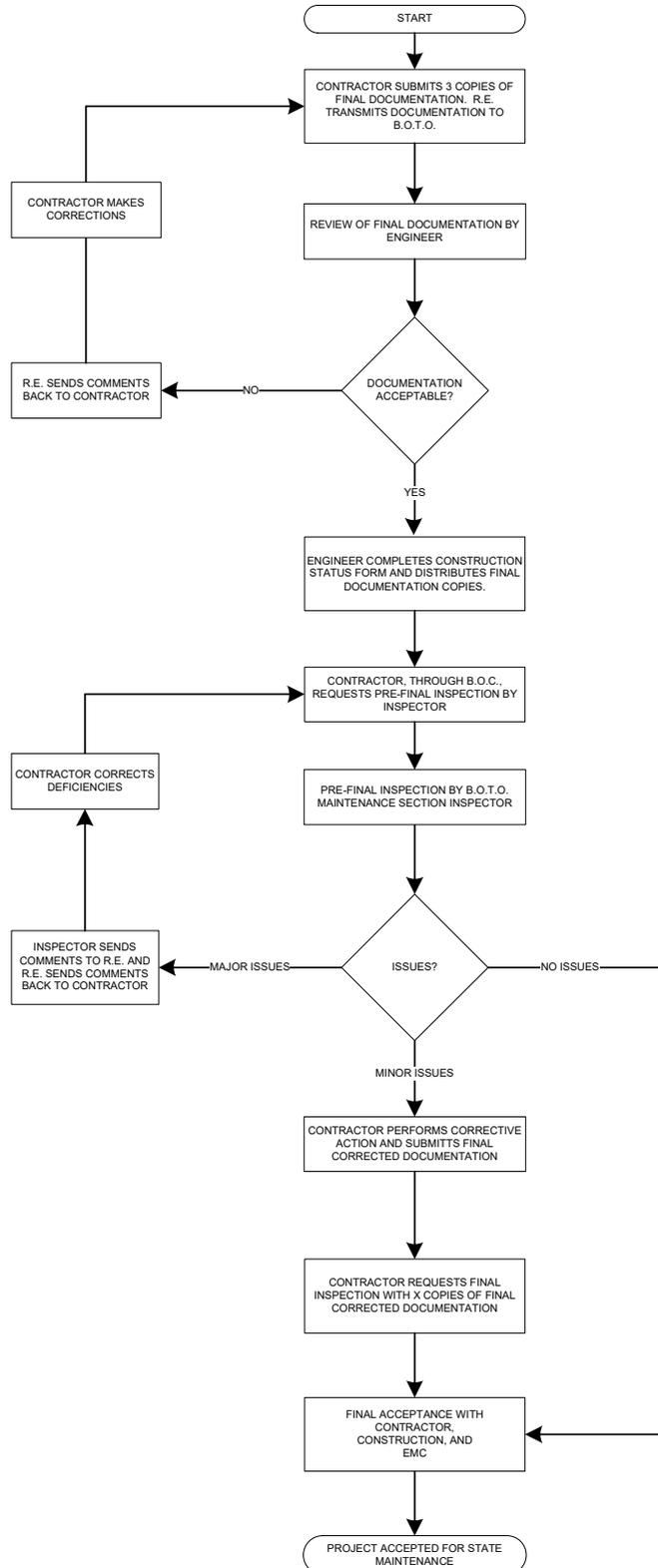
The Final Acceptance Documentation Checklist shall be completed and is contained elsewhere herein.

All CDs shall be labeled as illustrated in the CD Label Template contained herein.

Acceptance. Acceptance of electrical work will be given at the time when the Department assumes the responsibility to protect and maintain the work according to Article 107.30 or at the time of final inspection.

When the electrical work is complete, tested, and fully operational, the Contractor shall schedule an inspection for acceptance with the Engineer no less than seven working days prior to the desired inspection date. The Contractor shall furnish the necessary labor and equipment to make the inspection.

A written record of the test readings taken by the Contractor according to Article 801.13 shall be furnished to the Engineer seven working days before the date the inspection is scheduled. Inspection will not be made until after the delivery of acceptable record drawings, specified certifications, and the required guarantees.



Final Acceptance Documentation Checklist

| LOCATION | |
|---------------------------|---------------------------------|
| Route | Common Name |
| Limits | Section |
| Contract # | County |
| Controller Designation(s) | EMC Database Location Number(s) |

| ITEM | Contractor (Verify) | Resident Engineer (Verify) |
|--|--|--|
| Record Drawings -Three hardcopies (11" x 17") -Scanned to two CD-ROMs | <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> |
| Field Inspection Tests -Voltage -Amperage -Cable Insulation Resistance -Continuity -Controller Ground Rod Resistance (Three Hardcopies & scanned to two CD's) | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| GPS Coordinates -Excel file (Check Special Provisions, Excel file scanned to two CD's) | <input type="checkbox"/> | <input type="checkbox"/> |
| Job Warranty Letter (Three Hardcopies & scanned to two CD's) | <input type="checkbox"/> | <input type="checkbox"/> |
| Catalog Cut Submittals -Approved & Approved as Noted (Scanned to two CD's) | <input type="checkbox"/> | <input type="checkbox"/> |
| Lighting Inventory Form (Three Hardcopies & scanned to two CD's) | <input type="checkbox"/> | <input type="checkbox"/> |
| Lighting Controller Inventory Form (Three Hardcopies & scanned to two CD's) | <input type="checkbox"/> | <input type="checkbox"/> |
| Light Tower Inspection Form (If applicable, Three Hardcopies & scanned to two CD's) | <input type="checkbox"/> | <input type="checkbox"/> |

Three Hardcopies & scanned to two CDs shall be submitted for all items above. The CD ROM shall be labeled as shown in the example contained herein.

General Notes:

Record Drawings—The record drawings should contain contract cover sheet, summary of quantities showing all lighting pay item sheets, proposed lighting plans and lighting detail sheets. Submit hardcopies shall be 11” x 17” size. Temporary lighting plans and removal lighting plans should not be part of the set.

Field Inspection Tests—Testing should be done for proposed cables. Testing shall be per standard specifications. Forms shall be neatly filled out.

GPS Coordinates—Check Special Provisions “General Electrical Requirements”. Submit electronic “EXCEL” file.

Job Warranty Letter—See Standard Specifications.

Cutsheet Submittal—See Special Provisions “General Electrical Requirements”. Scan Approved and Approved as Noted cutsheets.

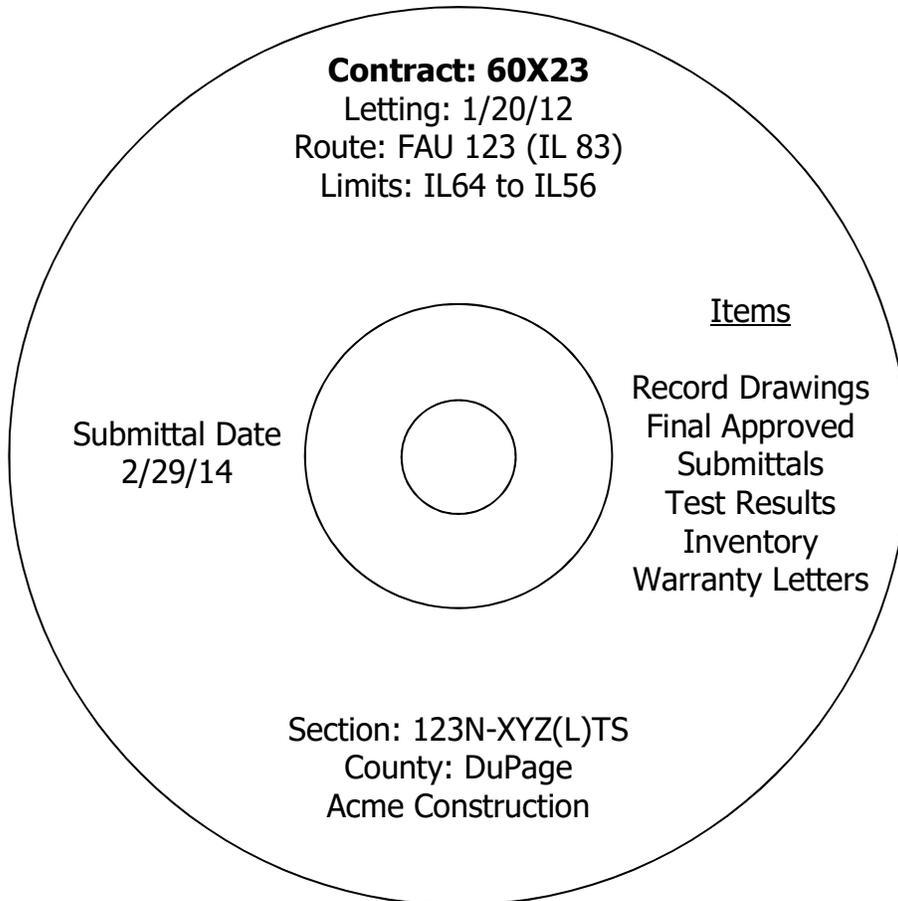
Lighting Inventory Form—Inventory form should include only proposed light poles, proposed light towers, proposed combination (traffic/light pole) lighting and proposed underpass luminaires.

Lighting Controller Inventory Form—Form should be filled out for only proposed lighting controllers.

Light Tower Safety Inspection Form—Form should be filled out for each proposed light tower.

CD LABEL FORMAT TEMPLATE.

Label must be printed; hand written labels are unacceptable and will be rejected.



LUMINAIRE, LED, HORIZONTAL MOUNT, LOW WATTAGE

Description. This work consists of furnishing and installing LED luminaire as specified herein. The following shall be in addition to applicable requirements of Section 821 of the Standard Specifications.

General. The luminaire, including the housing, driver, and optical assembly, shall be assembled in the U.S.A. The luminaire shall both be assembled by and manufactured by the same manufacturer. The luminaire shall be in compliance with ANSI C136.37. LED source(s) and driver(s) shall be RoHS compliant. LED Luminaire classification shall be as follows: All fixtures shall be model ERL1-0-07-E3-30-A-Gray-AGILR by General Electric. CONTRACTOR shall confirm exact fixture model number with the Village of Plainfield prior to ordering. Luminaires shall be 3,000 K color temperature and shall include fixture-mounted photocell.

Housing.

Material. The luminaire shall be a single device not requiring on-site assembly for installation. The power supply for the luminaire shall be integral to the unit.

Finish. Painted or finished luminaire surfaces exposed to the environment shall exceed a rating of six, according to ASTM D1654, after 1000 hours of ASTM B117 testing. The coating shall exhibit no greater than 30% reduction of gloss, according to ASTM D523, after 500 hours of ASTM G154 Cycle 6 QUV[®] accelerated weathering testing.

Unless otherwise indicated in the plans, the luminaire color shall be grey.

The housing shall be designed to prevent the accumulation of water, ice, dirt, and debris, and to ensure maximum heat dissipation. The effective projected area of the luminaire shall not exceed 1.6 sq. ft. The total weight of the luminaire(s) and accessories shall not exceed 75 pounds.

A passive cooling method with no moving, rotating parts, or liquids shall be employed for heat management. The luminaire shall include a fully prewired, 7-pin, twist-lock, ANSI C136.41-compliant receptacle. Unused pins shall be connected as directed by the manufacturer and as approved by the Engineer. A shorting cap shall be provided with the luminaire.

Vibration Characteristics. All luminaires shall be vibration tested and pass ANSI C136.31 requirements. Luminaires shall be rated for "3G" peak acceleration. Vibration testing shall be run using the same luminaire in all three axes.

Labels and Decals. All luminaires shall have labels in accordance with ANSI C136.15 for an external label, and ANSI C136.22 for an internal label.

The luminaire shall be listed for wet locations by a U.S. Occupational Safety Health administration (OSHA) Nationally Recognized Testing Laboratory (NRTL) and shall be in compliance with UL 8750 and UL 1598. It shall be identified as such by the NRTL tag/sticker on the inside of the luminaire.

Hardware. All fasteners shall be stainless steel. Captive screws are required on any components that require maintenance after installation.

Internal Luminaire Electrical Connections. Quick connect/disconnect plugs shall be supplied between the discrete electrical components within the luminaire such as the driver, surge protection device and optical assembly for easy removal. The keyed quick connect/disconnect plugs shall be operable without the use of tools while wearing insulated gloves.

Provisions for any future house-side external or internal shielding should be indicated along with means of attachment.

Circuiting shall be designed to minimize the impact of individual LED failures on the operation of the other LED's.

Driver.

The driver shall be integral to the luminaire.

The driver shall tolerate indefinite open and short circuit output conditions without damage.

Ingress Protection. The driver Ingress Protection (IP) rating as defined in the ANSI/IEC 60529 standard shall have an IP66 rating.

Input Voltage. The driver shall be suitable for operation over a range of 120 to 277 volts

Operating Temperature. The driver shall have an operating ambient temperature range of -40°C to 50°C.

Driver Life. The driver shall provide a lifetime of 100,000 hours at 25° C ambient.

Safety/UL. The driver shall be UL Listed under standard UL 1012.

Power Factor. Drivers shall maintain a power factor of 0.9 or higher and total harmonic distortion of less than 20%.

Driver Efficiency. Efficiency of the driver is defined by the ratio of output power and input power. The driver shall deliver a maximum efficiency of >90% at maximum load and an efficiency of >85% for the driver operating at 50% power.

Electrical Interference. The driver shall meet the Electromagnetic Compatibility (EMC) requirements per FCC Title 47 Code of Federal Regulations (CFR) Part 15 Class A.

Thermal Fold Back. The driver shall reduce the current to the LED module if the driver is overheating due to abnormal conditions.

Dimming. The driver shall have dimming capability. The driver shall accept a dimming control signal that is compliant with the 0-10V protocol in accordance with ANSI C136.37.

Leakage current. The driver shall comply with safety standards in accordance with IEC 61347-1.

Surge Protection Device shall be UL 1449 labeled as Type 4 and be an integral part of the luminaire. The SPD shall be compliant with ANSI C136.2-2014 (Draft).

LED Optical Assembly.

The LED optical assembly shall be a scalable array consisting of discrete LED panels or modules. Each panel or module shall have a minimum IP rating of 66.

The optical assembly shall utilize high brightness, long life, minimum 70 CRI, 3,000K color temperature (+/-300K) LEDs binned in accordance with ANSI C78.377. Lenses shall be UV-stabilized acrylic or glass.

Lumen depreciation at 50,000 hours of operation shall not exceed 15% of initial lumen output at the specified LED drive current and an ambient temperature of 25° C.

The luminaire may or may not have a glass lens over the LED modules. If a glass lens is used, it must be a flat lens. Material other than glass will not be acceptable. If a glass lens is not used, the LED modules may not protrude lower than the luminaire housing.

The assembly shall have individual serial numbers or other means for manufacturer tracking.

Photometric Performance.

Luminaires shall be tested according to IESNA LM-79. This testing shall be performed by a test laboratory holding accreditation from the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) for the IESNA LM-79 test procedure.

Data reports as a minimum shall yield an isofootcandle chart, with max candela point and half candela trace indicated, maximum plane and maximum cone plots of candela, a candlepower table (house and street side), a coefficient of

utilization chart, a luminous flux distribution table, spectral distribution plots, chromaticity plots, and other standard report outputs of the above mentioned tests.

Lumen maintenance shall be measured for the LEDs according to LM-80 or for the luminaires according to LM-84. The LM-80 report shall be based on a minimum of 6,000 hours, yet 10,000-hour reports shall be provided for luminaires where those tests have been completed.

The luminaire shall have a BUG rating of Back Light B2 or less, Up Light rating of U0, and a Glare rating of G2 or less, unless otherwise indicated in the luminaire performance table.

Photometric Calculations.

Calculations. Submitted report shall include a luminaire classification system graph with both the recorded lumen value and percent lumens by zone along with the BUG rating according to IESNA TM-15.

**IDOT DISTRICT 1 LUMINAIRE PERFORMANCE TABLE
 ROADWAY LIGHTING: One Row, Near Side, No Median**

GIVEN CONDITIONS

| | | | |
|------------------|-------------------------------------|----------------|-----|
| Roadway Data | Pavement Width | 33 | Ft |
| | Number of Lanes | 2 | |
| | Lane Width | 16.5 | Ft |
| | Median Width | N/A | Ft |
| | IES Surface Classification | R3 | |
| | Q-Zero Value | 0.07 | |
| Mounting Data | Mounting Height | 25 | Ft |
| | Mast Arm Length | 8 | Ft |
| | Pole Set-Back from Edge of Pavement | 3 | Ft |
| Luminaire Data | Source | LED | |
| | Color Temperature | 3000 | °K |
| | Lumens | 6,800 | Min |
| | Pay Item Lumen Designation | E | |
| | BUG Rating | B2-U0-G2 | |
| | IES Vertical Distribution | Full Cutoff | |
| | IES Control of Distribution | None | |
| | IES Lateral Distribution | Type II Medium | |
| | Total Light Loss Factor | 0.85 | |
| Pole Layout Data | Spacing | 105 | Ft |
| | Configuration | Opposite | |
| | Luminaire Overhang over E.O.P. | 5 | Ft |

NOTE: Variations from the above specified I.E.S. distribution pattern may be requested, and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

| | | | |
|-----------|--|-------------|-------------------|
| Roadway | Average Luminance, L_{AVE} (Max) | <u>2.0</u> | Cd/m ² |
| Luminance | Average Luminance, L_{AVE} (Min) | <u>0.3</u> | Cd/m ² |
| | Uniformity Ratio, L_{AVE}/L_{MIN} | <u>6.0</u> | Max |
| | Uniformity Ratio, L_{MAX}/L_{MIN} | <u>10.0</u> | Max |
| | Veiling Luminance Ratio, L_V/L_{AVE} | <u>0.4</u> | Max |

Installation.

Each luminaire shall be installed according to the luminaire manufacturer’s recommendations.

Luminaires which are pole-mounted shall be mounted on site such that poles and arms are not left unloaded. Pole-mounted luminaires shall be leveled/adjusted after poles are set and vertically aligned before being energized. When mounted on a tenon, care shall be exercised to assure maximum insertion of the mounting tenon. Each luminaire shall be checked to assure compatibility with the project power system. When the night-time check of the lighting system by the Engineer indicates that any luminaires are mis-aligned, the mis-aligned luminaires shall be corrected at no additional cost.

No luminaire shall be installed before it is approved. Where independent testing is required, full approval will not be given until complete test results, demonstrating compliance with the specifications, have been reviewed and accepted by the Engineer.

Pole wiring shall be provided with the luminaire. Pole wire shall run from handhole to luminaire.

Pole wire shall be sized No. 10, rated 600 V, RHW/USE-2, and have copper conductors, stranded in conformance with ASTM B 8. Pole wire shall be insulated with cross-linked polyethylene (XLP) insulation. Wire shall be trained within the pole so as to avoid abrasion or damage to the insulation.

Pole wire shall be extended through the pole, pole grommet, luminaire ring, and any associated arm and tenon. The pole wire shall be terminated in a manner that avoids sharp kinks, pinching, pressure on the insulation, or any other arrangement prone to damaging insulation value and producing poor megger test results. Wires shall be trained away from heat sources within the luminaire. Wires shall be terminated so all strands are extended to the full depth of the terminal lug with the insulation removed far enough so it abuts against the shoulder of the lug but is not compressed as the lug is tightened.

Included with the pole wiring shall be fusing located in the handhole. Fusing shall be according to Article 1065.01.

Each luminaire and optical assembly shall be free of all dirt, smudges, etc. Should the optical assembly require cleaning, a luminaire manufacturer approved cleaning procedure shall be used.

Horizontal mount luminaires shall be installed in a level, horizontal plane, with adjustments as needed to ensure the optics are set perpendicular to the traveled roadway.

When the pole is bridge mounted, a minimum size stainless steel 1/4-20NC set screw shall be provided to secure the luminaire to the mast arm tenon. A hole shall be drilled and tapped through the tenon and luminaire mounting bracket and then fitted with the screw.

Luminaire shall be equipped with an integral modular photocell with quick connect, disconnect, and photocell replacement mounting hardware.

Warranty.

The entire luminaire and all its component parts shall be covered by a 5-year warranty. Failure is when one or more of the following occur:

- 1) Negligible light output from more than 10 percent of the discrete LEDs.
- 2) Significant moisture that deteriorates performance of the luminaire.
- 3) Driver that continues to operate at a reduced output due to overheating.

Warranty period shall begin on the date of project final acceptance. A copy of the acceptance letter shall be sent to the luminaire manufacturer and luminaire manufacturer's representative by the Contractor upon final acceptance. The replacement luminaire shall be of the same manufacturer, model, and photometric distribution as the original.

Method of Measurement and Basis of Payment. The cost to furnish and install this item will be paid for at the contract unit price per each for LUMINAIRE, LED, HORIZONTAL MOUNT, LOW WATTAGE.

ELECTRICAL CONNECTION TO EXISTING LIGHTING SYSTEM

Description. Contractor shall provide electrical connection to existing lighting system in the locations shown on the drawings. The connection shall consist of all necessary appurtenances to connect the new lighting circuits into the existing lighting circuits at an existing pedestal or light pole in the locations shown on the drawings.

General. Electrical connection to the existing lighting system shall consist of, but not limited to: unit duct routing into the pedestal or light pole as noted on the drawings with the following accessories: cable splices within the pedestal or light pole handhole to existing lighting circuit conductors, additional wiring matching existing wire (if needed), and hardware as required to complete installation.

Method of Measurement and Basis of Payment. The cost to furnish and install this item will be paid for at the contract unit price per each for ELECTRICAL CONNECTION TO EXISTING LIGHTING SYSTEM as detailed in the plans.

UNIT DUCT

Effective: January 1, 2012

Revise the first paragraph of Article 810.04 to read:

“The unit duct shall be installed at a minimum depth of 30-inches (760 mm) unless otherwise directed by the Engineer.”

Revise Article 1088.01(c) to read:

“(c) Coilable Nonmetallic Conduit.

General:

The duct shall be a plastic duct which is intended for underground use and which can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties of performance. The duct shall be a plastic duct which is intended for underground use and can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties of performance.

The duct shall be made of high density polyethylene which shall meet the requirements of ASTM D 2447, for schedule 40. The duct shall be composed of black high density polyethylene meeting the requirements of ASTM D 3350, Class C, Grade P33. The wall thickness shall be in accordance with Table 2 for ASTM D 2447.

The duct shall be UL Listed per 651-B for continuous length HDPE coiled conduit. The duct shall also comply with NEC Article 354.100 and 354.120.

Submittal information shall demonstrate compliance with the details of these requirements.

Dimensions: Duct dimensions shall conform to the standards listed in ASTM D2447. Submittal information shall demonstrate compliance with these requirements.

| Nominal Size | | Nominal I.D. | | Nominal O.D. | | Minimum Wall | |
|--------------|------|--------------|-------|--------------|-------|--------------|--------------|
| mm | in | mm | in | mm | in | mm | in |
| 31.75 | 1.25 | 35.05 | 1.380 | 42.16 | 1.660 | 3.556 +0.51 | 0.140 +0.020 |
| 38.1 | 1.50 | 40.89 | 1.610 | 48.26 | 1.900 | 3.683 +0.51 | 0.145 +0.020 |

| Nominal Size | | Pulled Tensile | |
|--------------|------|----------------|-----|
| mm | in | N | lbs |
| 31.75 | 1.25 | 3322 | 747 |
| 38.1 | 1.50 | 3972 | 893 |

Marking: As specified in NEMA Standard Publication No. TC-7, the duct shall be clearly and durably marked at least every 3.05 meters (10 feet) with the material designation (HDPE for high density polyethylene), nominal size of the duct and the name and/or trademark of the manufacturer.

Performance Tests: Polyethylene Duct testing procedures and test results shall meet the requirements of UL 651. Certified copies of the test report shall be submitted to the Engineer prior to the installation of the duct. Duct crush test results shall meet or exceed the following requirements:

| Duct Diameter | | Min. force required to deform sample 50% | |
|---------------|------|--|------|
| mm | in | N | lbs |
| 35 | 1.25 | 4937 | 1110 |
| 41 | 1.5 | 4559 | 1025 |

WIRE AND CABLE

Effective: January 1, 2012

Add the following to the first paragraph of Article 1066.02(a):

“The cable shall be rated at a minimum of 90°C dry and 75°C wet and shall be suitable for installation in wet and dry locations, and shall be resistant to oils and chemicals.”

Add the following to Article 1066.03(b) of the Standard Specifications:

“Cable sized No. 2 AWG and smaller shall be U.L. listed Type RHH/RHW and may be Type RHH/RHW/USE. Cable sized larger than No. 2 AWG shall be U.L. listed Type RHH/RHW/USE.”

Revise the second paragraph of Article 1066.05 to read:

“The tape shall have reinforced metallic detection capabilities consisting of a woven reinforced polyethylene tape with a metallic core or backing.”

REINFORCED CONCRETE LIGHT POLE, SPECIAL

Description. Contractor shall provide light pole assembly in the locations shown on the drawings. The pole assembly shall consist of all necessary appurtenances to install, level, and connect the assembly into the lighting/electrical system.

General. Light pole assembly shall consist of, but not limited to: concrete pole as noted on the drawings with the following accessories: arm, insulating boots, breakaway fuse holder, pole ground lug, No. 10 conductor within pole and arm, and required hardware to complete installation. Arm shall be an 8-foot curved aluminum pipe with a 29 9/16-inch rise.

This work shall be in accordance with Sections 830, 1069.01, and 1069.02 of the Standard Specifications except as follows: Single arm light pole shall be StressCrete model E-275-APO-G-S40 (Color S40) with No. 158-0 arm or Ameron Centrecon model MEO-7 (Color 113) with No. MO-AP-8 arm.

Method of Measurement and Basis of Payment. The cost to furnish and install this item will be paid for at the contract unit price per each for REINFORCED CONCRETE LIGHT POLE, SPECIAL as detailed in the plans.

TEMPORARY TRAFFIC SIGNAL TIMING

Effective: May 22, 2002

Revised: July 1, 2015

890.02TS

Description.

This work shall consist of developing and maintaining appropriate traffic signal timings for the specified intersection for the duration of the temporary signalized condition, as well as impact to existing traffic signal timings caused by detours or other temporary conditions.

All timings and adjustments necessary for this work shall be performed by an approved Consultant who has previous experience in optimizing Closed Loop Traffic signal Systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4424 for a listing of approved Consultants.

The following tasks are associated with TEMPORARY TRAFFIC SIGNAL TIMING.

- (a) Consultant shall attend temporary traffic signal inspection (turn-on) and/or detour meeting and conduct on-site implementation of the traffic signal timings.
- (b) Consultant shall be responsible for making fine-tuning adjustments to the timings in the field to alleviate observed adverse operating conditions and to enhance operations.
- (c) Consultant shall provide monthly observation of traffic signal operations in the field.
- (d) Consultant shall provide on-site consultation and adjust timings as necessary for construction stage changes, temporary traffic signal phase changes, and any other conditions affecting timing and phasing, including lane closures, detours, and other construction activities.
- (e) Consultant shall make timing adjustments and prepare comment responses as directed by the Area Traffic Signal Operations Engineer.

(f) Return original timing plan once construction is complete.

Basis of Payment. The work shall be paid for at the contract unit price each for TEMPORARY TRAFFIC SIGNAL TIMING, which price shall be payment in full for performing all work described herein per intersection. When the temporary traffic signal installation is turned on and/or detour implemented, 50 percent of the bid price will be paid. The remaining 50 percent of the bid price will be paid following the removal of the temporary traffic signal installation and/or detour.

RELOCATE EXISTING MAILBOX

Description. This work shall consist of temporarily relocating existing mailboxes and permanently installing them in a new location as determined by ENGINEER.

Method of Measurement This work will be measured per each mailbox for all of the work associated with both the relocation of the mailbox from its existing location to a new location during construction, and the install the mailbox in a new location when work is substantially complete to do so.

Basis of Payment. This work will be paid for at the contract unit price per each for RELOCATE EXISTING MAILBOX.

STABILIZED CONSTRUCTION ENTRANCE

Description. This work shall consist of constructing a stabilized construction entrances.

Materials. All materials for filter fabric, aggregate, concrete, and rebar must meet the requirements of the Standard Specifications.

General. The stabilized construction entrance must be constructed where construction traffic is leaving the construction site. The entrances shall meet the specifications of the Illinois Urban Manual for Stabilized Construction Entrance Code 930 and the Illinois Urban Manual Standard Drawing No. IL-630. A wash rack must be included in the entrance. Locations of the entrances shall be approved by the ENGINEER prior to their construction.

Method of Measurement. STABILIZED CONSTRUCTION ENTRANCE will not be measured for payment.

Basis of Payment. This work will not be paid for separately and shall be included in the cost of the project.

AVAILABLE REPORTS

No project specific reports were prepared.

When applicable, the following checked reports and record information is available for Bidders' reference upon request:

- Record structural plans
- Preliminary Site Investigation (PSI)
- Preliminary Environmental Site Assessment (Local PESA)
- Soils/Geotechnical Report
- Boring Logs
- Pavement Cores
- Location Drainage Study (LDS)
- Hydraulic Report
- Noise Analysis
- Other:

Those seeking these reports should request access from:

Tomasz Topor, P.E., Lead Engineer
ttopor@goplainfield.com
Village of Plainfield
14400 S Coil Plus Drive
Plainfield, IL 60544
708-230-2043
9:00 A.M. to 4:00 P.M., Monday through Friday

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION

Effective: August 1, 2012

Revised: February 2, 2017

In addition to the Contractor's equal employment opportunity (EEO) affirmative action efforts undertaken as required by this Contract, the Contractor is encouraged to participate in the incentive program described below to provide additional on-the-job training to certified graduates of the IDOT pre-apprenticeship training program, as outlined in this Special Provision.

IDOT funds, and various Illinois community colleges operate, pre-apprenticeship training programs throughout the State to provide training and skill-improvement opportunities to promote the increased employment of minority groups, disadvantaged persons and women in all aspects of the highway construction industry. The intent of this IDOT Pre-Apprenticeship Training Program Graduate (TPG) special provision (Special Provision) is to place these certified program graduates on the project site for this Contract in order to provide the graduates with meaningful on-the-job training. Pursuant to this Special Provision, the Contractor must make every reasonable effort to recruit and employ certified TPG trainees to the extent such individuals are available within a practicable distance of the project site.

Specifically, participation of the Contractor or its subcontractor in the Program entitles the participant to reimbursement for graduates' hourly wages at \$15.00 per hour per utilized TPG trainee, subject to the terms of this Special Provision. Reimbursement payment will be made even though the Contractor or subcontractor may also receive additional training program funds from other non-IDOT sources for other non-TPG trainees on the Contract, provided such other source does not specifically prohibit the Contractor or subcontractor from receiving reimbursement from another entity through another program, such as IDOT through the TPG program. With regard to any IDOT funded construction training program other than TPG, however, additional reimbursement for other IDOT programs will not be made beyond the TPG Program described in this Special Provision when the TPG Program is utilized.

No payment will be made to the Contractor if the Contractor or subcontractor fails to provide the required on-site training to TPG trainees, as solely determined by IDOT. A TPG trainee must begin training on the project as soon as the start of work that utilizes the relevant trade skill and the TPG trainee must remain on the project site through completion of the Contract, so long as training opportunities continue to exist in the relevant work classification. Should a TPG trainee's employment end in advance of the completion of the Contract, the Contractor must promptly notify the IDOT District EEO Officer for the Contract that the TPG's involvement in the Contract has ended. The Contractor must supply a written report for the reason the TPG trainee involvement terminated, the hours completed by the TPG trainee on the Contract, and the number of hours for which the incentive payment provided under this Special Provision will be or has been claimed for the separated TPG trainee.

Finally, the Contractor must maintain all records it creates as a result of participation in the Program on the Contract and furnish periodic written reports to the IDOT District EEO Officer that document its contractual performance under and compliance with this Special Provision. Finally, through participation in the Program and reimbursement of wages, the Contractor is not relieved of, and IDOT has not waived, the requirements of any federal or state labor or employment law applicable to TPG workers, including compliance with the Illinois Prevailing Wage Act.

METHOD OF MEASUREMENT: The unit of measurement is in hours.

BASIS OF PAYMENT: This work will be paid for at the contract unit price of \$15.00 per hour for each utilized certified TPG Program trainee (TRAINEES TRAINING PROGRAM GRADUATE). The estimated total number of hours, unit price, and total price must be included in the schedule of prices for the Contract submitted by Contractor prior to beginning work. The initial number of TPG trainees for which the incentive is available for this contract is one.

The Department has contracted with several educational institutions to provide screening, tutoring and pre-training to individuals interested in working as a TPG trainee in various areas of common construction trade work. Only individuals who have successfully completed a Pre-Apprenticeship Training Program at these IDOT approved institutions are eligible to be TPG trainees. To obtain a list of institutions that can connect the Contractor with eligible TPG trainees, the Contractor may contact: HCCTP TPG Program Coordinator, Office of Business and Workforce Diversity (IDOT OBWD), Room 319, Illinois Department of Transportation, 2300 S. Dirksen Parkway, Springfield, Illinois 62764. Prior to commencing construction with the utilization of a TPG trainee, the Contractor must submit documentation to the IDOT District EEO Officer for the Contract that provides the names and contact information of the TPG trainee(s) to be trained in each selected work classification, proof that the TPG trainee(s) has successfully completed a Pre-Apprenticeship Training Program, proof that the TPG is in an Apprenticeship Training Program approved by the U.S. Department of Labor Bureau of Apprenticeship Training, and the start date for training in each of the applicable work classifications.

To receive payment, the Contractor must provide training opportunities aimed at developing a full journeyworker in the type of trade or job classification involved. During the course of performance of the Contract, the Contractor may seek approval from the IDOT District EEO Officer to employ additional eligible TPG trainees. In the event the Contractor subcontracts a portion of the contracted work, it must determine how many, if any, of the TPGs will be trained by the subcontractor. Though a subcontractor may conduct training, the Contractor retains the responsibility for meeting all requirements imposed by this Special Provision. The Contractor must also include this Special Provision in any subcontract where payment for contracted work performed by a TPG trainee will be passed on to a subcontractor.

Training through the Program is intended to move TPGs toward journeyman status, which is the primary objective of this Special Provision. Accordingly, the Contractor must make every effort to enroll TPG trainees by recruitment through the Program participant educational institutions to the extent eligible TPGs are available within a reasonable geographic area of the project. The Contractor is responsible for demonstrating, through documentation, the recruitment efforts it has undertaken prior to the determination by IDOT whether the Contractor is in compliance with this Special Provision, and therefore, entitled to the Training Program Graduate reimbursement of \$15.00 per hour.

Notwithstanding the on-the-job training requirement of this TPG Special Provision, some minimal off-site training is permissible as long as the offsite training is an integral part of the work of the contract and does not compromise or conflict with the required on-site training that is central to the purpose of the Program. No individual may be employed as a TPG trainee in any work classification in which he/she has previously successfully completed a training program leading to journeyman status in any trade, or in which he/she has worked at a journeyman level or higher.

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION
FOR
INSURANCE

Effective: February 1, 2007
Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

The Contractor shall name the following entities as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27:

Village of Plainfield

Plainfield Township

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

State of Illinois
 DEPARTMENT OF TRANSPORTATION
 Bureau of Local Roads & Streets
 SPECIAL PROVISION
 FOR
 LOCAL QUALITY ASSURANCE/ QUALITY MANAGEMENT QC/QA
 Effective: January 1, 2022

Replace the first five paragraphs of Article 1030.06 of the Standard Specifications with the following:

“1030.06 Quality Management Program. The Quality Management Program (QMP) will be Quality Control / Quality Assurance (QC/QA) according to the following.”

Delete Article 1030.06(d)(1) of the Standard Specifications.

Revise Article 1030.09(g)(3) of the Standard Specifications to read:

“(3) If core testing is the density verification method, the Contractor shall provide personnel and equipment to collect density verification cores for the Engineer. Core locations will be determined by the Engineer following the document “Hot-Mix Asphalt QC/QA Procedure for Determining Random Density Locations” at density verification intervals defined in Article 1030.09(b). After the Engineer identifies a density verification location and prior to opening to traffic, the Contractor shall cut a 4 in. (100 mm) diameter core. With the approval of the Engineer, the cores may be cut at a later time.”

Revise Article 1030.09(h)(2) of the Standard Specifications to read:

“(2) After final rolling and prior to paving subsequent lifts, the Engineer will identify the random density verification test locations. Cores or nuclear density gauge testing will be used for density verification. The method used for density verification will be as selected below.

| Density Verification Method | |
|-------------------------------------|---|
| <input type="checkbox"/> | Cores |
| <input checked="" type="checkbox"/> | Nuclear Density Gauge (Correlated when paving ≥ 3,000 tons per mixture) |

Density verification test locations will be determined according to the document “Hot-Mix Asphalt QC/QA Procedure for Determining Random Density Locations”. The density testing interval for paving wider than or equal to 3 ft (1 m) will be 0.5 miles (800 m) for lift thicknesses of 3 in. (75 mm) or less and 0.2 miles (320 m) for lift thicknesses greater than 3 in. (75 mm). The density testing interval for paving less than 3 ft (1 m) wide will be 1 mile (1,600 m). If a day’s paving will be less than the prescribed density testing interval, the length of the day’s paving will be the interval for that day. The density testing interval for mixtures used for patching will be 50 patches with a minimum of one test per mixture per project.

If core testing is the density verification method, the Engineer will witness the Contractor coring, and secure and take possession of all density samples at the

density verification locations. The Engineer will test the cores collected by the Contractor for density according to Illinois Modified AASHTO T 166 or AASHTO T 275.

If nuclear density gauge testing is the density verification method, the Engineer will conduct nuclear density gauge tests. The Engineer will follow the density testing procedure detailed in the document "Illinois Modified ASTM D 2950, Standard Test Method for Density of Bituminous Concrete In-Place by Nuclear Method".

A density verification test will be the result of a single core or the average of the nuclear density tests at one location. The results of each density test must be within acceptable limits. The Engineer will promptly notify the Contractor of observed deficiencies."

Revise the seventh paragraph and all subsequent paragraphs in Section D. of the document "Hot-Mix Asphalt QC/QA Initial Daily Plant and Random Samples" to read:

"Mixtures shall be sampled from the truck at the plant by the Contractor following the same procedure used to collect QC mixture samples (Section A). This process will be witnessed by the Engineer who will take custody of the verification sample. Each sample bag with a verification mixture sample will be secured by the Engineer using a locking ID tag. Sample boxes containing the verification mixture sample will be sealed/taped by the Engineer using a security ID label."



Storm Water Pollution Prevention Plan



| | | |
|-----------------------------|--------------------------------------|----------------------------------|
| Route TR 0052 | Marked Route Indian Boundary Road | Section Number 17-00064-00-BR |
| Project Number Y36A(120) | County Will | Contract Number 61H25 |

This plan has been prepared to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit No. ILR10 (Permit ILR10), issued by the Illinois Environmental Protection Agency (IEPA) for storm water discharges from construction site activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

| | |
|--|-----------------|
| Signature  | Date 7/21/23 |
|--|-----------------|

| | | |
|-------------------------------------|------------------------|---------------------------------|
| Print Name Tomasz J. Topor, P.E. | Title Lead Engineer | Agency Village of Plainfield |
|-------------------------------------|------------------------|---------------------------------|

Note: Guidance on preparing each section of BDE 2342 can be found in Chapter 41 of the IDOT Bureau of Design and Environment (BDE) Manual. Chapter 41 and this form also reference the IDOT Drainage Manual which should be readily available.

I. Site Description:

A. Provide a description of the project location; include latitude and longitude, section, town, and range:

The project is located on Indian Boundary Road, beginning south of the intersection with Rowley Road and ending north at the intersection with Creekside Drive. The total net and gross length of the project is 822.95 feet (0.16 mile) for the reconstruction and widening of Indian Boundary Road in the Village of Plainfield, Will County. The project is located at 46° 36' 1.7" N and 88° 13' 56.5" W in Section 17, Township 36 North, Range 9 East.

B. Provide a description of the construction activity which is the subject of this plan. Include the number of construction stages, drainage improvements, in-stream work, installation, maintenance, removal of erosion measures, and permanent stabilization:

The project includes the full depth reconstruction and widening of Indian Boundary Road, as well as the reconstruction of the existing culvert structure at the crossing of Spring Hole Creek. The work to be performed under this contract consists of removing the existing pavement and replacing it with full-depth hot mix asphalt pavement, combination curb and gutter and sidewalk addition, pavement markings, landscaping, storm sewer and structures, water main and fire hydrant replacement, and other miscellaneous items to be constructed along the length of the project. The existing culvert structure at Spring Hole Creek will be replaced.

Erosion and sediment control measures for the project include the use of temporary seeding, erosion control blanket, perimeter erosion barrier, dust control watering, inlet filters, inlet and pipe protection, permanent seeding, and sodding.

C. Provide the estimated duration of this project:

4 months

D. The total area of the construction site is estimated to be 2.60 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 2.60 acres.

E. The following are weighted averages of the runoff coefficient for this project before and after construction activities are completed; see Section 4-102 of the IDOT Drainage Manual:

Existing C = 0.35, Proposed C = 0.43

F. List all soils found within project boundaries; include map unit name, slope information, and erosivity:

294C2 - Symerton silt loam, 50 to 10 percent slopes, eroded

356A - Elpaso silty clay loam, 0 to 2 percent slopes

541B - Graymont silt loam, 2 to 5 percent slopes

G. If wetlands were delineated for this project, provide an extent of wetland acreage at the site; see Phase I report:

See Attached Wetland Exhibit

H. Provide a description of potentially erosive areas associated with this project:

Backslopes from the proposed cut and fill sections are at maximum 1:3 slope. Upstream and downstream of the proposed culvert replacement, streambanks will be stabilized with size RR-5 riprap.

I. The following is a description of soil disturbing activities by stages, their locations, and their erosive factors (e.g., steepness of slopes, length of slopes, etc.):

The project consists of one construction stage, as the project site will be closed to traffic and detoured. The following scope of work will be performed in the single stage:

1. Pavement removal.
2. Existing topsoil will be stripped and removed from the site.
3. Roadway embankments will be built up in steps or cut sections will be excavated with maximum 1:3 side slopes.
4. Replacement of existing culvert structure at Spring Hole Creek
5. Installation of storm sewer and structures.
6. Installation of subgrade, curb and gutter, and pavement.
7. Installation of proposed lighting.
8. Installation of sidewalk.
9. Installation of pavement markings and signing.
10. Final restoration and landscaping.

J. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking (to be added after contractor identifies locations), areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands), and locations where storm water is discharged to surface water including wetlands.

K. Identify who owns the drainage system (municipality or agency) this project will drain into:

Village of Plainfield

L. The following is a list of General NPDES ILR40 permittees within whose reporting jurisdiction this project is located:

Village of Plainfield

M. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. In addition, include receiving waters that are listed as Biologically Significant Streams by the Illinois Department of Natural Resources (IDNR). The location of the receiving waters can be found on the erosion and sediment control plans:

DuPage River

N. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes (i.e., 1:3 or steeper), highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc. Include any commitments or requirements to protect adjacent wetlands.

For any storm water discharges from construction activities within 50-feet of Waters of the U.S. (except for activities for water-dependent structures authorized by a Section 404 permit, describe: a) How a 50-foot undisturbed natural buffer will be provided between the construction activity and the Waters of the U.S. or b) How additional erosion and sediment controls will be provided within that area.

Areas that are protected with perimeter erosion control barrier or temporary fence shall remain undisturbed throughout the duration of the project. In order to protect the existing Waters of the U.S., the proposed storm sewer will discharge directly into the concrete box culvert crossing of the Spring Hole Creek. This will eliminate erosive impacts from the discharge into the creek. Additionally, the proposed streambank stabilization which includes placing riprap, turf reinforcement mat, and natural seed mix will help restore the area and prevent further erosion.

O. Per the Phase I document, the following sensitive environmental resources are associated with this project and may have the potential to be impacted by the proposed development. Further guidance on these resources is available in Section 41-4 of the BDE Manual.

[Empty text box]

303(d) Listed receiving waters for suspended solids, turbidity, or siltation.
The name(s) of the listed water body, and identification of all pollutants causing impairment:

[Empty text box]

Provide a description of how erosion and sediment control practices will prevent a discharge of sediment resulting from a storm event equal to or greater than a twenty-five (25) year, twenty-four (24) hour rainfall event:

[Empty text box]

Provide a description of the location(s) of direct discharge from the project site to the 303(d) water body:

[Empty text box]

Provide a description of the location(s) of any dewatering discharges to the MS4 and/or water body:

[Empty text box]

Applicable Federal, Tribal, State, or Local Programs

[Empty text box]

Floodplain

Spring Hole Creek

Historic Preservation

[Empty text box]

Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity or siltation
TMDL (fill out this section if checked above)

The name(s) of the listed water body:

[Empty text box]

Provide a description of the erosion and sediment control strategy that will be incorporated into the site design that is consistent with the assumptions and requirements of the TMDL:

[Empty text box]

If a specific numeric waste load allocation has been established that would apply to the project's discharges, provide a description of the necessary steps to meet that allocation:

[Empty text box]

Threatened and Endangered Species/Illinois Natural Areas (INAI)/Nature Preserves

Other

Wetland

Disturbed wetlands to be mitigated via purchasing credits from wetland bank

P. The following pollutants of concern will be associated with this construction project:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Antifreeze / Coolants | <input checked="" type="checkbox"/> Solid Waste Debris |
| <input checked="" type="checkbox"/> Concrete | <input type="checkbox"/> Solvents |
| <input checked="" type="checkbox"/> Concrete Curing Compounds | <input checked="" type="checkbox"/> Waste water from cleaning construction equipments |
| <input checked="" type="checkbox"/> Concrete Truck Waste | <input type="checkbox"/> Other (Specify) _____ |
| <input checked="" type="checkbox"/> Fertilizers / Pesticides | <input type="checkbox"/> Other (Specify) _____ |
| <input checked="" type="checkbox"/> Paints | <input type="checkbox"/> Other (Specify) _____ |
| <input checked="" type="checkbox"/> Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids) | <input type="checkbox"/> Other (Specify) _____ |
| <input checked="" type="checkbox"/> Soil Sediment | <input type="checkbox"/> Other (Specify) _____ |

II. Controls:

This section of the plan addresses the controls that will be implemented for each of the major construction activities described in Section I.C above and for all use areas, borrow sites, and waste sites. For each measure discussed, the Contractor will be responsible for its implementation as indicated. The Contractor shall provide to the Resident Engineer a plan for the implementation of the measures indicated. The Contractor, and subcontractors, will notify the Resident Engineer of any proposed changes, maintenance, or modifications to keep construction activities compliant with the Permit ILR10. Each such Contractor has signed the required certification on forms which are attached to, and are a part of, this plan:

A. **Erosion and Sediment Controls:** At a minimum, controls must be coordinated, installed and maintained to:

1. Minimize the amount of soil exposed during construction activity;
2. Minimize the disturbance of steep slopes;
3. Maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration, unless infeasible;
4. Minimize soil compaction and, unless infeasible, preserve topsoil.

B. **Stabilization Practices:** Provided below is a description of interim and permanent stabilization practices, including site- specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II.B.1 and II.B.2, stabilization measures shall be initiated **immediately** where construction activities have temporarily or permanently ceased, but in no case more than **one (1) day** after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of fourteen (14) or more calendar days.

1. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.
2. On areas where construction activity has temporarily ceased and will resume after fourteen (14) days, a temporary stabilization method can be used.

The following stabilization practices will be used for this project:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Erosion Control Blanket / Mulching | <input type="checkbox"/> Temporary Turf (Seeding, Class 7) |
| <input type="checkbox"/> Geotextiles | <input type="checkbox"/> Temporary Mulching |
| <input checked="" type="checkbox"/> Permanent Seeding | <input type="checkbox"/> Vegetated Buffer Strips |
| <input checked="" type="checkbox"/> Preservation of Mature Seeding | <input type="checkbox"/> Other (Specify) _____ |
| <input checked="" type="checkbox"/> Protection of Trees | <input type="checkbox"/> Other (Specify) _____ |

- Sodding
- Temporary Erosion Control Seeding
- Other (Specify) _____
- Other (Specify) _____

Describe how the stabilization practices listed above will be utilized during construction:

Excavated areas shall be sodded or final seeded once final gradation has taken place, as shown on the plans. If not, they shall be temporarily seeded in accordance with the Standard Specifications for Road and Bridge Construction. Temporary erosion control blanket shall be used on all areas of temporary seed. Wherever possible, existing trees shall be protected from adjacent construction activities.

Stabilization controls runoff volume and velocity, peak runoff rates, and volumes of discharge to minimize exposed soil, disturbed slopes, and sediment discharges from construction, and it provides for natural buffers and minimization of soil compaction. Existing vegetated areas where disturbance can be avoided will not require stabilization.

Describe how the stabilization practices listed above will be utilized after construction activities have been completed:

The temporary erosion control system will be removed and permanent erosion control items will be installed as shown on the plans. Maintenance and repair of these items shall be the responsibility of the Contractor prior to completion of the project. Upon completion of the project, the maintenance and repair of the permanent erosion control items shall be the responsibility of the Village of Plainfield.

C. Structural Practices: Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include but are not limited to: perimeter erosion barrier, earth dikes, drainage swales, sediment traps, ditch checks, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

- | | |
|--|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> Aggregate Ditch <input type="checkbox"/> Concrete Revetment Mats <input type="checkbox"/> Dust Suppression <input checked="" type="checkbox"/> Dewatering Filtering <input type="checkbox"/> Gabions <input checked="" type="checkbox"/> In-Stream or Wetland Work <input checked="" type="checkbox"/> Level Spreaders <input type="checkbox"/> Paved Ditch <input type="checkbox"/> Permanent Check Dams <input checked="" type="checkbox"/> Perimeter Erosion Barrier <input type="checkbox"/> Permanent Sediment Basin <input type="checkbox"/> Retaining Walls <input checked="" type="checkbox"/> Riprap <input checked="" type="checkbox"/> Rock Outlet Protection <input type="checkbox"/> Sediment Trap <input checked="" type="checkbox"/> Storm Drain Inlet Protection | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Stabilized Construction Exits <input type="checkbox"/> Stabilized Trench Flow <input type="checkbox"/> Slope Mattress <input type="checkbox"/> Slope Walls <input checked="" type="checkbox"/> Temporary Ditch Check <input type="checkbox"/> Temporary Pipe Slope Drain <input type="checkbox"/> Temporary Sediment Basin <input type="checkbox"/> Temporary Stream Crossing <input checked="" type="checkbox"/> Turf Reinforcement Mats <input checked="" type="checkbox"/> Other (Specify) <u>Cofferdam</u> <input checked="" type="checkbox"/> Other (Specify) <u>Subsurf. Pipe Underdrains</u> <input type="checkbox"/> Other (Specify) _____ |
|--|---|

Describe how the structural practices listed above will be utilized during construction:

Perimeter erosion barrier will be installed at the beginning of construction and remain for the duration of the project. Perimeter erosion barrier will reduce the potential for untreated runoff to flow offsite. Perimeter erosion barrier will be comprised of silt fence. Silt fence will be used as perimeter erosion barrier in areas where there is the potential for erosion and sediment to sheet flow offsite. Temporary ditch checks shall also be utilized to help slow and filter flows to prevent off site runoff of eroded soils.

Storm drain inlet protection will be installed on existing and proposed storm sewer structures within the curb and gutter. Storm drain inlet and pipe protection will be installed on existing and proposed storm sewer structures and culverts within the parkways and ditches. Both measures will be used to treat runoff from the jobsite and reduce the potential for offsite contamination.

Per Contractor's preference, within allowable specified requirements, flow from the Spring Hole Creek shall be diverted from disturbed construction areas using cofferdams and/or filtered dewatering techniques. Stabilized construction exits shall be utilized as needed to prevent erosion and tracking of soil and materials off site.

Describe how the structural practices listed above will be utilized after construction activities have been completed:

Stone riprap and rock outlet protection shall be constructed at culvert outlets to help dissipated energy and prevent erosion of soils after construction.

Proposed turf reinforcement mats and natural seeding shall also be constructed in order to prevent future erosion of turf areas.

D. Treatment Chemicals

Will polymer flocculants or treatment chemicals be utilized on this project: Yes No

If yes above, identify where and how polymer flocculants or treatment chemicals will be utilized on this project.

E. Permanent (i.e., Post-Construction) Storm Water Management Controls: Provided below is a description of measures that will be installed during the construction process to control volume and pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

- Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

The practices selected for implementation were determined based on the technical guidance in Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT BDE Manual. If practices other than those discussed in Chapter 41 are selected for implementation or if practices are applied to situations different from those covered in Chapter 41, the technical basis for such decisions will be explained below.

- Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Description of permanent storm water management controls:

Permanent stormwater management features include final proposed seeding and erosion control blanket for all disturbed areas. The downstream ends of end sections will have stone riprap. Where end sections discharge offsite into a flat area, the stone riprap is shaped as a level spreader.

Proposed runoff collected by storm inlets shall be drained to several catch basins spaced throughout the storm sewer system. These catch basins shall catch debris and sediment runoff from the roadway, and shall be cleaned regularly by the Village of Plainfield.

F. Approved State or Local Laws: The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the IEPA's Illinois Urban Manual. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under the Permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan. Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

All management practices, control, and other provisions provided in this plan are in accordance with the IDOT Standard Specifications for Road and Bridge Construction.

G. Contractor Required Submittals: Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342A.

1. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:

- Approximate duration of the project, including each stage of the project
- Rainy season, dry season, and winter shutdown dates
- Temporary stabilization measures to be employed by contract phases
- Mobilization time-frame
- Mass clearing and grubbing/roadside clearing dates
- Deployment of Erosion Control Practices
- Deployment of Sediment Control Practices (including stabilized cons

- Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
- Paving, saw-cutting, and any other pavement related operations
- Major planned stockpiling operation
- Time frame for other significant long-term operations or activities that may plan non-storm water discharges as dewatering, grinding, etc
- Permanent stabilization activities for each area of the project

2. During the pre-construction meeting, the Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:
- Temporary Ditch Checks - Identify what type and the source of Temporary Ditch Checks that will be installed as part of the project. The installation details will then be included with the SWPPP.
 - Vehicle Entrances and Exits - Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
 - Material Delivery, Storage and Use - Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
 - Stockpile Management - Identify the location of both on-site and off-site stockpiles. Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
 - Waste Disposal - Discuss methods of waste disposal that will be used for this project.
 - Spill Prevention and Control - Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.)
 - Concrete Residuals and Washout Wastes - Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
 - Litter Management - Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
 - Vehicle and Equipment Fueling - Identify equipment fueling locations for this project and what BMPs will be used to ensure containment and spill prevention.
 - Vehicle and Equipment Cleaning and Maintenance - Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
 - Dewatering Activities - Identify the controls which will be used during dewatering operations to ensure sediments will not leave the construction site.
 - Polymer Flocculants and Treatment Chemicals - Identify the use and dosage of treatment chemicals and provide the Resident Engineer with Material Safety Data Sheets. Describe procedures on how the chemicals will be used and identify who will be responsible for the use and application of these chemicals. The selected individual must be trained on the established procedures.
 - Additional measures indicated in the plan.

III. Maintenance:

When requested by the Contractor, the Resident Engineer will provide general maintenance guides (e.g., IDOT Erosion and Sediment Control Field Guide) to the Contractor for the practices associated with this project. Describe how all items will be checked for structural integrity, sediment accumulation and functionality. Any damage or undermining shall be repaired immediately. Provide specifics on how repairs will be made. The following additional procedures will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. It will be the Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

All erosion and sediment control measures will be maintained in accordance with the IDOT Erosion and Sediment Control Field Guide for Construction Inspection.

All erosion and sediment control measures should be checked weekly and after each rainfall 0.5 inch or greater in a 24-hour period or equivalent snowfall. Additionally, during winter months, all measures should be checked after each significant snowmelt.

All offsite borrow, waste, and use areas are part of the construction site and are to be inspected according to the language in this section.

- (a) Perimeter Erosion Barrier—Barrier shall be installed prior to any earth-disturbing activities. It shall have no tears or gaps and must not be leaning. Any stakes that are missing or broken must be replaced immediately. If the sediment reaches one-third the height of the barrier, maintenance or replacement is required. Repair the barrier if undermining occurs anywhere along its entire length. Remove the barrier once final stabilization is established.
- (b) Inlet Protection—Remove sediment from inlet filter basket when basket is 25% full or when 50% of the fabric pores are covered with silt. Remove ponded water on road surfaces immediately. Clean filter if standing water is present longer than one hour after a rain event. Remove trash accumulated around or on top of protection. When a filter is removed for cleaning, replace filter if any tear is present.
- (c) Temporary Seeding—A visual inspection of this item is necessary to determine whether it has germinated. If the seed has failed to germinate, another application of seed may be necessary. Restore rills greater than 4 inches deep as quickly as possible on slopes steeper than 1V:4H to prevent the sheet-flow from becoming concentrated flow patterns. If excessive weed development occurs, mowing may be necessary.
- (d) Permanent Sodding—A visual inspection of this item is necessary to determine whether it has germinated. If the sod has failed to germinate, removal and replacement of sod and supplemental watering may be necessary.
- (e) Erosion Control Blanket—Repair damage from water running beneath the blanket and restore blanket when displacement occurs. Reseeding may be necessary. Replace all displaced blankets and re-staple.
- (f) Permanent Seeding—A visual inspection of this item is necessary to determine whether it has germinated. If the seed has failed to germinate, reseeding and supplemental watering may be necessary.

IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site including Borrow, Waste, and Use Areas, which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site using IDOT Storm Water Pollution Prevention Plan Erosion Control Inspection Report, BC 2259. Such inspections shall be conducted at least once every seven (7) calendar days and within twenty-four (24) hours of the end of a storm or by the end of the following business or work day that is 0.5 inch or greater or equivalent snowfall.

Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities are conducted, or if there is 0.5" or greater rain event, or a discharge due to snowmelt occurs.

If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer shall notify the appropriate IEPA Field Operations Section office by email at: epa.swnoncomp@illinois.gov, telephone or fax within twenty-four (24) hours of the incident. The Resident Engineer shall then complete and submit an "Incidence of Non-Compliance" (ION) report for the identified violation within five (5) days of the incident. The Resident Engineer shall use forms provided by IEPA and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of non-compliance shall be signed by a responsible authority in accordance with Part VI. G of the Permit ILR10.

The Incidence of Non-Compliance shall be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Compliance Assurance Section
1021 North Grand East
Post Office Box 19276
Springfield, Illinois 62794-9276

V. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the Contractor and/or penalties under the Permit ILR10 which could be passed on to the Contractor.



Contractor Certification Statement



Prior to conducting any professional services at the site covered by this contract, the Contractor and every subcontractor must complete and return to the Resident Engineer the following certification. A separate certification must be submitted by each firm. Attach to this certification all items required by Section II.G of the Storm Water Pollution Prevention Plan (SWPPP) which will be handled by the Contractor/subcontractor completing this form.

| | | |
|-----------------------------|--------------------------------------|----------------------------------|
| Route TR 0052 | Marked Route Indian Boundary Road | Section Number 17-00064-00-BR |
| Project Number Y36A(120) | County Will | Contract Number 61H25 |

This certification statement is a part of SWPPP for the project described above, in accordance with the General NPDES Permit No. ILR10 issued by the Illinois Environmental Protection Agency.

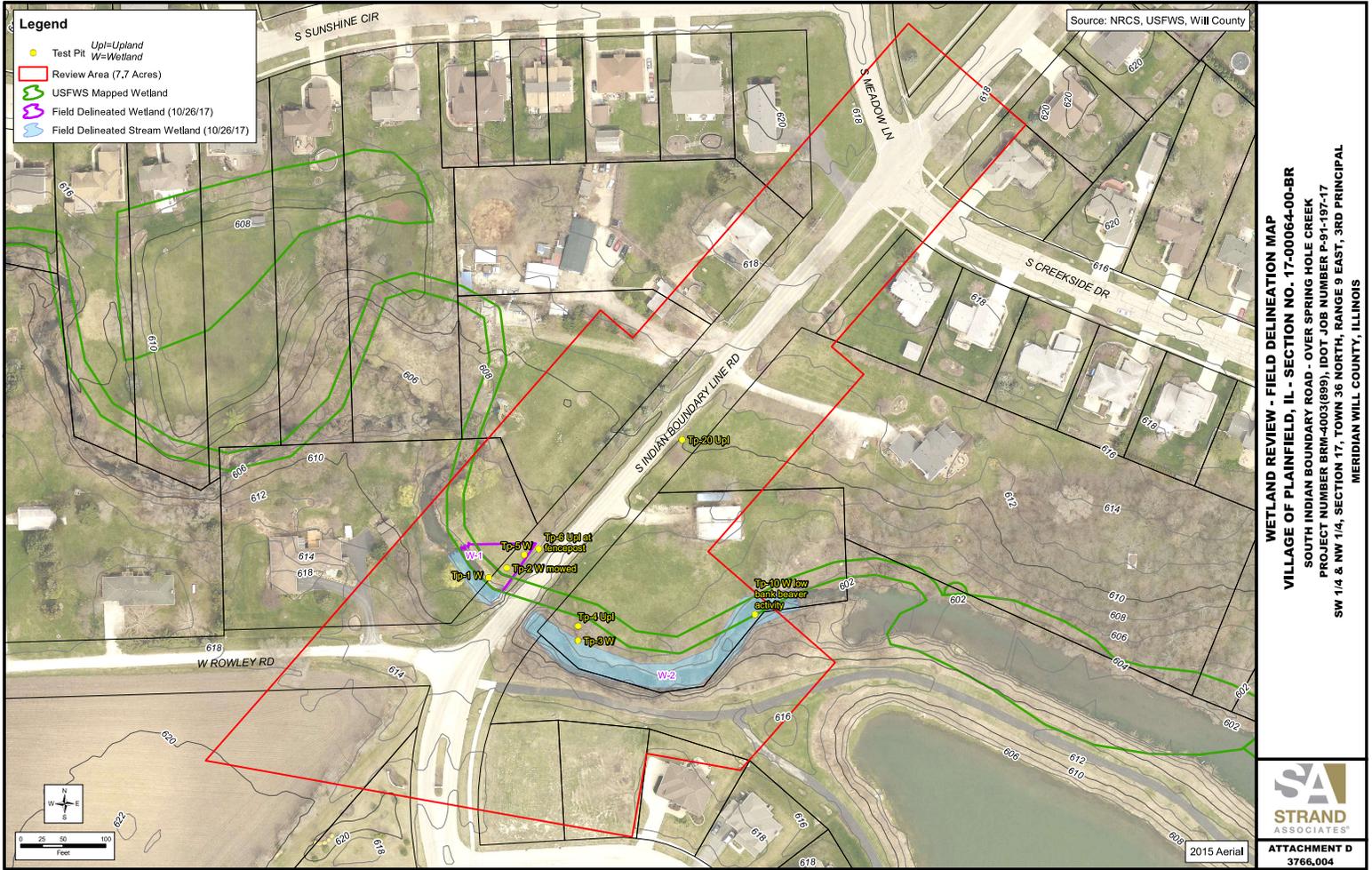
I certify under penalty of law that I understand the terms of the Permit No. ILR 10 that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Additionally, I have read and understand all of the information and requirements stated in SWPPP for the above mentioned project; I have received copies of all appropriate maintenance procedures; and, I have provided all documentation required to be in compliance with the Permit ILR10 and SWPPP and will provide timely updates to these documents as necessary.

- Contractor
- Sub-Contractor

| | | | |
|----------------------|------------|-------------|----------------|
| Signature | | Date | |
| [Signature Box] | | [Date Box] | |
| Print Name | | Title | |
| [Print Name Box] | | [Title Box] | |
| Name of Firm | | Phone | |
| [Name of Firm Box] | | [Phone Box] | |
| Street Address | City | State | Zip Code |
| [Street Address Box] | [City Box] | [State Box] | [Zip Code Box] |

Items which this Contractor/subcontractor will be responsible for as required in Section II.G. of SWPPP





Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Division of Water Pollution Control Notice of Intent (NOI) for General Permit to Discharge Storm Water Associated with Construction Site Activities

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at the above address.

For Office Use Only

OWNER INFORMATION

Permit No. ILR10 _____

Company/Owner Name: Village of Plainfield

Mailing Address: 14400 S Coil Plus Drive

Phone: 815-230-2037

City: Plainfield State: IL Zip: 60544

Fax: N/A

Contact Person: Scott Threewitt

E-mail: sthreewitt@golplainfield.com

Owner Type (select one) City

CONTRACTOR INFORMATION

MS4 Community: Yes No

Contractor Name: _____

Mailing Address: _____ Phone: _____

City: _____ State: _____ Zip: _____ Fax: _____

CONSTRUCTION SITE INFORMATION

Select One: New Change of information for: ILR10 _____

Project Name: Indian Boundary Road at Spring Hole Creek County: Will

Street Address: Indian Boundary Road City: Plainfield IL Zip: 60544

Latitude: 41 36 1.7 N Longitude: 88 13 56.5 W 17 36N 9E
(Deg) (Min) (Sec) (Deg) (Min) (Sec) Section Township Range

Approximate Construction Start Date May 1, 2024 Approximate Construction End Date Aug 31, 2024

Total size of construction site in acres: 2.60 acres

If less than 1 acre, is the site part of a larger common plan of development?

Yes No

Fee Schedule for Construction Sites:
Less than 5 acres - \$250
5 or more acres - \$750

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

Has the SWPPP been submitted to the Agency? Yes No

(Submit SWPPP electronically to: epa.constilr10swppp@illinois.gov)

Location of SWPPP for viewing: Address: 14400 S Coil Plus Drive City: Plainfield

SWPPP contact information: Inspector qualifications: _____

Contact Name: Tomasz, Lead Engineer P.E. _____

Phone: 815-230-2037 Fax: N/A E-mail: sthreewitt@golplainfield.com

Project inspector, if different from above Inspector qualifications: _____

Inspector's Name: Marc Grigas P.E. _____

Phone: 815-744-4200 Fax: 815-744-4215 E-mail: Marc.Grigas@strand.com

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

TYPE OF CONSTRUCTION (select one)

Construction Type Reconstruction

SIC Code: _____

Type a detailed description of the project:

This work consists of removing the existing pavement and replacing it with full-depth hot mix asphalt pavement, combination curb and gutter, sidewalk, pavement markings, landscaping, storm sewer and structures, fire hydrants, and other miscellaneous items to be constructed along the length of the project. The existing structure at Spring Hole Creek will be replaced.

HISTORIC PRESERVATION AND ENDANGERED SPECIES COMPLIANCE

Has the project been submitted to the following state agencies to satisfy applicable requirements for compliance with Illinois law on:

Historic Preservation Agency Yes No <https://www2.illinois.gov/dnrhistoric/Preserve/Pages/Resource-Protection.aspx>

Endangered Species Yes No <http://dnr.illinois.gov/ecopublic/>

RECEIVING WATER INFORMATION

Does your storm water discharge directly to: Waters of the State or Storm Sewer

Owner of storm sewer system: Village of Plainfield

Name of closest receiving water body to which you discharge: Spring Hole Creek

Mail completed form to: Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Permit Section
Post Office Box 19276
Springfield, Illinois 62794-9276
or call (217) 782-0610
FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a storm water pollution prevention plan and a monitoring program plan, will be complied with.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Owner Signature:

Date:

Tomasz Topor
Printed Name:

Lead Engineer
Title:

INSTRUCTIONS FOR COMPLETION OF CONSTRUCTION ACTIVITY NOTICE OF INTENT (NOI) FORM

Submit original, electronic or facsimile copies. Facsimile and/or electronic copies should be followed-up with submission of an original signature copy as soon as possible. Please write "copy" under the "For Office Use Only" box in the upper right hand corner of the first page.

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Permit Section
Post Office Box 19276
Springfield, Illinois 62794-9276
or call (217) 782-0610

FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

Reports must be typed or printed legibly and signed.

Any facility that is not presently covered by the General NPDES Permit for Storm Water Discharges From Construction Site Activities is considered a new facility.

If this is a change in your facility information, renewal, etc., please fill in your permit number on the appropriate line, changes of information or permit renewal notifications do not require a fee.

NOTE: FACILITY LOCATION IS NOT NECESSARILY THE FACILITY MAILING ADDRESS, BUT SHOULD DESCRIBE WHERE THE FACILITY IS LOCATED.

Use the formats given in the following examples for correct form completion.

| | Example | Format |
|----------|---------|--|
| Section | 12 | 1 or 2 numerical digits |
| Township | 12N | 1 or 2 numerical digits followed by "N" or "S" |
| Range | 12W | 1 or 2 numerical digits followed by "E" or "W" |

For the Name of Closest Receiving Waters, do not use terms such as ditch or channel. For unnamed tributaries, use terms which include at least a named main tributary such as "Unnamed Tributary to Sugar Creek to Sangamon River."

Submission of initial fee and an electronic submission of Storm Water Pollution Prevention Plan (SWPPP) for Initial Permit prior to the Notice of Intent being considered complete for coverage by the ILR10 General Permits. Please make checks payable to: Illinois EPA at the above address.

Construction sites with less than 5 acres of land disturbance - fee is \$250.

Construction sites with 5 or more acres of land disturbance - fee is \$750.

SWPPP should be submitted electronically to: epa.constilr10swppp@illinois.gov. When submitting electronically, use Project Name and City as indicated on NOI form.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue, East; Post Office Box 19276; Springfield, IL 62794-9276

Division of Public Water Supplies

Telephone 217/782-1724

PUBLIC WATER SUPPLY CONSTRUCTION PERMIT

SUBJECT: PLAINFIELD (1970800)

Permit Issued to:
Village of Plainfield
24401 West Lockport Street
Plainfield, Illinois 60544

PERMIT NUMBER: 0023-FY2022

DATE ISSUED: August 27, 2021
PERMIT TYPE: Water Main Extension

The issuance of this permit is based on plans and specifications prepared by the engineers/architects indicated and are identified as follows. This permit is issued for the construction and/or installation of the public water supply improvements described in this document, in accordance with the provisions of the Environmental Protection Act, Title IV, Sections 14 through 17, and Title X, Sections 39 and 40, and is subject to the conditions printed on the last page of this permit and the ADDITIONAL CONDITIONS listed below.

FIRM: Strand Associates, Inc.
NUMBER OF PLAN SHEETS: 13
TITLE OF PLANS: "Indian Boundary Road over Spring Hole Creek Bridge Replacement"
APPLICATION RECEIVED DATE: July 8, 2021

PROPOSED IMPROVEMENTS:

*** Install approximately 850 lineal feet of 12 inch diameter water main.***

CONDITIONS:

1. The community water supply shall provide a lead informational notice to each potentially affected residence at least 14 days prior to permitted water main work. The notification provided by the community water supply must satisfy the requirements of Section 17.11 of the Act, 415 ILCS 5/17.11. The Responsible Operator in Charge of the community water system is responsible for preparing the notice. A copy of the notice used must be submitted to the Agency with the Application for Operating Permit.
2. All water mains shall be satisfactorily disinfected prior to use pursuant to Ill. Adm. Code, Title 35, Subtitle F, Section 602.310. Two consecutive sets of samples collected at least 24 hours apart must show the absence of coliform bacteria. The samples must be collected from every 1,200 feet of new water main along each branch and from the end of the line. An operating permit must be obtained before the project is placed in service
3. The permit approval is for the Application and Schedule "B", and plans received by the Agency on July 8, 2021. A modified Application and new Cover Sheets for the Plans were received on July 20, 2021. Modified plan Sheets 40 and 41 were received by the Agency on August 18, 2021.



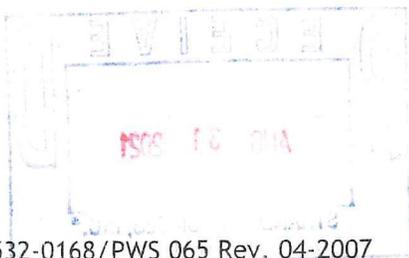
PLAINFIELD (1970800)
PERMIT NUMBER: 0023-FY2022
Page 2

DCC:CLK

cc: Strand Associates, Inc.
Will County Health Department
IDPH/DEH – Plumbing and Water Quality Program
Elgin Regional Office



David C. Cook, P.E.
Manager, Permit Section
Division of Public Water Supplies



Lead Informational Notice

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Dear Water Customer:

Today's Date: _____

Our water system will soon begin a water line maintenance and/or construction project that may affect the lead content of your potable water supply. Lead, a metal found in natural deposits, is harmful to human health, especially young children. The most common exposure to lead is swallowing or breathing in lead paint chips and dust. However, lead in drinking water can also be a source of lead exposure. In the past, lead was used in some water service lines and household plumbing materials. Lead in water usually occurs through corrosion of plumbing products containing lead; however, disruption (construction or maintenance) of lead service lines may also temporarily increase lead levels in the water supply. This disruption may be sometimes caused by water main maintenance/replacement. As of June 19, 1986, new or replaced water serviced lines and new household plumbing materials could not contain more than 8% lead. Lead content was further reduced on January 4, 2014, when plumbing materials must now be certified as "lead-free" to be used (weighted average of wetted surface cannot be more than 0.25% lead).

The purpose of this notice is for informational purposes only. While it's not known for certain whether or not this particular construction project will adversely affect the lead (if present) plumbing in and outside your home, below describes some information about the project and some preventative measures you can take to help reduce the amount of lead in drinking water.

Project Start Date: _____ Project expected to be completed by: _____

Project location and description:

What you can do to reduce lead exposure in drinking water during this construction project:

Run your water to flush out lead. If the plumbing in your home is accessible; you may be able to inspect your own plumbing to determine whether or not you have a lead service line. Otherwise, you will most likely have to hire a plumber.

- If you do not have a lead service line, running the water for 1 – 2 minutes at the kitchen tap should clear the lead from your household plumbing to the kitchen tap. Once you have done this, fill a container with water and store it in the refrigerator for drinking, cooking, and preparing baby formula throughout the day.
- If you do have a lead service line, flushing times can vary based on the length of your lead service line and the plumbing configuration in your home. The length of lead service lines varies considerably. Flushing for at least 3 – 5 minutes is recommended.

Use cold water for drinking, cooking, and preparing baby formula. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.

Look for alternative sources or treatment of water. You may want to consider purchasing bottled water or a water filter that is certified to remove "total lead".

Clean and remove any debris from faucet aerators on a regular basis.

Do not boil water to remove lead. Boiling water will not reduce lead.

Purchase lead-free faucets and plumbing components.

Remove the entire lead service line.

Test your water for lead. Call us at: _____ to find out how to get your water tested for lead.

While we do not do the testing, we can provide a list of laboratories certified to do the testing. Laboratories will send you the bottles for sample collection. Please note that we are not affiliated with the laboratories and they will charge you a fee.

- If test results indicate a lead level above 15 ug/L, bottled water should be used by pregnant women, breast-feeding women, young children, and formula-fed infants.



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, CORPS OF ENGINEERS
231 SOUTH LA SALLE STREET
CHICAGO, ILLINOIS 60604-1437

October 13, 2021

Operations Division
Regulatory Branch
LRC-2018-00102

SUBJECT: Culvert Replacement Over Flag Hole Creek, Indian Boundary Rd, Plainfield, Will County, Illinois (Latitude 41.600517, Longitude -88.232332)

Scott Threewitt
Village of Plainfield, Dept of Public Works
14400 Coil Plus Drive
Plainfield, Illinois 60544

Dear Mr. Threewitt:

This office has verified that your proposed activity complies with the terms and conditions of Regional Permit 3 (Transportation Projects) and the General Conditions for all activities authorized under the Regional Permit Program.

This verification expires three (3) years from the date of this letter and covers only your activity as described in your notification and as shown on the plans entitled “State of Illinois Department of Transportation – Plans for Proposed Federal Aid Highway – TR Route 0052 (Indian Boundary Road) Over Spring Hole Creek – Section 17-00064-00-BR – Project No. Y36A(120) – Bridge Replacement – Village of Plainfield – Will County – C-91-197-17,” prepared by Strand Associates, dated 10/8/2021. Caution must be taken to prevent construction materials and activities from impacting waters of the United States beyond the scope of this authorization. If you anticipate changing the design or location of the activity, you should contact this office to determine the need for further authorization.

Please be aware that the activity may not be completed until you submit the following information to our office:

1. Prior to the commencement of any work, you shall receive a determination by Will/South Cook Soil and Water Conservation District (SWCD) that the Soil Erosion and Sediment Control (SESC) plans meet technical standards.

Upon receipt of the above information, the activity may be completed without further authorization from this office provided the activity is conducted in compliance with the terms and conditions of the RPP, including conditions of water quality certification issued under Section 401 of the Clean Water Act by the Illinois Environmental Protection Agency (IEPA). If the design, location, or purpose of the project is changed, you should contact this office to

determine the need for further authorization

The following special conditions are a requirement of your authorization:

1. This authorization is contingent upon implementing and maintaining soil erosion and sediment controls in a serviceable condition throughout the duration of the project. You shall comply with the Will/South Cook SWCD written and verbal recommendations regarding the soil erosion and sediment control (SESC) plan and the installation and maintenance requirements of the SESC practices on-site.
 - a. You shall schedule a preconstruction meeting with SWCD to discuss the SESC plan and the installation and maintenance requirements of the SESC practices on the site. You shall contact the SWCD at least 10 calendar days prior to the preconstruction meeting so that a representative may attend.
 - b. You shall notify the SWCD of any changes or modifications to the approved plan set. Field conditions during project construction may require the implementation of additional SESC measures. If you fail to implement corrective measures, this office may require more frequent site inspections to ensure the installed SESC measures are acceptable.
 - c. Prior to commencement of any in-stream work, you shall submit construction plans and a detailed narrative to the SWCD that disclose the contractor's preferred method of cofferdam and dewatering method. Work in the waterway shall NOT commence until the SWCD notifies you, in writing, that the plans have been approved.
2. Please note that this site is within the aboriginal homelands of several American Indian Tribes. If any cultural, archaeological or historical resources are unearthed during activities authorized by this permit, work in that area must be stopped immediately and the Corps, State Historic Preservation Office and/or Tribal Historic Preservation Office must be contacted for further instruction. The Corps will initiate the coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing on the National Register of Historic Places.
3. You are responsible for all work authorized herein and for ensuring that all contractors are aware of the terms and conditions of this authorization.
4. A copy of this authorization must be present at the project site during all phases of construction.
5. You shall notify this office of any proposed modifications to the project, including revisions to any of the plans or documents cited in this authorization. You must receive approval from this office before work affected by the proposed modification is performed.
6. You shall notify this office prior to the transfer of this authorization and liabilities associated with compliance with its terms and conditions.

7. Work in the waterway should be timed to take place during low or no-flow conditions. Low flow conditions are flow at or below the normal water elevation.
8. The plan will be designed to allow for the conveyance of the 2-year peak flow past the work area without overtopping the cofferdam. The Corps has the discretion to reduce this requirement if documented by the applicant to be infeasible or unnecessary.
9. Water shall be isolated from the in-stream work area using a cofferdam constructed of non-erodible materials (steel sheets, aqua barriers, rip rap and geotextile liner, etc.). Earthen cofferdams are not permissible.
10. The cofferdam must be constructed from the upland area and no equipment may enter flowing water at any time. If the installation of the cofferdam cannot be completed from shore and access is needed to reach the area to be coffered, other measures, such as the construction of a causeway, will be necessary to ensure that equipment does not enter the water. Once the cofferdam is in place and the isolated area is dewatered, equipment may enter the coffered area to perform the required work.
11. If bypass pumping is necessary, the intake hose shall be placed on a stable surface or floated to prevent sediment from entering the hose. The bypass discharge shall be placed on a non-erodible, energy dissipating surface prior to rejoining the stream flow and shall not cause erosion. Filtering of bypass water is not necessary unless the bypass water has become sediment-laden as a result of the current construction activities.
12. During dewatering of the coffered work area, all sediment-laden water must be filtered to remove sediment. Possible options for sediment removal include baffle systems, anionic polymers systems, dewatering bags, or other appropriate methods. Water shall have sediment removed prior to being re-introduced to the downstream waterway. A stabilized conveyance from the dewatering device to the waterway must be identified in the plan. Discharge water is considered clean if it does not result in a visually identifiable degradation of water clarity.
13. The portion of the side slope that is above the observed water elevation shall be stabilized as specified in the plans prior to accepting flows. The substrate and toe of slope that has been disturbed due to construction activities shall be restored to proposed or pre-construction conditions and fully stabilized prior to accepting flows.

This verification does not obviate the need to obtain all other required Federal, state, or local approvals before starting work. Please note that Section 401 Water Quality Certification has been issued by IEPA for this RP. If you have any questions regarding Section 401 certification, please contact Morgan Holthaus at IEPA Division of Water Pollution Control, Permit Section #15, by telephone at (217) 785-6936.

Once you have completed the authorized activity, please sign and return the enclosed compliance certification. If you have any questions, please contact Julie Rimbault of my staff by telephone at (312) 846-5542, or email at Julie.C.Rimbault@usace.army.mil.

Sincerely,

Diedra L. McLaurin

Diedra McLaurin
Team Lead, Regulatory Branch

Enclosures

Copy Furnished:

Will-South Cook SWCD (Dan Jay)
Strand Associates (Marc Grigas)



**PERMIT COMPLIANCE
CERTIFICATION**

Permit Number: LRC-2018-00102
Permittee: Scott Threewitt
Village of Plainfield, Dept of Public Works
Date: October 13, 2021

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of said permit and if applicable, compensatory wetland mitigation was completed in accordance with the approved mitigation plan.¹

PERMITTEE

DATE

Upon completion of the activity authorized by this permit and any mitigation required by the permit, this certification must be signed and returned to the following address:

U.S. Army Corps of Engineers
Chicago District, Regulatory Branch
231 South LaSalle Street, Suite 1500
Chicago, Illinois 60604-1437

Please note that your permitted activity is subject to compliance inspections by Corps of Engineers representatives. If you fail to comply with this permit, you may be subject to permit suspension, modification, or revocation.

¹ If compensatory mitigation was required as part of your authorization, you are certifying that the mitigation area has been graded and planted in accordance with the approved plan. You are acknowledging that the maintenance and monitoring period will begin after a site inspection by a Corps of Engineers representative or after thirty days of the Corps' receipt of this certification. You agree to comply with all permit terms and conditions, including additional reporting requirements, for the duration of the maintenance and monitoring period.



US Army Corps of Engineers®
Chicago District

**GENERAL CONDITIONS
APPLICABLE TO THE 2017 REGIONAL PERMIT PROGRAM
AS REVISED JANUARY 10, 2020**

The permittee must comply with the terms and conditions of the Regional Permits and the following general conditions for all activities authorized under the RPP:

1. State 401 Water Quality Certification - Water quality certification under Section 401 of the Clean Water Act may be required from the Illinois Environmental Protection Agency (IEPA). The District may consider water quality, among other factors, in determining whether to exercise discretionary authority and require an Individual Permit. Please note that Section 401 Water Quality Certification is a requirement for projects carried out in accordance with Section 404 of the Clean Water Act. Projects carried out in accordance with Section 10 of the Rivers and Harbors Act of 1899 do not require Section 401 Water Quality Certification

On February 16, 2017, the IEPA granted Section 401 certification, with conditions, for all Regional Permits, except for activities in certain waterways noted under RPs 4 and 8. The following conditions of the certification are hereby made conditions of the RPP:

1. The applicant must not cause:
 - a) a violation of applicable water quality standards of the Illinois Pollution Control Board Title 35, Subtitle C: Water Pollution Rules and Regulations;
 - b) water pollution defined and prohibited by the Illinois Environmental Protection Act;
 - c) interference with water use practices near public recreation areas or water supply intakes;
 - d) a violation of applicable provisions of the Illinois Environmental Protection Act.
2. The applicant must provide adequate planning and supervision during the project construction period for implementing construction methods, processes and cleanup procedures necessary to prevent water pollution and control erosion.
3. Except as allowed under condition 7, 9 and 10, any spoil material excavated, dredged or otherwise produced must not be returned to the waterway but must be deposited in a self-contained area in compliance with all state statutes, regulations and permit requirements with no discharge to waters of the State unless a permit has been issued by the Illinois EPA. Any backfilling must be done with clean material and placed in a manner to prevent violation of applicable water quality standards.
4. All areas affected by construction must be mulched and seeded as soon after construction as possible. The applicant shall undertake necessary measures and procedures to reduce erosion during construction. Interim measures to prevent erosion during construction shall be taken and may include the installation of staked straw bales, sedimentation basins and temporary mulching. All construction within the waterway shall be constructed during zero or low flow conditions. The applicant shall be responsible for obtaining a NPDES Storm Water Permit prior to initiating construction if the construction activity associated with the project will result in the disturbance of (1) one or more acres, total land area. An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Illinois EPA's Division of Water Pollution Control, Permit Section.
5. The applicant shall implement erosion control measures consistent with the "Illinois Urban Manual" (IEPA/USDA, NRCS; 2016).
6. The applicant is advised that the following permits(s) must be obtained from the Illinois EPA: The applicant must obtain permits to construct sanitary sewers, water mains and related facilities prior to construction.
7. Backfill used in stream crossing trenches shall be predominantly sand or larger size material, with less than 20% passing a #230 U.S. sieve.
8. Any channel relocation shall be constructed under dry conditions and stabilized to prevent erosion prior to the diversion of flow.
9. Backfill used within trenches passing through surface waters of the State, except wetland areas, shall be clean course aggregate, gravel or other material which will not cause siltation, pipe damage during placement, or chemical corrosion in place. Excavated material may be used only if:
 - a) particle size analysis is conducted and demonstrates the material to be at least 80% sand or larger size material, using #230 U.S. sieve; or

- b) excavation and backfilling are done under dry conditions.
10. Backfill used within trenches passing through wetland areas shall consist of clean material which will not cause siltation, pipe damage during placement, or chemical corrosion in place. Excavated material shall be used to the extent practicable, with the upper six (6) to twelve (12) inches backfilled with the topsoil obtained during trench excavation.
 11. Any applicant proposing activities in a mined area or previously mined area shall provide to the IEPA a written determination regarding the sediment and materials used which are considered “acid-producing material” as defined in 35 Il. Adm. Code, Subtitle D. If considered “acid-producing material,” the applicant shall obtain a permit to construct pursuant to 35 Il. Adm. Code 404.101.
 12. Asphalt, bituminous material and concrete with protruding material such as reinforcing bar or mesh shall not be 1) used for backfill, 2) placed on shorelines/stream banks, or 3) placed in waters of the State.
 13. Applicants that use site dewatering techniques in order to perform work in waterways for construction activities approved under Regional Permits 1 (Residential, Commercial and Institutional Developments), 2 (Recreation Projects), 3 (Transportation Projects), 7 (Temporary Construction Activities), 9 (Maintenance), or 12 (Bridge Scour Protection) shall maintain flow in the stream during such construction activity by utilizing dam and pumping, fluming, culverts or other such techniques.
 14. In addition to any action required of the Regional Permit 13 (Cleanup of Toxic and Hazardous Materials Projects) with respect to the “Notification” General Condition 23, the applicant shall notify the Illinois EPA Bureau of Water, of the specific activity. This notification must include information concerning the orders and approvals that have been or will be obtained from the Illinois EPA Bureau of Land (BOL) for all cleanup activities under BOL jurisdiction, or for which authorization or approval is sought from BOL for no further remediation. This Regional Permit is not valid for activities that do not require or will not receive authorization or approval from the BOL.
 15. The applicant shall implement Best Management Practices (BMPs) to protect water quality, preserve natural hydrology and minimize the overall impacts to aquatic resources during and after construction. If the project involves a water with an approved Total Maximum Daily Load (TMDL) allocation for any parameter, measures which ensure consistency with the assumption and requirements of the TMDL shall be included. TMDL program information and water listings are available at <https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/default.aspx>. If the project involves and impaired water listed on the Illinois Environmental Protection Agency’s Section 303(d) list for suspended solids, turbidity, or siltation, measures designed for at least a 25-year, 24-hour rainfall event shall be incorporated. Impaired waters are identified at <https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/303d-list.aspx>.
 16. Earthen granular fill used for construction of temporary structures in waters of the State shall have less than 20% passing a #230 U.S. sieve.
 17. The use of directional drilling to install utility pipelines below surface waters of the State is hereby certified provided that:
 - a) All pits and other construction necessary for the directional drilling process are located outside of surface waters of the State;
 - b) All drilling fluids shall be adequately contained such that they cannot cause a discharge to surface waters of the State. Such fluids shall be managed such that they are not discharged to waters of the State and disposed of appropriately in accordance with the regulations at 35 Il. Adm. Code Subtitle G.
 - c) Erosion and sediment control is provided with Conditions 2, 4, and 5.

2. Illinois Coastal Management Program - Any non-federal entity applying to the Corps for an Individual Permit or a Letter of Permission for a project located within the boundary of the Illinois Coastal Management Program (ICMP), including waters of Lake Michigan, is required to submit a Federal Consistency Determination confirmation from the Illinois Coastal Management Program as part of the permit review process.

On February 18, 2017, the Illinois Department of Natural Resources, Coastal Management Program granted the Federal Consistent Determination for the Regional Permit Program. This determination is confirmation that the activities covered under the Regional Permit Program are consistent with the policies of the ICMP.

PDF maps of the Illinois Coastal Management Program’s Zone Boundaries can be found at the bottom of the page at www.dnr.illinois.gov/cmp/Pages/boundaries.aspx and instructions on requesting an ICMP Federal Consistency Determination can be found at www.dnr.illinois.gov/cmp/Documents/ICMPFederalConsistencyReviewProcedures.pdf.

3. Threatened and Endangered Species –

- a) For applications where a Federal agency other than the District is designated as the lead agency, the designated lead agency shall follow agency specific procedures for complying with the requirements of Section 7 of the Endangered Species Act of 1973 (Act). Federal permittees must provide the District with the following documentation to demonstrate compliance with those requirements: the species list, your effects determination for each species, and the rationale for your effects determination for each species.
- b) For non-Federal permittees, if the District determines that the activity may affect Federally listed species or critical habitat, the District must initiate section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) in accordance with the Endangered Species Act of 1973, as amended (Act). Applicants must provide additional information that would enable the District to conclude that the proposed action will have no effect on Federally listed species.

The application packet must indicate whether resources (species, their suitable habitats, or critical habitat) listed or designated under the Act, may be present within areas affected (directly or indirectly) by the proposed project. Applicants must provide a section 7 species list for the action area using the on-line process at the USFWS website. You can access "U.S. Fish and Wildlife Service Endangered Species Program of the Upper Midwest" website at www.fws.gov/midwest/Endangered. Click on the section 7 Technical Assistance green shaded box in the lower right portion of the screen and follow the instructions to completion. Review all documentation pertaining to the species list and provide your effects determination for each species along with the rationale for your effects determination for each species to this office for review.

If no species, their suitable habitats, or critical habitats are listed, then a “no effect” determination can be made, and section 7 consultation is not warranted. If species or critical habitat appear on the list or suitable habitat is present within the action area, then a biological assessment or biological evaluation will need to be completed to determine if the proposed action will have “no effect” or “may affect” the species or suitable habitat. The District must request initiation of section 7 consultation with the USFWS upon agreement with the applicant on the effect determinations in the biological assessment or biological evaluation.

If the issues are not resolved, the analysis of the situation is complicated, or impacts to listed species or critical habitat are found to be greater than minimal, the District will consider reviewing the project under the Individual Permit process.

Projects in Will, DuPage, or Cook Counties that are located in the recharge zones for Hine’s emerald dragonfly critical habitat units may be reviewed under the RPP, with careful consideration due to the potential impacts to the species. All projects reviewed that are located within 3.25 miles of a critical habitat unit will be reviewed under Category II of the RPP. Please visit the following website for the locations of the Hine’s emerald dragonfly critical habitat units in Illinois. www.fws.gov/midwest/endangered/insects/hed/FRHinesFinalRevisedCH.html

4. Historic Properties - In cases where the District determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity may require an Individual Permit. A determination of whether the activity may be authorized under the RPP instead of an Individual Permit will not be made until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

Federal permittees designated as the lead agency shall follow agency specific procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the District with the appropriate documentation to demonstrate compliance with those requirements.

Non-Federal permittees must include notification to the District if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the permit application must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)).

When reviewing permit submittals, the District will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. Based on the information submitted and these efforts, the District will determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified the District,

the non-Federal applicant must not begin the activity until notified by the District either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

The District must take into account the effects on such properties in accordance with 33 CFR Part 325, Appendix C, and 36 CFR 800. If all issues pertaining to historic properties have been resolved through the consultation process to the satisfaction of the District, Illinois State Historic Preservation Officer (SHPO) and Advisory Council on Historic Preservation, the District may, at its discretion, authorize the activity under the RPP.

Applicants are encouraged to obtain information on historic properties from the SHPO and the National Register of Historic Places at the earliest stages of project planning. For information, contact:

Illinois State Historic Preservation Office
Illinois Department of Natural Resources
Attn: Review & Compliance
Old State Capital
1 Natural Resources Way
Springfield, IL 62702
(217) 782-4836
<https://www2.illinois.gov/dnrhistoric/Pages/default.aspx>

If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity, you must immediately notify this office of what you have found, and to the maximum extent practicable, stop activities that would adversely affect those remains and artifacts until the required coordination has been completed. The District will initiate the Federal, Tribal and State coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

5. Soil Erosion and Sediment Control - Measures must be taken to control soil erosion and sedimentation at the project site to ensure that sediment is not transported to waters of the U.S. during construction. Soil erosion and sediment control measures must be implemented before initiating any clearing, grading, excavating or filling activities. All temporary and permanent soil erosion and sediment control measures must be maintained throughout the construction period and until the site is stabilized. All exposed soil and other fills, and any work below the ordinary high water mark must be permanently stabilized at the earliest practicable date.

Applicants are required to prepare a soil erosion and sediment control (SESC) plan including temporary best management practices (BMPs) to be implemented during construction. It is recommended that the plan be designed in accordance with the Illinois Urban Manual, current edition (www.aiswcd.org/illinois-urban-manual). Practice standards and specifications for measures outlined in the soil erosion and sediment control plans should follow the latest edition of the "Illinois Urban Manual: A Technical Manual Designed for Urban Ecosystem Protection and Enhancement." Additional SESC measures not identified in the Illinois Urban Manual may also be utilized upon District approval.

At the District's discretion, an applicant may be required to submit the SESC plan to the local Soil and Water Conservation District (SWCD) or the Lake County Stormwater Management Commission (SMC) for review. When the District requires submission of an SESC plan, the following applies: An activity may not commence until the SESC plan for the project site has been approved; The SWCD/SMC will review the plan and provide a written evaluation of its adequacy; A SESC plan is considered acceptable when the SWCD/SMC has determined that it meets technical standards. Once a determination has been made, the authorized work may commence unless the SWCD/SMC has requested that they be notified prior to commencement of the approved plans. The SWCD/SMC may elect to attend pre-construction meetings with the permittee and conduct inspections during construction to determine compliance with the plans. Applicants are encouraged to begin coordinating with the appropriate SWCD/SMC office at the earliest stages of project planning. For information, contact:

Kane-DuPage SWCD
2315 Dean Street, Suite 100
St. Charles, IL 60174
(630) 584-7960 ext.3
www.kanedupageswcd.org

Lake County SMC
500 W. Winchester Rd, Suite 201
Libertyville, IL 60048
(847) 377-7700
www.lakecountyil.gov/stormwater

McHenry-Lake County SWCD
1648 South Eastwood Dr.
Woodstock, IL 60098
(815) 338-0099 ext.3
www.mchenryswcd.org

North Cook County SWCD
640 Cosman Rd
Elk Grove Village, IL 60007

Will/South Cook SWCD
1201 S. Gougar Rd
New Lenox, IL 60451

6. Total Maximum Daily Load - For projects that include a discharge of pollutant(s) to waters for which there is an approved Total Maximum Daily Load (TMDL) allocation for any parameter, the applicant must develop plans and BMPs that are consistent with the assumptions and requirements in the approved TMDL. The applicant must incorporate into their plans and BMPs any conditions applicable to their discharges necessary for consistency with the assumptions and requirements of the TMDL within any timeframes established in the TMDL. The applicant must carefully document the justifications for all BMPs and plans, and install, implement and maintain practices and BMPs that are consistent with all relevant TMDL allocations and with all relevant conditions in an implementation plan. Information regarding the TMDL program, including approved TMDL allocations, can be found at the following website: www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/default.aspx

7. Floodplain - Discharges of dredged or fill material into waters of the United States within the 100-year floodplain (as defined by the Federal Emergency Management Agency) resulting in permanent above-grade fills must be avoided and minimized to the maximum extent practicable. When such an above-grade fill would occur, the applicant may need to obtain approval from the Illinois Department of Natural Resources, Office of Water Resources, (IDNR-OWR) which regulates activities affecting the floodway and the local governing agency (e.g., Village or County) with jurisdiction over activities in the floodplain. Compensatory storage may be required for fill within the floodplain. Applicants are encouraged to obtain information from the IDNR-OWR and the local governing agency with jurisdiction at the earliest stages of project planning. For information on floodway construction, contact:

IDNR/OWR
2050 Stearns Road
Bartlett, IL 60103
(847) 608-3100
www.dnr.illinois.gov/WaterResources/

For information on floodplain construction, please contact the local government and/or the Federal Emergency Management Agency. Pursuant to 33 CFR 320.4(j), the District will consider the likelihood of the applicant obtaining approval for above-ground permanent fills in floodplains in determining whether to issue authorization under the RPP.

8. Navigation - Regulated activities may not cause more than a minimal adverse effect on navigation. Safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities within navigable waters of the United States. The permittee understands and agrees that if future operations by the United States require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work will cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim will be made against the United States on account of any such removal or alteration.

9. Proper Maintenance - Authorized structures or fill must be properly maintained, including that necessary to ensure public safety.

10. Aquatic Life Movements - Regulated activities may not substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including species that normally migrate through the area, unless the activity's primary purpose is to impound water.

11. Equipment - Soil disturbance and compaction in regulated areas must be minimized through the use of low ground pressure equipment, matting for heavy equipment, or other measures as approved by the District.

12. Wild and Scenic Rivers - Regulated activities may not occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status. Information on Wild and Scenic Rivers may be obtained from the appropriate land management agency in the area, such as the National Park Service and the U.S. Forest Service.

13. Tribal Rights - Regulated activities or their operation may not impair reserved Tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

14. Water Supply Intakes - Discharges of dredged or fill material may not occur in the proximity of a public water supply intake except where the discharge is for repair of the public water supply intake structures or adjacent bank stabilization.
15. Shellfish Production - Discharges of dredged or fill material may not occur in areas of concentrated shellfish production.
16. Suitable Material - Discharges of dredged or fill material may not consist of unsuitable material. Material discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act). Unsuitable material includes trash, debris, vehicle parts, asphalt, and creosote treated wood.
17. Spawning Areas - Discharges in spawning areas during spawning seasons must be avoided to the maximum extent practicable.
18. Obstruction of High Flows - Discharges must not permanently restrict or impede the passage of normal or expected high flows. All crossings must be culverted, bridged or otherwise designed to prevent the restriction of expected high water flows and designed so as not to impede low water flows or the movement of aquatic organisms.
19. Impacts From Impoundments - If the discharge creates an impoundment of water, adverse impacts on aquatic resources caused by the accelerated passage of water and/or the restriction of its flow must be avoided to the maximum extent practicable.
20. Waterfowl Breeding Areas - Discharges into breeding areas utilized by migratory waterfowl must be avoided to the maximum extent practicable.
21. Removal of Temporary Fills - Temporary fill material must be removed in its entirety and the affected area returned to pre-existing condition.
22. Mitigation - All appropriate and practicable steps must first be taken to avoid and minimize impacts to aquatic resources. For unavoidable impacts, compensatory mitigation is required to replace the loss of wetland, stream, and/or other aquatic resource functions (33 CFR 332). The proposed compensatory mitigation must utilize a watershed approach and fully consider the ecological needs of the watershed. Where an appropriate watershed plan is available, mitigation site selection should consider recommendations in the plan. The applicant must describe in detail how the mitigation site was chosen and will be developed, and be based on the specific resource need of the impacted watershed. Permit applicants are responsible for proposing an appropriate compensatory mitigation option to offset unavoidable impacts. However, the District is responsible for determining the appropriate form and amount of compensatory mitigation required when evaluating compensatory mitigation options and determining the type of mitigation that would be environmentally preferable. In making this determination, the District will assess the likelihood for ecological success and sustainability, the location of the compensation site relative to the impact site, and their significance within the watershed. Methods of providing compensatory mitigation include aquatic resource restoration, establishment, enhancement, and in certain circumstances, preservation. Compensatory mitigation will be accomplished by establishing a minimum ratio of 1.5 acres of mitigation for every 1.0 acre of impact to waters of the U.S. Furthermore, the District has the discretion to require additional mitigation to ensure that the impacts are no more than minimal. Further information is available at www.lrc.usace.army.mil/Missions/Regulatory/Illinois/Mitigation.aspx.
23. Notification - The applicant must provide written notification (i.e., a complete application) for a proposed activity to be verified under the RPP prior to commencing a proposed activity. The District's receipt of the complete application is the date when the District receives all required notification information from the applicant (see below). If the District informs the applicant within 60 calendar days that the notification is incomplete (i.e., not a complete application), the applicant must submit to the District, in writing, the requested information to be considered for review under the Regional Permit Program. A new 60 day review period will commence when the District receives the requested information. Applications that involve unauthorized activities that are completed or partially completed by the applicant are not subject to the 60-day review period. Applications may be either sent to ChicagoRequests@usace.army.mil or mailed to our office: USACE Regulatory Branch, 231 South LaSalle Street, Suite 1500, Chicago, Illinois 60604.

For all activities, notification must include:

- a. A detailed narrative of the proposed activity describing all work to be performed, a clear project purpose and need statement, the Regional Permit(s) to be used for the activity, the area (in acres) of permanent and temporary fills proposed in each water of the U.S., and a statement that the terms and conditions of the RPP will be followed. For projects with impacts to multiple aquatic resources, provide a table identifying impact types and amounts.

- b. A completed application form signed by the applicant or agent. The application form is available at www.lrc.usace.army.mil/Missions/Regulatory/Illinois/. If the applicant does not sign the application form, notification must include a signed, written statement from the applicant designating the agent as their representative.
- c. A delineation of waters of the U.S., including wetlands, for the project area, and for areas adjacent to the project site (off-site wetlands must be identified through the use of reference materials including review of local wetland inventories, soil surveys, and the most recent available aerial photography), must be prepared in accordance with the current U.S. Army Corps of Engineers methodology (www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/reg_supp.aspx) and generally conducted during the growing season.* The District's wetland delineation standards are available at www.lrc.usace.army.mil/Portals/36/docs/regulatory/pdf/Delineations.pdf. For sites supporting wetlands, the delineation must include a Floristic Quality Assessment ([Flora of the Chicago Region: A Floristic and Ecological Synthesis](#). Wilhelm and Rericha, 2017). The delineation must also include information on the occurrence of any high-quality aquatic resources (see Appendix A), and a listing of waterfowl, reptile and amphibian species observed while at the project area. The District reserves the right to exercise judgment when reviewing submitted wetland delineations. Flexibility of these requirements may be allowed by the District on a case-by-case basis only.
- d. A street map showing the location of the project area.
- e. Latitude and longitude for the project in decimal degrees format (for example 41.878639N, -87.631212W).
- f. Preliminary engineering drawings sized 11" by 17" (full-sized may be requested by the project manager) showing all aspects of the proposed activity and the location of waters of the U.S. to be impacted and not impacted. The plans must include grading contours, proposed and existing structures such as buildings footprints, roadways, road crossings, stormwater management facilities, utilities, construction access areas and details of water conveyance structures. The plans must also depict buffer areas, outlots or open space designations, best management practices, deed restricted areas and restoration areas, if required under the specific RP.
- g. Submittal of soil erosion and sediment control (SESC) plans that identify all SESC measures to be utilized during construction of the project.
- h. A determination whether resources (species, their suitable habitats, or critical habitat) listed or designated under the Endangered Species Act of 1973, as amended, may be present within areas affected (directly or indirectly) by the proposed project. Applicants must provide a section 7 species list for the action area using the on-line process at the USFWS website. You can access "U.S. Fish and Wildlife Service Endangered Species Program of the Upper Midwest" website at www.fws.gov/midwest/Endangered. Click on the section 7 Technical Assistance green shaded box in the lower right portion of the screen and follow the instructions to completion. Review all documentation pertaining to the species list and provide your effects determination for each species along with the rationale for your effects determination for each species to this office for review.

In the event there are no species, their suitable habitats, or critical habitats within areas affected (directly or indirectly) by the proposed project, then a "no effect" determination can be made and section 7 consultation is not warranted. If species or critical habitat appear on the list, or suitable habitat is present within the action area, then a biological assessment or biological evaluation will need to be completed to determine if the proposed action will have a "no effect" or a "may affect" determination on the species or suitable habitat. The District will request initiation of section 7 consultation with the USFWS upon agreement with the applicant on the effects determinations in the biological assessment or biological evaluation. If the issues are not resolved, the analysis of the situation is complicated, or impacts to listed species or critical habitat are found to be greater than minimal, the District will consider reviewing the project under the Individual Permit process.

- i. A determination of the presence or absence of any State threatened or endangered species. Please contact the Illinois Department of Natural Resources (IDNR) to determine if any State threatened and endangered species could be in the project area. You can access the IDNR's Ecological Compliance Assessment Tool (EcoCAT) at the following website: dnr.illinois.gov/EcoPublic/. For the first general information question, select "To obtain information on Illinois T&E species or INAI sites for federal agency actions" and select "U.S. Army Corps of Engineers" from the drop down menu. Once the EcoCAT and consultation process is complete, forward all resulting information to this office for

* If a wetland delineation is conducted outside of the growing season, the District will determine on a case-by-case basis whether sufficient evidence is available to make an accurate determination. If the District finds that the delineation lacks sufficient evidence, the application will not be considered complete until the information is provided. This may involve re-delineating the project site during the growing season.

consideration. The report must also include recommended methods as required by the IDNR for minimizing potential adverse effects of the project.

- j. A statement about the knowledge of the presence or absence of historic properties, which includes properties listed, or properties eligible to be listed in the National Register of Historic Places. The permittee must provide all pertinent correspondence documenting compliance. Initial documentation required for the Illinois State Historic Preservation Officer (ILSHPO) is located here: <https://www2.illinois.gov/dnrhistoric/preserve/pages/resource-protection.aspx>. The Historic and Architectural Resources Geographic Information System (HARGIS) at <http://gis.hpa.state.il.us/hargis/> is the public portal to Illinois' historic buildings, structures, sites, objects, and districts. This database contains properties that have been listed in the National Register of Historic Places, determined eligible for listing, or surveyed without a determination.
- k. Where an appropriate watershed plan is available, the applicant must address in writing how the proposed activity is aligned with the relevant water quality, hydrologic, and aquatic resource protection recommendations in the watershed plan. A list of watershed plans is available at www.lrc.usace.army.mil/Missions/Regulatory/Illinois/WatershedPlans.aspx.
- l. A discussion of measures taken to avoid and/or minimize impacts to aquatic resources on the project site.
- m. A compensatory mitigation plan for all impacts to waters of the U.S. (if compensatory mitigation is required under the specific RP) in compliance with 33 CFR 332.
- n. A written narrative individually addressing each of the items listed under the specific RP(s) being requested.

For non-commercial and non-institutional projects (e.g. single-family home activities; bank stabilization, docks and piers, etc., the District may provide one or more "simple application checklist(s)" for applicants to use. If an applicant believes a project qualifies for use of such a checklist, they should provide the information required therein in the notification. The District will determine within 60 days whether the project is appropriate for use of the checklist; and if so, may determine that the application is complete if it includes all required information. If information is missing, or if more information is needed for a particular project (up to the requirements of this condition, listed above), the District will notify the applicant within 60 days of receipt of the notification, and the application will not be considered "complete" until such information is provided.

For Category II activities, the District will provide an Agency Request for Comments (ARC) which describes the proposed activity. The ARC will be sent to the USFWS, USEPA, state natural resource and water quality agencies, any consulting parties if a Section 106 NHPA consultation is included in the ARC, and the USCG for activities in Navigable Waters, for review and comment. The USEPA, USFWS, USCG, IEPA, and IDNR have ten (10) calendar days from the date of the ARC to contact the District and either provide comments or request an extension, not to exceed fifteen (15) calendar days. If a Section 106 consultation is included in the ARC, consulting parties (which include at a minimum the Illinois Historic Preservation Agency and interested Indian Tribes) have thirty (30) calendar days from the date of the ARC to provide comments. The District will fully consider agency comments received within the specified time frame. Additional entities may also be notified as needed, and these entities must provide their comments within 10 days of the ARC if they wish to respond. If the District grants a time extension to an agency with statutory consulting rights, all comments received within that extended time period will be considered.

If the District determines that the activity complies with the terms and conditions of the RPP and impacts on aquatic resources are minimal, the District will notify the applicant in writing and include special conditions if deemed necessary. If the District determines the impacts of the proposed activity are more than minimal, the District will notify the applicant that the project does not qualify for authorization

24. Compliance Certification - Any permittee who has received authorization under the RPP from the District must submit a signed certification stating that the authorized work has been completed. The certification will be forwarded by the District with the authorization letter and will include: a) a statement that the authorized work was done in accordance with the District's authorization, including any general or specific conditions; b) a statement that any required mitigation was completed in accordance with the permit conditions, and; c) the signature of the permittee certifying the completion of the work and mitigation.

25. Multiple use of Regional Permits - In any case where a Regional Permit is combined with any other Regional Permit to cover a single and complete project (except where prohibited under specific Regional Permits), the applicant must notify the District in accordance with General Condition 23. If multiple Regional Permits are used, the total impact may not exceed the maximum allowed by the Regional Permit with the greatest impact threshold.

In the event that one or more Regional Permit(s) are sought for a subsequent phase of a project, where one or more previous phase(s) have been previously authorized, the District retains the right to determine that the phase(s) were in fact a single and complete project. If the current or future phase(s) would together result in greater impacts than allowable under the RPP, the District may suspend and/or revoke the previous authorization(s) as appropriate, and proceed under the appropriate individual permit and/or enforcement process(es).

26. Other Restrictions - Authorization under the RPP does not obviate the need to obtain other Federal, State or local permits, approvals, or authorizations required by law nor does it grant any property rights or exclusive privileges, authorize any injury to the property or rights of others or authorize interference with any existing or proposed Federal project.

Approved by:

//ORIGINAL SIGNED/

Christopher T. Drew
Colonel, U.S. Army
District Commander

March 23, 2017

Date



US Army Corps of Engineers®
Chicago District

**CHICAGO DISTRICT
2017 REGIONAL PERMIT PROGRAM
REVISED JANUARY 10, 2020**

3. TRANSPORTATION PROJECTS

RP3 authorizes the construction or replacement of transportation projects, including roads, bridges, runways and taxiways, and railroads. Authorization under RP3 is subject to the General Conditions of the Regional Permit Program beginning on page 6 of this document. In addition, the following requirements must be addressed in writing and submitted with the notification:

- a. The impact to waters of the US must not exceed 1.0 acre for a single and complete project. For projects that impact greater than 0.10 acres of waters of the U.S., the permittee is required to provide compensatory mitigation.
- b. Projects that impact no more than 0.5 acres of waters of the U.S. will be processed under Category I.
- c. Projects that impact over 0.5 acres up to 1.0 acre of waters of the U.S., or cross a Section 10 waterway, will be processed under Category II (www.lrc.usace.army.mil/Missions/Regulatory/NavigableWaters.aspx).
- d. The discharge must be limited to the minimum width necessary to complete the authorized work.
- e. Crossings of waterways and/or wetlands must be culverted, bridged or otherwise designed to prevent the restriction of expected high water flows. The crossing must be designed as to not impede low water flows or the safe passage of fish and aquatic organisms. Additional conditions may be required for streams determined to be a high quality fisheries resource such as designing the bottom of the culvert to include “roughness” to reduce flow velocities. “Roughness” can include cemented-in stone, baffles, or the placement of rock along the bottom of the culvert and/or along the culvert wall. Embedding the culvert to a depth greater than 12 inches may also be required.
 - 1) An alternatives analysis must be prepared for perennial stream crossings where a culvert is proposed for a new crossing or to replace a bridge. The analysis must document why a bridged crossing would not be a practicable alternative. If use of a multiple-barrel pipe or multi-cell box culvert is proposed, document why a single pipe or box -culvert system cannot be utilized. For crossings over HQARs, arch span and bottomless culverts must be considered.

- 2) For culverts, the upstream and downstream invert must be embedded 6 to 12 inches below the streambed elevation. This will allow the natural substrate to colonize the structure's bottom, encourage fish movement, and maintain the existing channel slope. Culvert slope should match adjacent elevations. The width of the base flow culvert must be approximately equal to the average channel width to promote the safe passage of fish and other aquatic organisms. Culvert(s) must not permanently widen /constrict the channel or reduce/increase stream depth. Multiple pipe culverts may not be used to receive base flows.
 - 3) For all crossings, provide cross-sections of the stream in three locations: at the crossing, and upstream and downstream of the crossing. The crossing must be designed to maintain the width of the base flow channel through the project area.
- f. The permittee must clearly label the construction drawings to include limits of Waters of the U.S., existing and proposed grading contours, all structures associated with the installation of the crossing such as wing walls, rock and concrete protection measures, existing and proposed utilities lines, outfalls and associated structures. A detailed narrative must accompany the construction plans and describe all work to be performed as indicated on the plans.
 - g. All temporary construction activities must adhere to the requirements of items c through g of Regional Permit 7 (Temporary Construction Activities) and must be addressed in writing and submitted with the notification.
 - h. This permit may not be used to authorize structural bank stabilization methods such as retaining walls, gabion baskets, riprap, etc., other than those structures necessary to assure the integrity of the stream and stream bank immediately adjacent to the crossing.
 - i. To the greatest extent possible, the permittee must establish and maintain a protective upland buffer composed of native plants (or other appropriate vegetation approved by the District) within the right-of-way adjacent to all waters of the U.S.
 - j. The project must consider permanent, post-construction Best Management Practices (BMPs) to protect water quality, preserve natural hydrology and minimize the overall impacts of the project on aquatic resources. BMPs must be evaluated at the earliest planning stages of the project and prior to the purchase of new right-of-way (ROW). Please note that temporary SESC measures are not permanent BMPs.

To the greatest extent practicable, the activity must be designed such that surface water does not directly discharge into waters of the U.S. For each location where stormwater discharges towards a jurisdictional wetland or stream, provide a written narrative discussing opportunities to implement permanent BMPs. The type of BMPs proposed should be based on the scope of work, the change in impervious surface runoff discharging to the waters of the U.S., and the overall direct impacts to waters of the U.S. resulting from the proposed work.

Possible BMPs include, but are not limited to: preserving (i.e. not developing) existing permeable areas on site, native vegetated swales, permanent ditch checks, bioswales, infiltration trenches, naturalized detention basins, and mechanical stormwater treatment units. For bridge replacements, stormwater from the bridge deck should be directed to the roadside ditches and as far from the stream as practicable so that water does not directly enter the stream through drains in the bridge deck.

For discharges associated with maintenance projects, partial intersection improvements, and bridge/culvert replacements, native vegetated roadside ditches could be utilized as an appropriate BMP. For capacity improvement projects (intersection reconstructions, road widening) or for projects that impacts HQARs, the use of permanent ditch checks, bioswales or naturalized basins should be utilized. Compensatory storage basins may also be modified to provide water quality benefit. Appropriate BMPs will be determined during permit review.

Naturalized detention basin design should include:

- 1) Emergent vegetation in the bottoms of the wetland basins and along the periphery of wet bottom basins and side slopes vegetated in native prairie (traditional dry bottom basins are not approved BMPs).
- 2) Stilling basins at inlets
- 3) Design the basin to maximize the distance between inlet(s) and outlet(s)

A management and monitoring plan will be required on a case-by-case basis and will include performance standards such as the BMPs ability to function as designed, percent coverage of vegetation, stabilization of soils, and corrective measures to bring areas into compliance. For additional information, please refer to our BMP Maintenance & Monitoring (M&M) Guidelines: www.lrc.usace.army.mil/Portals/36/docs/regulatory/pdf/BMPMMG.pdf

- k. This permit does not authorize discharges into jurisdictional areas for temporary use of construction material or equipment storage.
- l. For a project site adjacent to a conservation area, the permittee must request a letter from the organization responsible for management of the area. The response letter must identify recommended measures to protect the area from impacts that may occur as a result of the development. A copy of the request and any response received from the organization must be submitted to the District with the notification.
- m. This permit cannot be used to authorize the installation of road crossings associated with residential, commercial or institutional developments.



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271 www.dnr.illinois.gov

JB Pritzker, Governor Colleen Callahan, Director

Office of Water Resources • 2050 West Stearns Road • Bartlett, Illinois 60103

October 19, 2021

SUBJECT: Permit No. NE2021051 Indian Boundary Road Culvert Replacement Spring Hole Creek Will County, Application No. N20210097

Scott Threewitt Village of Plainfield 14400 Coil Plus Road Plainfield, Illinois 60544

Dear Mr. Threewitt:

Enclosed is Illinois Department of Natural Resources, Office of Water Resources Permit No. NE2021051 authorizing the subject project. This permit does not supersede any other federal, state, or local authorizations that may be required for the project.

Please be advised that the Illinois Department of Natural Resources, Office of Realty & Capital Planning (ORCP) participates in the regulatory programs of the U.S. Army, Corps of Engineers (USACE) and may review this project if a USACE Section 10 or 404 permit is required. Issuance of a permit by the Office of Water Resources does not preclude ORCP's provision of comments and/or recommendations, primarily related to biological effects of the action, to the USACE and other federal agencies concerning your project

If any changes of the permitted work are found necessary, revised plans should be submitted promptly to this office for review and approval. Also, this permit expires on the date indicated in Condition (13). If you are unable to complete the work by that date, the permittee may make a written request for a time extension.

Please contact Mark Hoskins of my staff at (847) 608-3116 if you have any questions.

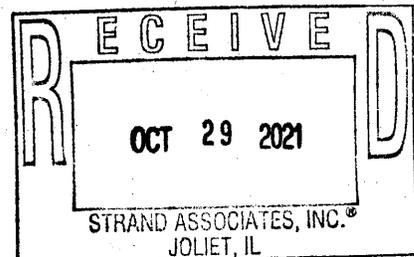
Sincerely,

Handwritten signature of William T. Boyd

William T. Boyd, P.E. Chief, Northeastern Illinois Regulatory Programs Section

WTB/MH: Enclosure

cc: Chicago District, U.S. Army Corps of Engineers Marc Grigas, Strand Associates, Inc.





PERMIT NO. NE2021051
DATE: October 19, 2021

State of Illinois
Department of Natural Resources, Office of Water Resources

Permission is hereby granted to:

Village of Plainfield
14400 Coil Plus Road
Plainfield, Illinois 60544

to replace existing culverts with twin 11 feet wide by 7 feet high concrete box culverts (one foot embedded), excavate two compensatory storage areas and armor the channel and the bank in the floodway of Spring Hole Creek in the Northwest Quarter of Section 17, Township 36 North, Range 9 East of the Third Principal Meridian in Will County,

in accordance with an application dated June 3, 2021, and the plans and specifications entitled:

PLANS FOR PROPOSED FEDERAL AID HIGHWAY, TR ROUTE 0052 (INDIAN BOUNDARY ROAD), OVER SPRING HOLE CREEK, VILLAGE OF PLAINFIELD, WILL COUNTY, SHEETS 1 AND 31 OF 88, UNDATED, SHEET 33 OF 88, DATED MAY 15, 2018, SHEET 57 OF 88, UNDATED, REVISED OCTOBER 8, 2021, AND SHEETS 76 AND 77 OF 88, UNDATED, ALL RECEIVED OCTOBER 12, 2021.

Examined and Recommended:

William T. Boyd, Chief
Northeastern IL Regulatory
Programs Section

Approval Recommended:

Loren Wobig, Director
Office of Water Resources

Approved:

Colleen Callahan, Director
Department of Natural Resources

This PERMIT is subject to the terms and special conditions contained herein.

THIS PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:

- 1) This permit is granted in accordance with the Rivers, Lakes and Streams Act "615 ILCS 5."
- 2) This permit does not convey title to the permittee or recognize title of the permittee to any submerged or other lands, and furthermore, does not convey, lease or provide any right or rights of occupancy or use of the public or private property on which the activity or any part thereof will be located, or otherwise grant to the permittee any right or interest in or to the property, whether the property is owned or possessed by the State of Illinois or by any private or public party or parties.
- 3) This permit does not release the permittee from liability for damage to persons or property resulting from the work covered by this permit, and does not authorize any injury to private property or invasion of private rights.
- 4) This permit does not relieve the permittee of the responsibility to obtain other federal, state or local authorizations required for the construction of the permitted activity; and if the permittee is required by law to obtain approvals from any federal or state agency to do the work, this permit is not effective until the federal and state approvals are obtained. If construction does not begin within two years of the date of this permit, the permittee must submit the project to EcoCat (<http://dnr.illinois.gov/EcoPublic/>) for an updated consultation under the Illinois Endangered Species Protection Act and the Illinois Natural Areas Preservation Act.
- 5) The permittee shall, at the permittee's own expense, remove all temporary piling, cofferdams, false work, and material incidental to the construction of the project. If the permittee fails to remove such structures or materials, the Department may have removal made at the expense of the permittee.
- 6) In public waters, if future need for public navigation or other public interest by the state or federal government necessitates changes in any part of the structure or structures, such changes shall be made by and at the expense of the permittee or the permittee's successors as required by the Department or other properly constituted agency, within sixty (60) days from receipt of written notice of the necessity from the Department or other agency, unless a longer period of time is specifically authorized.
- 7) The execution and details of the work authorized shall be subject to the review and approval of the Department. Department personnel shall have the right of access to accomplish this purpose.
- 8) Starting work on the activity authorized will be considered full acceptance by the permittee of the terms and conditions of the permit.
- 9) The Department in issuing this permit has relied upon the statements and representations made by the permittee; if any substantive statement or representation made by the permittee is found to be false, this permit will be revoked; and when revoked, all rights of the permittee under the permit are voided.
- 10) In public waters, the permittee and the permittee's successors shall make no claim whatsoever to any interest in any accretions caused by the activity.
- 11) In issuing this permit, the Department does not ensure the adequacy of the design or structural strength of the structure or improvement.
- 12) Noncompliance with the conditions of this permit will be considered grounds for revocation.
- 13) If the construction activity permitted is not completed on or before December 31, 2024 this permit shall cease and be null and void.



Leadership in Resource Management Since 1946

1201 S. Gougar Rd • New Lenox, IL 60451
(815) 462-3106 • Fax (815) 462-3176
www.will-scookswcd.org

Scott Threewitt
Village of Plainfield
Department of Public Works
14400 Coil Plus Dr.
Plainfield, IL 60544

March 7, 2022

RE: Erosion Control Plan Review/Approval
ACOE# LRC-2018-102
WSCSWCD# 21-603
Indian Boundary Rd.

Dear Mr. Threewitt:

We have reviewed the revised documents sent to our office on January 18, 2022 as they relate to erosion control measures pertaining to the above-mentioned project. The plan meets the technical standards of the Will-South Cook SWCD for SESC and is hereby Approved.

1. Please also add the following WSCSWCD notes:
 - a. Unless otherwise indicated, all vegetative and structural erosion and sediment control practices will be constructed to the standards and specifications in the Illinois Urban Manual, latest edition.
 - b. The Will / South Cook Soil and Water Conservation District (WSCSWCD) must be notified one week prior to the pre-construction meeting, one week prior to the commencement of land disturbing activities, and one week prior to the final inspection.
 - c. A copy of the approved erosion and sedimentation control plan shall be maintained at the site at all times.
 - d. Prior to commencing land-disturbing activities in areas other than indicated on these plans, a supplementary erosion control plan shall be submitted for review by the WSCSWCD.
 - e. The contractor is responsible for the installation of any additional erosion control measures necessary to prevent erosion and sedimentation as determined by the WSCSWCD.

- f. During dewatering operations, water will be filtered, or pumped into sediment basins or silt traps. Dewatering directly into streams, wetlands, field tiles, or stormwater structures is prohibited.
- g. It is the responsibility of the landowner and/or general contractor to inform any sub-contractor(s), who may perform work on this site/project, of the requirements in implementing and maintaining these erosion control plans and assure compliance with all applicable local, state, and federal regulations.

Please keep a copy of the approved documents on site at all times for review, upon request, by the Will-South Cook SWCD or any other authorized agency. Please also notify our office of the preconstruction meeting or at the start of work.

If you have any questions, please contact Lyn Nitz-Mercaeant at (815) 462-3106, ext. 3.

Sincerely,
Will / South Cook SWCD

A handwritten signature in cursive script that reads "Lyn Nitz-Mercaeant". The signature is written in black ink and is positioned centrally below the typed name.

Lyn Nitz-Mercaeant
CESSWI – in Training
Resource Conservationist

cc: Marc Grigas
Kathy Chernich

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Revised 2022

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

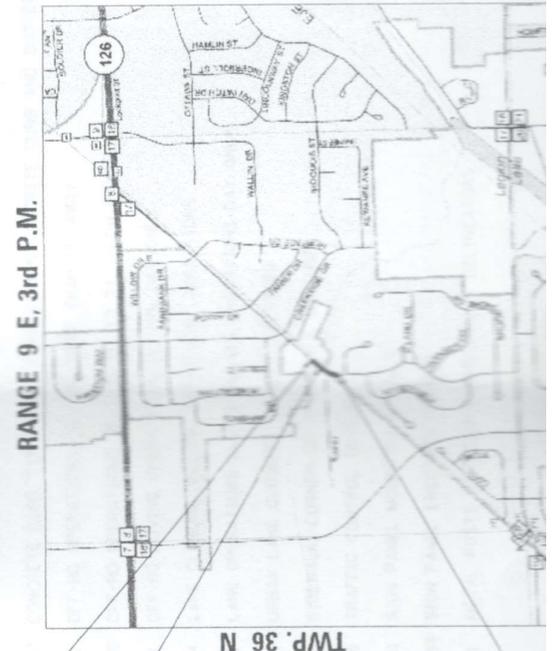
TR ROUTE 0052 (INDIAN BOUNDARY ROAD)
OVER SPRING HOLE CREEK
SECTION 17-00064-00-BR
CULVERT REPLACEMENT
PROJECT NO. Y36A(120)
VILLAGE OF PLAINFIELD
WILL COUNTY

*LRC-2018-102
WSC-21-603*



C-91-197-17

*Approved
Dynght Maceo
3/5/2022*



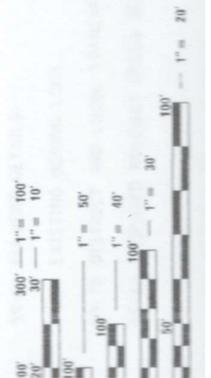
END PROJECT
STA. 20 + 88.51

S.N. 099-6757
STA 14 + 09.00

BEGIN PROJECT

INDEX OF SHEETS, SEE SHEET NO. 2
INDEX OF HIGHWAY STANDARDS, SEE SHEET NO. 2

DATA
BOUNDARY ROAD: LOCAL ROAD
SPEED LIMIT = 25 MPH
SPEED LIMIT = 30 MPH
DT = 1,950
DT = 3,700





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Source Site Certification by Owner or Operator for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-662

Revised in accordance with 35 Ill. Adm. Code 1100, as
amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by source site owners and operators to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1) (A), that soil (i) was removed from a site that is not potentially impacted property and is presumed to be uncontaminated soil and (ii) is within a pH range of 6.25 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Proposed Culvert Replacement Project Office Phone Number, if available: _____

Physical Site Location (Street, Road): Indian Boundary Road (Station 14+03)

City: Plainfield State: IL Zip Code: 60544

County: Will Township: Plainfield

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.60051 Longitude: -88.23232

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Village of Plainfield

Street Address: 24401 W. Lockport Street

PO Box: _____

City: Plainfield State: IL

Zip Code: 60544 Phone: (815) 436-7093

Contact: Allen Persons, Director of Public Works

Email, if available: _____

Name: Village of Plainfield

Street Address: 24401 W. Lockport Street

PO Box: _____

City: Plainfield State: IL

Zip Code: 60544 Phone: (815) 436-7093

Contact: Allen Persons, Director of Public Works

Email, if available: _____

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: Proposed Culvert Replacement Project

Latitude: 41.60051 Longitude: -88.23232

(Decimal Degrees)

(-Decimal Degrees)

Source Site Certification

III. Descriptions of Current and Past Uses of Source Site

Describe the current and past uses of the site and nearby properties.* Attach additional information as needed. The description must take into account, at a minimum, the following for the source site and for nearby property: (1) use of the properties for commercial or industrial purposes; (2) the use, storage or disposal of chemical or petroleum products in individual containers greater than 5 gallons or collectively more than 50 gallons; (3) the current or past presence of any storage tanks (above ground or underground); (4) any waste storage, treatment or disposal at the properties; (5) any reported releases or any environmental cleanup or removal of contaminants; (6) any environmental liens or governmental notification of environmental violations; (7) any contamination in a well that exceeds the Board's groundwater quality standards; (8) the use, storage, or disposal of transformers or capacitors manufactured before 1979; and (9) any fill dirt brought to the properties from an unknown source or site.

Number of pages attached: 9

The site is in a residential area. Surrounding properties are residential. No known chemical storage, waste storage, environmental liens, contaminated wells or any potentially impacted properties are present on or adjacent to construction area. Data review of IEPA databases did not indicate site contains PIPs. Three (3) soil borings performed and PID readings did not indicate contamination issues. Materials certified herewith as CCDD material must be free of rebar, garbage, etc. and any said materials must be segregated from CCDD materials and disposed of in other legal means.

*The description must be sufficient to demonstrate that the source site is not potentially impacted property, thereby allowing the source site owner or operator to provide this certification.

IV. Soil pH Testing Results

Describe the results of soil pH testing showing that the soil pH is within the range of 6.25 to 9.0 and attach any supporting documentation.

Number of pages attached: 1

See attached. Results of soil pH testing are between 6.25 and 9.0.

V. Source Site Owner, Operator or Authorized Representative's Certification Statement and Signature

In accordance with the Illinois Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I Don Cassier-Agent (owner, operator or authorized representative of source site) certify that this site is not a potentially impacted property and the soil is presumed to be uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. I further certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. Additionally, I certify that I am either the site owner or operator or a duly authorized representative of the site owner or site operator and am authorized to sign this form. Furthermore, I certify that all information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

- Owner
- Operator
- Owner's Duly Authorized Representative
- Operator's Duly Authorized Representative

Don Cassier-Agent

Printed Name

Signature

7/3/18
Date

Soil pH Content

Standard Test Method for pH of Soils ASTM D4972 (Reapproved 2007)

11846G.2

| Sample ID | Sample | Depth | pH | PID |
|-----------|--------|---------|------|-----|
| B-1 | S-1 | 1'-2.5' | 7.66 | 0.0 |
| B-2 | S-1 | 1'-2.5' | 7.98 | 0.0 |
| HA-1 | S-1 | 1'-2.5' | 8.35 | 0.0 |

Matthew Boladz, P.E.

Project Engineer

Sample Date

1/26/2018

Sampled By

MB

Sample
Location

Plainfield, IL

AGGREGATE SUBGRADE IMPROVEMENT (BDE)

Effective: April 1, 2012

Revised: April 1, 2022

Add the following Section to the Standard Specifications:

“SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

303.01 Description. This work shall consist of constructing an aggregate subgrade improvement (ASI).

303.02 Materials. Materials shall be according to the following.

| Item | Article/Section |
|--|-----------------|
| (a) Coarse Aggregate | 1004.07 |
| (b) Reclaimed Asphalt Pavement (RAP) | 1031.09 |

303.03 Equipment. The vibratory roller shall be according to Article 1101.01, or as approved by the Engineer. Vibratory machines, such as tampers, shall be used in areas where rollers do not fit.

303.04 Soil Preparation. The minimum immediate bearing value (IBV) of the soil below the improved subgrade shall be according to the Department’s “Subgrade Stability Manual” for the aggregate thickness specified.

303.05 Placing and Compacting. The maximum nominal lift thickness of aggregate gradations CA 2, CA 6, and CA 10 when compacted shall be 9 in. (225 mm). The maximum nominal lift thickness of aggregate gradations CS 1, CS 2, and RR 1 when compacted shall be 24 in. (600 mm).

The top surface of the aggregate subgrade improvement shall consist of a layer of capping aggregate gradations CA 6 or CA 10 that is 3 in. (75 mm) thick after compaction. Capping aggregate will not be required when aggregate subgrade improvement is used as a cubic yard pay item for undercut applications.

Each lift of aggregate shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

303.06 Finishing and Maintenance. The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

303.07 Method of Measurement. This work will be measured for payment according to Article 311.08.

303.08 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) or ton (metric ton) for AGGREGATE SUBGRADE IMPROVEMENT or at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified.”

Add the following to Section 1004 of the Standard Specifications:

“1004.07 Coarse Aggregate for Aggregate Subgrade Improvement (ASI). The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete. In applications where greater than 24 in. (600 mm) of ASI material is required, gravel may be used below the top 12 in (300 mm) of ASI.

(b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.

(c) Gradation.

(1) The coarse aggregate gradation for total ASI thickness less than or equal to 12 in. (300 mm) shall be CA 2, CA 6, CA 10, or CS 1.

The coarse aggregate gradation for total ASI thickness greater than 12 in. (300 mm) shall be CS 1 or CS 2 as shown below or RR 1 according to Article 1005.01(c).

| COARSE AGGREGATE SUBGRADE GRADATIONS | | | | | |
|--------------------------------------|--------------------------------|--------|---------|---------|---------|
| Grad No. | Sieve Size and Percent Passing | | | | |
| | 8” | 6” | 4” | 2” | #4 |
| CS 1 | 100 | 97 ± 3 | 90 ± 10 | 45 ± 25 | 20 ± 20 |
| CS 2 | | 100 | 80 ± 10 | 25 ± 15 | |

| COARSE AGGREGATE SUBGRADE GRADATIONS (Metric) | | | | | |
|---|--------------------------------|--------|---------|---------|---------|
| Grad No. | Sieve Size and Percent Passing | | | | |
| | 200 mm | 150 mm | 100 mm | 50 mm | 4.75 mm |
| CS 1 | 100 | 97 ± 3 | 90 ± 10 | 45 ± 25 | 20 ± 20 |
| CS 2 | | 100 | 80 ± 10 | 25 ± 15 | |

(2) Capping aggregate shall be gradation CA 6 or CA 10.”

Add the following to Article 1031.09 of the Standard Specifications:

“(b) RAP in Aggregate Subgrade Improvement (ASI). RAP in ASI shall be according to Articles 1031.01(a), 1031.02(a), 1031.06(a)(1), and 1031.06(a)(2), and the following.

- (1) The testing requirements of Article 1031.03 shall not apply.
- (2) Crushed RAP used for the lower lift may be mechanically blended with aggregate gradations CS 1, CS 2, and RR 1 but it shall be no greater than 40 percent of the total product volume. RAP agglomerations shall be no greater than 4 in. (100 mm).
- (3) For capping aggregate, well graded RAP having 100 percent passing the 1 1/2 in. (38 mm) sieve may be used when aggregate gradations CS 1, CS 2, CA 2, or RR 1 are used in the lower lift. FRAP will not be permitted as capping material.

Blending shall be through calibrated interlocked feeders or a calibrated blending plant such that the prescribed blending percentage is maintained throughout the blending process. The calibration shall have an accuracy of ± 2.0 percent of the actual quantity of material delivered.”

80274

AUTOMATED FLAGGER ASSISTANCE DEVICES (BDE)

Effective: January 1, 2008

Revised: April 1, 2023

Description. This work shall consist of furnishing and operating automated flagger assistance devices (AFADs) as part of the work zone traffic control and protection for two-lane highways where two-way traffic is maintained over one lane of pavement in segments where no sideroads or entrances require deployment of additional flaggers. Use of these devices shall be at the option of the Contractor.

Equipment. AFADs shall be the STOP/SLOW or Red/Yellow Lens type mounted on a trailer or moveable cart meeting the requirements of the MUTCD and NCHRP 350 or MASH 2016, Category 4.

General. AFADs shall be placed at each end of the traffic control, where a flagger is shown on the plans. The AFAD shall be setup within five degrees of vertical.

Flagger symbol signs as shown on the plans shall be replaced with "BE PREPARED TO STOP" signs when the AFAD is in operation.

Personal communication devices shall not be used to operate the AFAD.

Flagging Requirements. Flaggers and flagging requirements shall be according to Article 701.13 of the Standard Specifications and the following.

Each AFAD shall be operated by a flagger trained to operate the specific AFAD to be deployed. A minimum of two flaggers shall be on site at all times during operation. Each flagger shall be positioned outside the lane of traffic and near each AFAD's location.

Flagging equipment required for traditional flagging shall be available near each AFAD location in the event of AFAD equipment malfunction/failure.

For nighttime flagging, the AFAD and flagger shall be illuminated according to Article 701.13 of the Standard Specifications.

When not in use, AFADs will be considered non-operating equipment and shall be stored according to Article 701.11 of the Standard Specifications.

Basis of Payment. This work will not be paid for separately but shall be considered as included in the cost of the various traffic control items included in the contract.

80192

BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE)

Effective: November 2, 2006

Revised: August 1, 2017

Description. Bituminous material cost adjustments will be made to provide additional compensation to the Contractor, or credit to the Department, for fluctuations in the cost of bituminous materials when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract.

The adjustments shall apply to permanent and temporary hot-mix asphalt (HMA) mixtures, bituminous surface treatments (cover and seal coats), and preventative maintenance type surface treatments that are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply to bituminous prime coats, tack coats, crack filling/sealing, joint filling/sealing, or extra work paid for at a lump sum price or by force account.

Method of Adjustment. Bituminous materials cost adjustments will be computed as follows.

$$CA = (BPI_P - BPI_L) \times (\%AC_V / 100) \times Q$$

- Where: CA = Cost Adjustment, \$.
- BPI_P = Bituminous Price Index, as published by the Department for the month the work is performed, \$/ton (\$/metric ton).
- BPI_L = Bituminous Price Index, as published by the Department for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price, \$/ton (\$/metric ton).
- %AC_V = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC_V will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC_V and undiluted emulsified asphalt will be considered to be 65% AC_V.
- Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: $Q, \text{ tons} = A \times D \times (G_{mb} \times 46.8) / 2000$. For HMA mixtures measured in square meters: $Q, \text{ metric tons} = A \times D \times (G_{mb} \times 1) / 1000$. When computing adjustments for full-depth HMA pavement, separate calculations will be made for the binder and surface courses to account for their different G_{mb} and % AC_V.

For bituminous materials measured in gallons: $Q, \text{ tons} = V \times 8.33 \text{ lb/gal} \times SG / 2000$
For bituminous materials measured in liters: $Q, \text{ metric tons} = V \times 1.0 \text{ kg/L} \times SG / 1000$

- Where: A = Area of the HMA mixture, sq yd (sq m).
D = Depth of the HMA mixture, in. (mm).
G_{mb} = Average bulk specific gravity of the mixture, from the approved mix design.

V = Volume of the bituminous material, gal (L).
SG = Specific Gravity of bituminous material as shown on the bill of lading.

Basis of Payment. Bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the BPI_L and BPI_P in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(BPI_L - BPI_P) \div BPI_L\} \times 100$$

Bituminous materials cost adjustments will be calculated for each calendar month in which applicable bituminous material is placed; and will be paid or deducted when all other contract requirements for the work placed during the month are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

80173

BLENDED FINELY DIVIDED MINERALS (BDE)

Effective: April 1, 2021

Revise the second paragraph of Article 1010.01 of the Standard Specifications to read:

“Different sources or types of finely divided minerals shall not be mixed or used alternately in the same item of construction, except as a blended finely divided mineral product according to Article 1010.06.”

Add the following article to Section 1010 of the Standard Specifications:

“1010.06 Blended Finely Divided Minerals. Blended finely divided minerals shall be the product resulting from the blending or intergrinding of two or three finely divided minerals. Blended finely divided minerals shall be according to ASTM C 1697, except as follows.

- (a) Blending shall be accomplished by mechanically or pneumatically intermixing the constituent finely divided minerals into a uniform mixture that is then discharged into a silo for storage or tanker for transportation.
- (b) The blended finely divided mineral product will be classified according to its predominant constituent or the manufacturer’s designation and shall meet the chemical requirements of its classification. The other finely divided mineral constituent(s) will not be required to conform to their individual standards.”

80436

CEMENT, TYPE IL (BDE)

Effective: August 1, 2023

Add the following to Article 302.02 of the Standard Specifications:

“(k) Type IL Portland-Limestone Cement1001”

Revise Note 2 of Article 352.02 of the Standard Specifications to read:

“Note 2. Either Type I or Type IA portland cement or Type IL portland-limestone cement shall be used.”

Revise Note 1 of Article 404.02 of the Standard Specifications to read:

“Note 1. The cement shall be Type I portland cement or Type IL portland-limestone cement.”

Revise Article 1019.02(a) of the Standard Specifications to read:

“(a) Cement, Type I or IL1001”

80449

COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017

Revised: April 1, 2019

Revise Article 107.40(b) of the Standard Specifications to read:

“(b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows.

- (1) Minor Delay. A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.
- (2) Major Delay. A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.
- (3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days.”

Revise Article 107.40(c) of the Standard Specifications to read:

“(c) Payment. Payment for Minor, Major, and Reduced Rate of Production Delays will be made as follows.

- (1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).

- (2) Major Delay. Labor will be the same as for a minor delay.

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the

Contractor's yard or another job and the cost to re-mobilize, whichever is less. Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

- (3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven calendar days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Payment for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be determined according to Article 109.13.”

Revise Article 108.04(b) of the Standard Specifications to read:

“(b) No working day will be charged under the following conditions.

- (1) When adverse weather prevents work on the controlling item.
- (2) When job conditions due to recent weather prevent work on the controlling item.
- (3) When conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; delay by the Department in making the site available; or delay in furnishing any items required to be furnished to the Contractor by the Department prevents work on the controlling item.
- (4) When delays caused by utility or railroad adjustments prevent work on the controlling item.
- (5) When strikes, lock-outs, extraordinary delays in transportation, or inability to procure critical materials prevent work on the controlling item, as long as these delays are not due to any fault of the Contractor.
- (6) When any condition over which the Contractor has no control prevents work on the controlling item.”

Revise Article 109.09(f) of the Standard Specifications to read:

“(f) Basis of Payment. After resolution of a claim in favor of the Contractor, any adjustment in time required for the work will be made according to Section 108. Any adjustment in the costs to be paid will be made for direct labor, direct materials, direct equipment, direct jobsite overhead, direct offsite overhead, and other direct costs allowed by the resolution. Adjustments in costs will not be made for interest charges, loss of anticipated profit, undocumented loss of efficiency, home office overhead and unabsorbed overhead

other than as allowed by Article 109.13, lost opportunity, preparation of claim expenses and other consequential indirect costs regardless of method of calculation.

The above Basis of Payment is an essential element of the contract and the claim cost recovery of the Contractor shall be so limited.”

Add the following to Section 109 of the Standard Specifications.

“109.13 Payment for Contract Delay. Compensation for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be allowed when such costs result from a delay meeting the criteria in the following table.

| Contract Type | Cause of Delay | Length of Delay |
|-----------------|--|---|
| Working Days | Article 108.04(b)(3) or Article 108.04(b)(4) | No working days have been charged for two consecutive weeks. |
| Completion Date | Article 108.08(b)(1) or Article 108.08(b)(7) | The Contractor has been granted a minimum two week extension of contract time, according to Article 108.08. |

Payment for each of the various costs will be according to the following.

- (a) Escalated Material and/or Labor Costs. When the delay causes work, which would have otherwise been completed, to be done after material and/or labor costs have increased, such increases will be paid. Payment for escalated material costs will be limited to the increased costs substantiated by documentation furnished by the Contractor. Payment for escalated labor costs will be limited to those items in Article 109.04(b)(1) and (2), except the 35 percent and 10 percent additives will not be permitted.
- (b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.
 - (1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

| Original Contract Amount | Supervisory and Administrative Personnel |
|--|--|
| Up to \$5,000,000 | One Project Superintendent |
| Over \$ 5,000,000 - up to \$25,000,000 | One Project Manager, One Project Superintendent or Engineer, and One Clerk |
| Over \$25,000,000 - up to \$50,000,000 | One Project Manager, One Project Superintendent, One Engineer, and |

| | |
|-------------------|--|
| | One Clerk |
| Over \$50,000,000 | One Project Manager, Two Project Superintendents, One Engineer, and One Clerk |

(2) Home Office and Unabsorbed Overhead. Payment for home office and unabsorbed overhead will be calculated as 8 percent of the total delay cost.

(c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid for according to Article 109.04.

When an extended traffic control adjustment is paid under this provision, an adjusted unit price as provided for in Article 701.20(a) for increase or decrease in the value of work by more than ten percent will not be paid.

Upon payment for a contract delay under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this provision."

80384

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010

Revised: November 1, 2014

The reduction of emissions of particulate matter (PM) for off-road equipment shall be accomplished by installing retrofit emission control devices. The term “equipment” refers to diesel fuel powered devices rated at 50 hp and above, to be used on the jobsite in excess of seven calendar days over the course of the construction period on the jobsite (including rental equipment).

Contractor and subcontractor diesel powered off-road equipment assigned to the contract shall be retrofitted using the phased in approach shown below. Equipment that is of a model year older than the year given for that equipment’s respective horsepower range shall be retrofitted:

| Effective Dates | Horsepower Range | Model Year |
|----------------------------|------------------|------------|
| June 1, 2010 ^{1/} | 600-749 | 2002 |
| | 750 and up | 2006 |
| June 1, 2011 ^{2/} | 100-299 | 2003 |
| | 300-599 | 2001 |
| | 600-749 | 2002 |
| | 750 and up | 2006 |
| June 1, 2012 ^{2/} | 50-99 | 2004 |
| | 100-299 | 2003 |
| | 300-599 | 2001 |
| | 600-749 | 2002 |
| | 750 and up | 2006 |

1/ Effective dates apply to Contractor diesel powered off-road equipment assigned to the contract.

2/ Effective dates apply to Contractor and subcontractor diesel powered off-road equipment assigned to the contract.

The retrofit emission control devices shall achieve a minimum PM emission reduction of 50 percent and shall be:

- a) Included on the U.S. Environmental Protection Agency (USEPA) *Verified Retrofit Technology List* (<http://www.epa.gov/cleandiesel/verification/verif-list.htm>), or verified by the California Air Resources Board (CARB) (<http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>); or
- b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit

device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall not be grounds for a claim.

Diesel Retrofit Deficiency Deduction

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be \$1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected.

Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

80261

CORRUGATED PLASTIC PIPE (CULVERT AND STORM SEWER) (BDE)

Effective: January 1, 2021

Revise Tables IIIA and IIIB of Article 542.03 and the storm sewers tables of Article 550.03 of the Standard Specifications to read:

(SEE TABLES ON NEXT 10 PAGES)

| "PIPE CULVERTS TABLE IIIA: PLASTIC PIPE PERMITTED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE | | | | | | | | | | | | | | | | | | | | |
|--|--|------|----|-----|-----|--|------|----|-----|-----|---|------|----|-----|-----|---|------|----|-----|-----|
| Nominal Diameter (in.) | Type 1 | | | | | Type 2 | | | | | Type 3 | | | | | Type 4 | | | | |
| | Fill Height: 3' and less, with 1' min | | | | | Fill Height: Greater than 3', not exceeding 10' | | | | | Fill Height: Greater than 10', not exceeding 15' | | | | | Fill Height: Greater than 15', not exceeding 20' | | | | |
| | PVC | CPVC | PE | CPE | CPP | PVC | CPVC | PE | CPE | CPP | PVC | CPVC | PE | CPE | CPP | PVC | CPVC | PE | CPE | CPP |
| 10 | X | QPL | X | QPL | NA | X | QPL | X | QPL | NA | X | QPL | X | QPL | NA | X | QPL | X | QPL | NA |
| 12 | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL |
| 15 | X | QPL | NA | QPL | QPL | X | QPL | NA | QPL | QPL | X | QPL | NA | QPL | QPL | X | QPL | NA | QPL | QPL |
| 18 | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL |
| 21 | X | QPL | NA | QPL | NA | X | QPL | NA | QPL | NA | X | QPL | NA | QPL | NA | X | QPL | NA | NA | NA |
| 24 | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | NA | QPL |
| 27 | X | NA | NA | NA | NA | X | NA | NA | NA | NA | X | NA | NA | NA | NA | X | NA | NA | NA | NA |
| 30 | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | NA | QPL |
| 36 | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | NA | QPL |
| 42 | X | NA | X | QPL | QPL | X | NA | X | QPL | QPL | X | NA | X | NA | QPL | X | NA | X | NA | NA |
| 48 | X | NA | X | QPL | QPL | X | NA | X | QPL | QPL | X | NA | X | NA | QPL | X | NA | X | NA | NA |
| 54 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 60 | NA | NA | NA | QPL | QPL | NA | NA | NA | QPL | QPL | NA | NA | NA | NA | QPL | NA | NA | NA | NA | NA |

- Notes:
- PVC Polyvinyl Chloride Pipe
 - CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
 - PE Polyethylene Pipe
 - CPE Corrugated Polyethylene Pipe with a Smooth Interior
 - CPP Corrugated Polypropylene Pipe with a Smooth Interior
 - X Permitted
 - QPL Permitted for the producers approved for that diameter in the Department's qualified product list
 - NA Not Acceptable

| PIPE CULVERTS (metric) | | | | | | | | | | | | | | | | | | | | |
|--|--|------|----|-----|-----|--|------|----|-----|-----|--|------|----|-----|-----|--|------|----|-----|-----|
| TABLE IIIA: PLASTIC PIPE PERMITTED | | | | | | | | | | | | | | | | | | | | |
| FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE | | | | | | | | | | | | | | | | | | | | |
| Nominal Diameter (mm) | Type 1 | | | | | Type 2 | | | | | Type 3 | | | | | Type 4 | | | | |
| | Fill Height: 1 m and less, with 0.3 m min. cover | | | | | Fill Height: Greater than 1 m, not exceeding 3 m | | | | | Fill Height: Greater than 3 m, not exceeding 4.5 m | | | | | Fill Height: Greater than 4.5 m, not exceeding 6 m | | | | |
| | PVC | CPVC | PE | CPE | CPP | PVC | CPVC | PE | CPE | CPP | PVC | CPVC | PE | CPE | CPP | PVC | CPVC | PE | CPE | CPP |
| 250 | X | QPL | X | QPL | NA | X | QPL | X | QPL | NA | X | QPL | X | QPL | NA | X | QPL | X | QPL | NA |
| 300 | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL |
| 375 | X | QPL | NA | QPL | QPL | X | QPL | NA | QPL | QPL | X | QPL | NA | QPL | QPL | X | QPL | NA | QPL | QPL |
| 450 | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL |
| 525 | X | QPL | NA | QPL | NA | X | QPL | NA | QPL | NA | X | QPL | NA | QPL | NA | X | QPL | NA | NA | NA |
| 600 | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | NA | QPL |
| 675 | X | NA | NA | NA | NA | X | NA | NA | NA | NA | X | NA | NA | NA | NA | X | NA | NA | NA | NA |
| 750 | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | NA | QPL |
| 900 | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | QPL | QPL | X | QPL | X | NA | QPL |
| 1050 | X | NA | X | QPL | QPL | X | NA | X | QPL | QPL | X | NA | X | NA | QPL | X | NA | X | NA | NA |
| 1200 | X | NA | X | QPL | QPL | X | NA | X | QPL | QPL | X | NA | X | NA | QPL | X | NA | X | NA | NA |
| 1350 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1500 | NA | NA | NA | QPL | QPL | NA | NA | NA | QPL | QPL | NA | NA | NA | NA | QPL | NA | NA | NA | NA | NA |

- Notes:
- PVC Polyvinyl Chloride Pipe
 - CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
 - PE Polyethylene Pipe
 - CPE Corrugated Polyethylene Pipe with a Smooth Interior
 - CPP Corrugated Polypropylene Pipe with a Smooth Interior
 - X Permitted
 - QPL Permitted for the producers approved for that diameter in the Department's qualified product list
 - NA Not Acceptable

PIPE CULVERTS
TABLE IIIB: PLASTIC PIPE PERMITTED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

| Nominal Diameter (in.) | Type 5 | | | | | Type 6 | | | Type 7 | | |
|------------------------|--|------|----|-----|-----|--|------|----|--|------|----|
| | Fill Height: Greater than 20', not exceeding 25' | | | | | Fill Height: Greater than 25', not exceeding 30' | | | Fill Height: Greater than 30', not exceeding 35' | | |
| | PVC | CPVC | PE | CPE | CPP | PVC | CPVC | PE | PVC | CPVC | PE |
| 10 | X | QPL | X | QPL | NA | X | QPL | X | X | QPL | X |
| 12 | X | QPL | X | QPL | QPL | X | QPL | X | X | QPL | X |
| 15 | X | QPL | NA | NA | QPL | X | QPL | NA | X | QPL | NA |
| 18 | X | QPL | X | NA | NA | X | QPL | X | X | QPL | X |
| 21 | X | QPL | NA | NA | NA | X | QPL | NA | X | QPL | NA |
| 24 | X | QPL | X | NA | NA | X | QPL | X | X | QPL | X |
| 27 | X | NA | NA | NA | NA | X | NA | NA | X | NA | NA |
| 30 | X | QPL | X | NA | QPL | X | QPL | X | X | QPL | X |
| 36 | X | QPL | X | NA | NA | X | QPL | X | X | QPL | X |
| 42 | X | NA | X | NA | NA | X | NA | X | X | NA | X |
| 48 | X | NA | X | NA | NA | X | NA | X | X | NA | X |
| 54 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 60 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes: PVC Polyvinyl Chloride Pipe
 CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
 CPP Corrugated Polypropylene Pipe with a Smooth Interior
 X Permitted
 QPL Permitted for the producers approved for that diameter in the Department's qualified product list
 NA Not Acceptable

PIPE CULVERTS (metric)
TABLE IIIB: PLASTIC PIPE PERMITTED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

| Nominal Diameter (mm) | Type 5 | | | | | Type 6 | | | Type 7 | | |
|-----------------------|--|------|----|-----|-----|--|------|----|---|------|----|
| | Fill Height: Greater than 6 m, not exceeding 7.5 m | | | | | Fill Height: Greater than 7.5 m, not exceeding 9 m | | | Fill Height: Greater than 9 m, not exceeding 10.5 m | | |
| | PVC | CPVC | PE | CPE | CPP | PVC | CPVC | PE | PVC | CPVC | PE |
| 250 | X | QPL | X | QPL | NA | X | QPL | X | X | QPL | X |
| 300 | X | QPL | X | QPL | QPL | X | QPL | X | X | QPL | X |
| 375 | X | QPL | NA | NA | QPL | X | QPL | NA | X | QPL | NA |
| 450 | X | QPL | X | NA | NA | X | QPL | X | X | QPL | X |
| 525 | X | QPL | NA | NA | NA | X | QPL | NA | X | QPL | NA |
| 600 | X | QPL | X | NA | NA | X | QPL | X | X | QPL | X |
| 675 | X | NA | NA | NA | NA | X | NA | NA | X | NA | NA |
| 750 | X | QPL | X | NA | QPL | X | QPL | X | X | QPL | X |
| 900 | X | QPL | X | NA | NA | X | QPL | X | X | QPL | X |
| 1000 | X | NA | X | NA | NA | X | NA | X | X | NA | X |
| 1200 | X | NA | X | NA | NA | X | NA | X | X | NA | X |
| 1350 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1500 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

- Notes:
- PVC Polyvinyl Chloride Pipe
 - CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
 - CPP Corrugated Polypropylene Pipe with a Smooth Interior
 - X Permitted
 - QPL Permitted for the producers approved for that diameter in the Department's qualified product list
 - NA Not Acceptable

| STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE | | | | | | | | | | | | | | | | |
|--|--|-----|------|-----|------|----|-----|-----|---|-----|------|-----|------|----|-----|-----|
| Nominal Diameter in. | Type 1 | | | | | | | | Type 2 | | | | | | | |
| | Fill Height: 3' and less, with 1' min. | | | | | | | | Fill Height: Greater than 3', not exceeding 10' | | | | | | | |
| | RCCP | CSP | ESCP | PVC | CPVC | PE | CPE | CPP | RCCP | CSP | ESCP | PVC | CPVC | PE | CPE | CPP |
| 10 | NA | 3 | X | X | QPL | X | QPL | NA | NA | 1 | *X | X | QPL | X | QPL | NA |
| 12 | IV | NA | X | X | QPL | X | QPL | QPL | II | 1 | *X | X | QPL | X | QPL | QPL |
| 15 | IV | NA | NA | X | QPL | NA | QPL | QPL | II | 1 | *X | X | QPL | NA | QPL | QPL |
| 18 | IV | NA | NA | X | QPL | X | QPL | QPL | II | 2 | X | X | QPL | X | QPL | QPL |
| 21 | III | NA | NA | X | QPL | NA | QPL | NA | II | 2 | X | X | QPL | NA | QPL | NA |
| 24 | III | NA | NA | X | QPL | X | QPL | QPL | II | 2 | X | X | QPL | X | QPL | QPL |
| 27 | III | NA | NA | X | NA | NA | NA | NA | II | 3 | X | X | NA | NA | NA | NA |
| 30 | IV | NA | NA | X | QPL | X | QPL | QPL | II | 3 | X | X | QPL | X | QPL | QPL |
| 33 | III | NA | NA | NA | NA | NA | NA | NA | II | NA | X | NA | NA | NA | NA | NA |
| 36 | III | NA | NA | X | QPL | X | QPL | QPL | II | NA | X | X | QPL | X | QPL | QPL |
| 42 | II | NA | X | X | NA | X | QPL | QPL | II | NA | X | X | NA | X | QPL | QPL |
| 48 | II | NA | X | X | NA | X | QPL | QPL | II | NA | X | X | NA | X | QPL | QPL |
| 54 | II | NA | NA | NA | NA | NA | NA | NA | II | NA | NA | NA | NA | NA | NA | NA |
| 60 | II | NA | NA | NA | NA | NA | QPL | QPL | II | NA | NA | NA | NA | NA | QPL | QPL |
| 66 | II | NA | NA | NA | NA | NA | NA | NA | II | NA | NA | NA | NA | NA | NA | NA |
| 72 | II | NA | NA | NA | NA | NA | NA | NA | II | NA | NA | NA | NA | NA | NA | NA |
| 78 | II | NA | NA | NA | NA | NA | NA | NA | II | NA | NA | NA | NA | NA | NA | NA |
| 84 | II | NA | NA | NA | NA | NA | NA | NA | II | NA | NA | NA | NA | NA | NA | NA |
| 90 | II | NA | NA | NA | NA | NA | NA | NA | II | NA | NA | NA | NA | NA | NA | NA |
| 96 | II | NA | NA | NA | NA | NA | NA | NA | III | NA | NA | NA | NA | NA | NA | NA |
| 102 | II | NA | NA | NA | NA | NA | NA | NA | III | NA | NA | NA | NA | NA | NA | NA |
| 108 | II | NA | NA | NA | NA | NA | NA | NA | III | NA | NA | NA | NA | NA | NA | NA |

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- CSP Concrete Sewer, Storm drain, and Culvert Pipe (number in column indicates strength class)
- ESCP Extra Strength Clay Pipe
- PVC Polyvinyl Chloride Pipe
- CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
- PE Polyethylene Pipe
- CPE Corrugated Polyethylene Pipe with a Smooth Interior
- CPP Corrugated Polypropylene Pipe with a Smooth Interior
- X Permitted
- QPL Permitted for the producers approved for that diameter in the Department's qualified product list
- NA Not Acceptable
- * May also use Standard Strength Clay Pipe

| STORM SEWERS (metric) KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE | | | | | | | | | | | | | | | | |
|---|--|-----|------|-----|------|----|-----|-----|---|-----|------|-----|------|----|-----|-----|
| Nominal Diameter mm | Type 1 | | | | | | | | Type 2 | | | | | | | |
| | Fill Height: 1 m and less, with 300 mm min, | | | | | | | | Fill Height: Greater than 1 m, not exceeding 3 m | | | | | | | |
| | RCCP | CSP | ESCP | PVC | CPVC | PE | CPE | CPP | RCCP | CSP | ESCP | PVC | CPVC | PE | CPE | CPP |
| 250 | NA | 3 | X | X | QPL | X | QPL | NA | NA | 1 | *X | X | QPL | X | QPL | NA |
| 300 | IV | NA | X | X | QPL | X | QPL | QPL | II | 1 | *X | X | QPL | X | QPL | QPL |
| 375 | IV | NA | NA | X | QPL | NA | QPL | QPL | II | 1 | *X | X | QPL | NA | QPL | QPL |
| 450 | IV | NA | NA | X | QPL | X | QPL | QPL | II | 2 | X | X | QPL | X | QPL | QPL |
| 525 | III | NA | NA | X | QPL | NA | QPL | NA | II | 2 | X | X | QPL | NA | QPL | NA |
| 600 | III | NA | NA | X | QPL | X | QPL | QPL | II | 2 | X | X | QPL | X | QPL | QPL |
| 675 | III | NA | NA | X | NA | NA | NA | NA | II | 3 | X | X | NA | NA | NA | NA |
| 750 | IV | NA | NA | X | QPL | X | QPL | QPL | II | 3 | X | X | QPL | X | QPL | QPL |
| 825 | III | NA | NA | NA | NA | NA | NA | NA | II | NA | X | NA | NA | NA | NA | NA |
| 900 | III | NA | NA | X | QPL | X | QPL | QPL | II | NA | X | X | QPL | X | QPL | QPL |
| 1050 | II | NA | X | X | NA | X | QPL | QPL | II | NA | X | X | NA | X | QPL | QPL |
| 1200 | II | NA | X | X | NA | X | QPL | QPL | II | NA | X | X | NA | X | QPL | QPL |
| 1350 | II | NA | NA | NA | NA | NA | NA | NA | II | NA | NA | NA | NA | NA | NA | NA |
| 1500 | II | NA | NA | NA | NA | NA | QPL | QPL | II | NA | NA | NA | NA | NA | QPL | QPL |
| 1650 | II | NA | NA | NA | NA | NA | NA | NA | II | NA | NA | NA | NA | NA | NA | NA |
| 1800 | II | NA | NA | NA | NA | NA | NA | NA | II | NA | NA | NA | NA | NA | NA | NA |
| 1950 | II | NA | NA | NA | NA | NA | NA | NA | II | NA | NA | NA | NA | NA | NA | NA |
| 2100 | II | NA | NA | NA | NA | NA | NA | NA | II | NA | NA | NA | NA | NA | NA | NA |
| 2250 | II | NA | NA | NA | NA | NA | NA | NA | II | NA | NA | NA | NA | NA | NA | NA |
| 2400 | II | NA | NA | NA | NA | NA | NA | NA | III | NA | NA | NA | NA | NA | NA | NA |
| 2550 | II | NA | NA | NA | NA | NA | NA | NA | III | NA | NA | NA | NA | NA | NA | NA |
| 2700 | II | NA | NA | NA | NA | NA | NA | NA | III | NA | NA | NA | NA | NA | NA | NA |

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- CSP Concrete Sewer, Storm drain, and Culvert Pipe (number in column indicates strength class)
- ESCP Extra Strength Clay Pipe
- PVC Polyvinyl Chloride Pipe
- CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior
- PE Polyethylene Pipe
- CPE Corrugated Polyethylene Pipe with a Smooth Interior
- CPP Corrugated Polypropylene Pipe with a Smooth Interior
- X Permitted
- QPL Permitted for the producers approved for that diameter in the Department's qualified product list
- NA Not Acceptable
- * May also use Standard Strength Clay Pipe

| STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE | | | | | | | | | | | | | | | | |
|--|--|-----|------|-----|------|----|-----|-----|--|-----|------|-----|------|----|-----|-----|
| Nominal Diameter in. | Type 3 | | | | | | | | Type 4 | | | | | | | |
| | Fill Height: Greater than 10' not exceeding 15' | | | | | | | | Fill Height: Greater than 15' not exceeding 20' | | | | | | | |
| | RCCP | CSP | ESCP | PVC | CPVC | PE | CPE | CPP | RCCP | CSP | ESCP | PVC | CPVC | PE | CPE | CPP |
| 10 | NA | 2 | X | X | QPL | X | QPL | NA | NA | 3 | X | X | QPL | X | QPL | NA |
| 12 | III | 2 | X | X | QPL | X | QPL | QPL | IV | NA | NA | X | QPL | X | QPL | QPL |
| 15 | III | 3 | X | X | QPL | NA | QPL | QPL | IV | NA | NA | X | QPL | NA | QPL | QPL |
| 18 | III | NA | X | X | QPL | X | QPL | QPL | IV | NA | NA | X | QPL | X | QPL | QPL |
| 21 | III | NA | NA | X | QPL | NA | QPL | NA | IV | NA | NA | X | QPL | NA | NA | NA |
| 24 | III | NA | NA | X | QPL | X | QPL | QPL | IV | NA | NA | X | QPL | X | NA | QPL |
| 27 | III | NA | NA | X | NA | NA | NA | NA | IV | NA | NA | X | NA | NA | NA | NA |
| 30 | III | NA | NA | X | QPL | X | QPL | QPL | IV | NA | NA | X | QPL | X | NA | QPL |
| 33 | III | NA | NA | NA | NA | NA | NA | NA | IV | NA | NA | NA | NA | NA | NA | NA |
| 36 | III | NA | NA | X | QPL | X | QPL | QPL | IV | NA | NA | X | QPL | X | NA | QPL |
| 42 | III | NA | NA | X | NA | X | NA | QPL | IV | NA | NA | X | NA | X | NA | NA |
| 48 | III | NA | NA | X | NA | X | NA | QPL | IV | NA | NA | X | NA | X | NA | NA |
| 54 | III | NA | NA | NA | NA | NA | NA | NA | IV | NA | NA | NA | NA | NA | NA | NA |
| 60 | III | NA | NA | NA | NA | NA | NA | QPL | IV | NA | NA | NA | NA | NA | NA | NA |
| 66 | III | NA | NA | NA | NA | NA | NA | NA | IV | NA | NA | NA | NA | NA | NA | NA |
| 72 | III | NA | NA | NA | NA | NA | NA | NA | IV | NA | NA | NA | NA | NA | NA | NA |
| 78 | III | NA | NA | NA | NA | NA | NA | NA | IV | NA | NA | NA | NA | NA | NA | NA |
| 84 | III | NA | NA | NA | NA | NA | NA | NA | IV | NA | NA | NA | NA | NA | NA | NA |
| 90 | III | NA | NA | NA | NA | NA | NA | NA | 1680 | NA | NA | NA | NA | NA | NA | NA |
| 96 | III | NA | NA | NA | NA | NA | NA | NA | 1690 | NA | NA | NA | NA | NA | NA | NA |
| 102 | III | NA | NA | NA | NA | NA | NA | NA | 1700 | NA | NA | NA | NA | NA | NA | NA |
| 108 | 1360 | NA | NA | NA | NA | NA | NA | NA | 1710 | NA | NA | NA | NA | NA | NA | NA |

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe (RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack.)

CSP Concrete Sewer, Storm drain, and Culvert Pipe (number in column indicates strength class)

ESCP Extra Strength Clay Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior

PE Polyethylene Pipe

CPE Corrugated Polyethylene Pipe with a Smooth Interior

CPP Corrugated Polypropylene Pipe with a Smooth Interior

X Permitted

QPL Permitted for the producers approved for that diameter in the Department's qualified product list

NA Not Acceptable

| STORM SEWERS (metric) KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE | | | | | | | | | | | | | | | | |
|---|---|-----|------|-----|------|----|-----|-----|---|-----|------|-----|------|----|-----|-----|
| Nominal Diameter mm | Type 3 | | | | | | | | Type 4 | | | | | | | |
| | Fill Height: Greater than 3 m, not exceeding 4.5 m | | | | | | | | Fill Height: Greater than 4.5 m, not exceeding 6 m | | | | | | | |
| | RCCP | CSP | ESCP | PVC | CPVC | PE | CPE | CPP | RCCP | CSP | ESCP | PVC | CPVC | PE | CPE | CPP |
| 250 | NA | 2 | X | X | QPL | X | QPL | NA | NA | 3 | X | X | QPL | X | QPL | NA |
| 300 | III | 2 | X | X | QPL | X | QPL | QPL | IV | NA | NA | X | QPL | X | QPL | QPL |
| 375 | III | 3 | X | X | QPL | NA | QPL | QPL | IV | NA | NA | X | QPL | NA | QPL | QPL |
| 450 | III | NA | X | X | QPL | X | QPL | QPL | IV | NA | NA | X | QPL | X | QPL | QPL |
| 525 | III | NA | NA | X | QPL | NA | QPL | NA | IV | NA | NA | X | QPL | NA | NA | NA |
| 600 | III | NA | NA | X | QPL | X | QPL | QPL | IV | NA | NA | X | QPL | X | NA | QPL |
| 675 | III | NA | NA | X | NA | NA | NA | NA | IV | NA | NA | X | NA | NA | NA | NA |
| 750 | III | NA | NA | X | QPL | X | QPL | QPL | IV | NA | NA | X | QPL | X | NA | QPL |
| 825 | III | NA | NA | NA | NA | NA | NA | NA | IV | NA | NA | NA | NA | NA | NA | NA |
| 900 | III | NA | NA | X | QPL | X | QPL | QPL | IV | NA | NA | X | QPL | X | NA | QPL |
| 1050 | III | NA | NA | X | NA | X | NA | QPL | IV | NA | NA | X | NA | X | NA | NA |
| 1200 | III | NA | NA | X | NA | X | NA | QPL | IV | NA | NA | X | NA | X | NA | NA |
| 1350 | III | NA | NA | NA | NA | NA | NA | NA | IV | NA | NA | NA | NA | NA | NA | NA |
| 1500 | III | NA | NA | NA | NA | NA | NA | QPL | IV | NA | NA | NA | NA | NA | NA | NA |
| 1650 | III | NA | NA | NA | NA | NA | NA | NA | IV | NA | NA | NA | NA | NA | NA | NA |
| 1800 | III | NA | NA | NA | NA | NA | NA | NA | IV | NA | NA | NA | NA | NA | NA | NA |
| 1950 | III | NA | NA | NA | NA | NA | NA | NA | IV | NA | NA | NA | NA | NA | NA | NA |
| 2100 | III | NA | NA | NA | NA | NA | NA | NA | IV | NA | NA | NA | NA | NA | NA | NA |
| 2250 | III | NA | NA | NA | NA | NA | NA | NA | 80 | NA | NA | NA | NA | NA | NA | NA |
| 2400 | III | NA | NA | NA | NA | NA | NA | NA | 80 | NA | NA | NA | NA | NA | NA | NA |
| 2550 | III | NA | NA | NA | NA | NA | NA | NA | 80 | NA | NA | NA | NA | NA | NA | NA |
| 2700 | 70 | NA | NA | NA | NA | NA | NA | NA | 80 | NA | NA | NA | NA | NA | NA | NA |

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe (RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 25.4 micro-meter crack.)

CSP Concrete Sewer, Storm drain, and Culvert Pipe (number in column indicates strength class)

ESCP Extra Strength Clay Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior

PE Polyethylene Pipe

CPE Corrugated Polyethylene Pipe with a Smooth Interior

CPP Corrugated Polypropylene Pipe with a Smooth Interior

X Permitted

QPL Permitted for the producers approved for that diameter in the Department's qualified product list

NA Not Acceptable

| STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE | | | | | | | | | | | | | | |
|--|---|-----|------|----|-----|-----|---|-----|------|----|---|-----|------|----|
| Nominal Diameter in. | Type 5 | | | | | | Type 6 | | | | Type 7 | | | |
| | Fill Height: Greater than 20', not exceeding 25' | | | | | | Fill Height: Greater than 25', not exceeding 30' | | | | Fill Height: Greater than 30', not exceeding 35' | | | |
| | RCCP | PVC | CPVC | PE | CPE | CPP | RCCP | PVC | CPVC | PE | RCCP | PVC | CPVC | PE |
| 10 | NA | X | QPL | X | QPL | NA | NA | X | QPL | X | NA | X | QPL | X |
| 12 | IV | X | QPL | X | QPL | QPL | V | X | QPL | X | V | X | QPL | X |
| 15 | IV | X | QPL | NA | NA | QPL | V | X | QPL | NA | V | X | QPL | NA |
| 18 | IV | X | QPL | X | NA | NA | V | X | QPL | X | V | X | QPL | X |
| 21 | IV | X | QPL | NA | NA | NA | V | X | QPL | NA | V | X | QPL | NA |
| 24 | IV | X | QPL | X | NA | NA | V | X | QPL | X | V | X | QPL | X |
| 27 | IV | X | NA | NA | NA | NA | V | X | NA | NA | V | X | NA | NA |
| 30 | IV | X | QPL | X | NA | QPL | V | X | QPL | X | V | X | QPL | X |
| 33 | IV | NA | NA | NA | NA | NA | V | NA | NA | NA | V | NA | NA | NA |
| 36 | IV | X | QPL | X | NA | NA | V | X | QPL | X | V | X | QPL | X |
| 42 | IV | X | NA | X | NA | NA | V | X | NA | X | V | X | NA | X |
| 48 | IV | X | NA | X | NA | NA | V | X | NA | X | V | X | NA | X |
| 54 | IV | NA | NA | NA | NA | NA | V | NA | NA | NA | V | NA | NA | NA |
| 60 | IV | NA | NA | NA | NA | NA | V | NA | NA | NA | V | NA | NA | NA |
| 66 | IV | NA | NA | NA | NA | NA | V | NA | NA | NA | V | NA | NA | NA |
| 72 | V | NA | NA | NA | NA | NA | V | NA | NA | NA | V | NA | NA | NA |
| 78 | 2020 | NA | NA | NA | NA | NA | 2370 | NA | NA | NA | 2730 | NA | NA | NA |
| 84 | 2020 | NA | NA | NA | NA | NA | 2380 | NA | NA | NA | 2740 | NA | NA | NA |
| 90 | 2030 | NA | NA | NA | NA | NA | 2390 | NA | NA | NA | 2750 | NA | NA | NA |
| 96 | 2040 | NA | NA | NA | NA | NA | 2400 | NA | NA | NA | 2750 | NA | NA | NA |
| 102 | 2050 | NA | NA | NA | NA | NA | 2410 | NA | NA | NA | 2760 | NA | NA | NA |
| 108 | 2060 | NA | NA | NA | NA | NA | 2410 | NA | NA | NA | 2770 | NA | NA | NA |

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe (RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack.)

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior

PE Polyethylene Pipe

CPE Corrugated Polyethylene Pipe with a Smooth Interior

CPP Corrugated Polypropylene Pipe with a Smooth Interior

X Permitted

QPL Permitted for the producers approved for that diameter in the Department's qualified product list

NA Not Acceptable

| STORM SEWERS (metric) KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE | | | | | | | | | | | | | | | |
|---|--|-----|------|----|-----|-----|--|-----|------|----|---|-----|------|----|--|
| Nominal Diameter mm | Type 5 | | | | | | Type 6 | | | | Type 7 | | | | |
| | Fill Height: Greater than 6 m, not exceeding 7.5 m | | | | | | Fill Height: Greater than 7.5 m, not exceeding 9 m | | | | Fill Height: Greater than 9 m, not exceeding 10.5 m | | | | |
| | RCCP | PVC | CPVC | PE | CPE | CPP | RCCP | PVC | CPVC | PE | RCCP | PVC | CPVC | PE | |
| 250 | NA | X | QPL | X | QPL | NA | NA | X | QPL | X | NA | X | QPL | X | |
| 300 | IV | X | QPL | X | QPL | QPL | V | X | QPL | X | V | X | QPL | X | |
| 375 | IV | X | QPL | NA | NA | QPL | V | X | QPL | NA | V | X | QPL | NA | |
| 450 | IV | X | QPL | X | NA | NA | V | X | QPL | X | V | X | QPL | X | |
| 525 | IV | X | QPL | NA | NA | NA | V | X | QPL | NA | V | X | QPL | NA | |
| 600 | IV | X | QPL | X | NA | NA | V | X | QPL | X | V | X | QPL | X | |
| 675 | IV | X | NA | NA | NA | NA | V | X | NA | NA | V | X | NA | NA | |
| 750 | IV | X | QPL | X | NA | QPL | V | X | QPL | X | V | X | QPL | X | |
| 825 | IV | NA | NA | NA | NA | NA | V | NA | NA | NA | V | NA | NA | NA | |
| 900 | IV | X | QPL | X | NA | NA | V | X | QPL | X | V | X | QPL | X | |
| 1050 | IV | X | NA | X | NA | NA | V | X | NA | X | V | X | NA | X | |
| 1200 | IV | X | NA | X | NA | NA | V | X | NA | X | V | X | NA | X | |
| 1350 | IV | NA | NA | NA | NA | NA | V | NA | NA | NA | V | NA | NA | NA | |
| 1500 | IV | NA | NA | NA | NA | NA | V | NA | NA | NA | V | NA | NA | NA | |
| 1650 | IV | NA | NA | NA | NA | NA | V | NA | NA | NA | V | NA | NA | NA | |
| 1800 | V | NA | NA | NA | NA | NA | V | NA | NA | NA | V | NA | NA | NA | |
| 1950 | 100 | NA | NA | NA | NA | NA | 110 | NA | NA | NA | 130 | NA | NA | NA | |
| 2100 | 100 | NA | NA | NA | NA | NA | 110 | NA | NA | NA | 130 | NA | NA | NA | |
| 2250 | 100 | NA | NA | NA | NA | NA | 110 | NA | NA | NA | 130 | NA | NA | NA | |
| 2400 | 100 | NA | NA | NA | NA | NA | 120 | NA | NA | NA | 130 | NA | NA | NA | |
| 2550 | 100 | NA | NA | NA | NA | NA | 120 | NA | NA | NA | 130 | NA | NA | NA | |
| 2700 | 100 | NA | NA | NA | NA | NA | 120 | NA | NA | NA | 130 | NA | NA | NA | |

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe (RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 25.4 micro-meter crack.)

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe with a Smooth Interior

PE Polyethylene Pipe

CPE Corrugated Polyethylene Pipe with a Smooth Interior

CPP Corrugated Polypropylene Pipe with a Smooth Interior

X Permitted

QPL Permitted for the producers approved for that diameter in the Department's qualified product list

NA Not Acceptable"

Revise the first paragraph of Article 1040.03 of the Standard Specifications to read:

“1040.03 Polyvinyl Chloride (PVC) Pipe. Acceptance testing of PVC pipe and fittings shall be accomplished during the same construction season in which they are installed. The pipe shall meet the following additional requirements.”

Revise Article 1040.04(b) of the Standard Specifications to read:

“(b) Corrugated PE Pipe with a Smooth Interior. The manufacturer shall be listed as compliant through the NTPEP program and the pipe shall be according to AASHTO M 294 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type S or D.”

Revise the first paragraph of Article 1040.04(d) of the Standard Specifications to read:

“(d) PE Pipe with a Smooth Interior. The pipe shall be according to ASTM F 714 (DR 32.5) with a minimum cell classification of PE 335434 as defined in ASTM D 3350.”

Revise the first paragraph of Article 1040.08 of the Standard Specifications to read:

“1040.08 Polypropylene (PP) Pipe. Storage and handling shall be according to the manufacturer's recommendations, except in no case shall the pipe be exposed to direct sunlight for more than six months. Acceptance testing of the pipe shall be accomplished during the same construction season in which it is installed. The pipe shall meet the following additional requirements.”

80434

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: March 2, 2019

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory.

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

CONTRACTOR ASSURANCE. The Contractor makes the following assurance and agrees to include the assurance in each subcontract the Contractor signs with a subcontractor.

The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (a) Withholding progress payments;
- (b) Assessing sanctions;
- (c) Liquidated damages; and/or
- (d) Disqualifying the Contractor from future bidding as non-responsible.

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR Part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a

good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. The determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates, in the absence of unlawful discrimination and in an arena of fair and open competition, DBE companies can be expected to perform 21.00 % of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

- (a) The bidder documents enough DBE participation has been obtained to meet the goal or,
- (b) The bidder documents a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES. Bidders shall consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217) 785-4611, or by visiting the Department's website at:

<http://www.idot.illinois.gov/doing-business/certifications/disadvantaged-business-enterprise-certification/il-ucp-directory/index>.

BIDDING PROCEDURES. Compliance with this Special Provision is a material bidding requirement and failure of the bidder to comply will render the bid not responsive.

The bidder shall submit a DBE Utilization Plan (form SBE 2026), and a DBE Participation Statement (form SBE 2025) for each DBE company proposed for the performance of work to achieve the contract goal, with the bid. If the Utilization Plan indicates the contract goal will not be met, documentation of good faith efforts shall also be submitted. The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor is selected over a DBE for work on the contract. The required forms and documentation must be submitted as a single .pdf file using the "Integrated Contractor Exchange (iCX)" application within the Department's "EBids System".

The Department will not accept a Utilization Plan if it does not meet the bidding procedures set forth herein and the bid will be declared not responsive. In the event the bid is declared not responsive, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty and may deny authorization to bid the project if re-advertised for bids.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan is approved. All information submitted by the bidder must be complete, accurate and adequately document enough DBE participation has been obtained or document the good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. This means the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts the bidder has made. Mere *pro forma* efforts, in other words efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases and will be considered by the Department.
 - (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.
 - (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to perform these work items with its own forces.
 - (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

- (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.
 - b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable. In accordance with the above Bidding Procedures, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.
- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
 - (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
 - (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
 - (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines the bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided it is otherwise eligible for award. If the Department determines the

bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification will also include a statement of reasons for the adverse determination. If the Utilization Plan is not approved because it is deficient as a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no more than a five calendar day period to cure the deficiency.

- (c) The bidder may request administrative reconsideration of an adverse determination by emailing the Department at "DOT.DBE.UP@illinois.gov" within the five calendar days after the receipt of the notification of the determination. The determination shall become final if a request is not made on or before the fifth calendar day. A request may provide additional written documentation or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be reviewed by the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person to consider all issues of documentation and whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR Part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR Part 26.55, the provisions of which govern over the summary contained herein.

- (a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.

- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.

- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:
 - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
 - (2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission is receives as a result of the lease arrangement.

- (e) DBE as a material supplier:
 - (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
 - (2) 100 percent goal credit for the cost of materials of supplies obtained from a DBE manufacturer.
 - (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a DBE regular dealer or DBE manufacturer.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the DBE Participation Commitment Statement.

- (a) NO AMENDMENT. No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be emailed to the Department at DOT.DBE.UP@illinois.gov.
- (b) CHANGES TO WORK. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A or AER 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, a new Request for Approval of Subcontractor will not be required. However, the Contractor must document efforts to assure the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.
- (c) SUBCONTRACT. The Contractor must provide copies of DBE subcontracts to the Department upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.
- (d) ALTERNATIVE WORK METHODS. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:
- (1) The replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
 - (2) The DBE is aware its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
 - (3) The DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.

- (e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in this Special Provision. The Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains the Department's written consent as provided in subsection (a) of this part. Unless Department consent is provided for termination of a DBE subcontractor, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the DBE in the Utilization Plan.

As stated above, the Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor, with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

For purposes of this paragraph, good cause includes the following circumstances:

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the Contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the Contractor's reasonable, nondiscriminatory bond requirements;
- (4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law.

- (6) The Contractor has determined the listed DBE subcontractor is not a responsible contractor;
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides written notice to the Contractor of its withdrawal;
- (8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (9) A DBE owner dies or becomes disabled with the result that the listed DBE subcontractor is unable to complete its work on the contract;
- (10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the Contractor can self-perform the work for which the DBE contractor was engaged or so that the Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated or fails to complete its work on the Contract for any reason, the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal. The good faith efforts shall be documented by the Contractor. If the Department requests documentation under this provision, the Contractor shall submit the documentation within seven days, which may be extended for an additional seven days if necessary at the request of the Contractor. The Department will provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

- (f) FINAL PAYMENT. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than 30 calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Resident Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.
- (g) ENFORCEMENT. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be

made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

- (h) RECONSIDERATION. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of “Good Faith Effort Procedures” of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department. The result of the reconsideration process is not administratively appealable to the U.S. Department of Transportation.

80029

FUEL COST ADJUSTMENT (BDE)

Effective: April 1, 2009

Revised: August 1, 2017

Description. Fuel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in fuel prices when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract. Failure to indicate "Yes" for any category of work will make that category of work exempt from fuel cost adjustment.

General. The fuel cost adjustment shall apply to contract pay items as grouped by category. The adjustment shall only apply to those categories of work checked "Yes", and only when the cumulative plan quantities for a category exceed the required threshold. Adjustments to work items in a category, either up or down, and extra work paid for by agreed unit price will be subject to fuel cost adjustment only when the category representing the added work was subject to the fuel cost adjustment. Extra work paid for at a lump sum price or by force account will not be subject to fuel cost adjustment. Category descriptions and thresholds for application and the fuel usage factors which are applicable to each are as follows:

(a) Categories of Work.

- (1) Category A: Earthwork. Contract pay items performed under Sections 202, 204, and 206 including any modified standard or nonstandard items where the character of the work to be performed is considered earthwork. The cumulative total of all applicable item plan quantities shall exceed 25,000 cu yd (20,000 cu m). Included in the fuel usage factor is a weighted average 0.10 gal/cu yd (0.50 liters/cu m) factor for trucking.
- (2) Category B: Subbases and Aggregate Base Courses. Contract pay items constructed under Sections 311, 312 and 351 including any modified standard or nonstandard items where the character of the work to be performed is considered construction of a subbase or aggregate, stabilized or modified base course. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is a 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
- (3) Category C: Hot-Mix Asphalt (HMA) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 355, 406, 407 and 482 including any modified standard or nonstandard items where the character of the work to be performed is considered HMA bases, pavements and shoulders. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
- (4) Category D: Portland Cement Concrete (PCC) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 353, 420, 421 and 483 including any

modified standard or nonstandard items where the character of the work to be performed is considered PCC base, pavement or shoulder. The cumulative total of all applicable item plan quantities shall exceed 7500 sq yd (6000 sq m). Included in the fuel usage factor is 1.20 gal/cu yd (5.94 liters/cu m) factor for trucking.

- (5) Category E: Structures. Structure items having a cumulative bid price that exceeds \$250,000 for pay items constructed under Sections 502, 503, 504, 505, 512, 516 and 540 including any modified standard or nonstandard items where the character of the work to be performed is considered structure work when similar to that performed under these sections and not included in categories A through D.

(b) Fuel Usage Factors.

| English Units | | |
|--|--------|--------------|
| Category | Factor | Units |
| A - Earthwork | 0.34 | gal / cu yd |
| B - Subbase and Aggregate Base courses | 0.62 | gal / ton |
| C - HMA Bases, Pavements and Shoulders | 1.05 | gal / ton |
| D - PCC Bases, Pavements and Shoulders | 2.53 | gal / cu yd |
| E - Structures | 8.00 | gal / \$1000 |

| Metric Units | | |
|--|--------|---------------------|
| Category | Factor | Units |
| A - Earthwork | 1.68 | liters / cu m |
| B - Subbase and Aggregate Base courses | 2.58 | liters / metric ton |
| C - HMA Bases, Pavements and Shoulders | 4.37 | liters / metric ton |
| D - PCC Bases, Pavements and Shoulders | 12.52 | liters / cu m |
| E - Structures | 30.28 | liters / \$1000 |

(c) Quantity Conversion Factors.

| Category | Conversion | Factor |
|----------|--------------------|--------------------------------------|
| B | sq yd to ton | 0.057 ton / sq yd / in depth |
| | sq m to metric ton | 0.00243 metric ton / sq m / mm depth |
| C | sq yd to ton | 0.056 ton / sq yd / in depth |
| | sq m to metric ton | 0.00239 m ton / sq m / mm depth |
| D | sq yd to cu yd | 0.028 cu yd / sq yd / in depth |
| | sq m to cu m | 0.001 cu m / sq m / mm depth |

Method of Adjustment. Fuel cost adjustments will be computed as follows.

$$CA = (FPI_P - FPI_L) \times FUF \times Q$$

Where: CA = Cost Adjustment, \$
FPI_P = Fuel Price Index, as published by the Department for the month the work is performed, \$/gal (\$/liter)
FPI_L = Fuel Price Index, as published by the Department for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price, \$/gal (\$/liter)
FUF = Fuel Usage Factor in the pay item(s) being adjusted
Q = Authorized construction Quantity, tons (metric tons) or cu yd (cu m)

The entire FUF indicated in paragraph (b) will be used regardless of use of trucking to perform the work.

Basis of Payment. Fuel cost adjustments may be positive or negative but will only be made when there is a difference between the FPI_L and FPI_P in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(FPI_L - FPI_P) \div FPI_L\} \times 100$$

Fuel cost adjustments will be calculated for each calendar month in which applicable work is performed; and will be paid or deducted when all other contract requirements for the items of work are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

80229

PERFORMANCE GRADED ASPHALT BINDER (BDE)

Effective: January 1, 2023

Revise Article 1032.05 of the Standard Specifications to read:

“1032.05 Performance Graded Asphalt Binder. These materials will be accepted according to the Bureau of Materials Policy Memorandum, “Performance Graded Asphalt Binder Qualification Procedure.” The Department will maintain a qualified producer list. These materials shall be free from water and shall not foam when heated to any temperature below the actual flash point. Air blown asphalt, recycle engine oil bottoms (ReOB), and polyphosphoric acid (PPA) modification shall not be used.

When requested, producers shall provide the Engineer with viscosity/temperature relationships for the performance graded asphalt binders delivered and incorporated in the work.

- (a) Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 “Standard Specification for Performance Graded Asphalt Binder” for the grade shown on the plans and the following.

| Test | Parameter |
|---|------------|
| Small Strain Parameter (AASHTO PP 113) BBR, ΔT_c , 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs) | -5 °C min. |

- (b) Modified Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 “Standard Specification for Performance Graded Asphalt Binder” for the grade shown on the plans.

Asphalt binder modification shall be performed at the source, as defined in the Bureau of Materials Policy Memorandum, “Performance Graded Asphalt Binder Qualification Procedure.”

Modified asphalt binder shall be safe to handle at asphalt binder production and storage temperatures or HMA construction temperatures. Safety Data Sheets (SDS) shall be provided for all asphalt modifiers.

- (1) Polymer Modification (SB/SBS or SBR). Elastomers shall be added to the base asphalt binder to achieve the specified performance grade and shall be either a styrene-butadiene diblock, triblock copolymer without oil extension, or a styrene-butadiene rubber. The polymer modified asphalt binder shall be smooth, homogeneous, and be according to the requirements shown in Table 1 or 2 for the grade shown on the plans.

| Table 1 - Requirements for Styrene-Butadiene Copolymer (SB/SBS) Modified Asphalt Binders | | |
|---|---|---|
| Test | Asphalt Grade SB/SBS PG 64-28 SB/SBS PG 70-22 | Asphalt Grade SB/SBS PG 64-34 SB/SBS PG 70-28 SB/SBS PG 76-22 SB/SBS PG 76-28 |
| Separation of Polymer ITP, "Separation of Polymer from Asphalt Binder" Difference in °F (°C) of the softening point between top and bottom portions | 4 (2) max. | 4 (2) max. |
| TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240) | | |
| Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, % | 60 min. | 70 min. |

| Table 2 - Requirements for Styrene-Butadiene Rubber (SBR) Modified Asphalt Binders | | |
|---|---|---|
| Test | Asphalt Grade SBR PG 64-28 SBR PG 70-22 | Asphalt Grade SB/SBS PG 64-34 SB/SBS PG 70-28 SBR PG 76-22 SBR PG 76-28 |
| Separation of Polymer ITP, "Separation of Polymer from Asphalt Binder" Difference in °F (°C) of the softening point between top and bottom portions | 4 (2) max. | 4 (2) max. |
| Toughness ASTM D 5801, 77 °F (25 °C), 20 in./min. (500 mm/min.), in.-lbs (N-m) | 110 (12.5) min. | 110 (12.5) min. |
| Tenacity ASTM D 5801, 77 °F (25 °C), 20 in./min. (500 mm/min.), in.-lbs (N-m) | 75 (8.5) min. | 75 (8.5) min. |
| TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240) | | |
| Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, % | 40 min. | 50 min. |

- (2) Ground Tire Rubber (GTR) Modification. GTR modification is the addition of recycled ground tire rubber to liquid asphalt binder to achieve the specified performance grade. GTR shall be produced from processing automobile and/or truck tires by the ambient

grinding method or micronizing through a cryogenic process. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall not contain free metal particles, moisture that would cause foaming of the asphalt, or other foreign materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois Modified AASHTO T 27 “Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates” or AASHTO PP 74 “Standard Practice for Determination of Size and Shape of Glass Beads Used in Traffic Markings by Means of Computerized Optical Method”, a 50 g sample of the GTR shall conform to the following gradation requirements.

| Sieve Size | Percent Passing |
|------------------|-----------------|
| No. 16 (1.18 mm) | 100 |
| No. 30 (600 µm) | 95 ± 5 |
| No. 50 (300 µm) | > 20 |

GTR modified asphalt binder shall be tested for rotational viscosity according to AASHTO T 316 using spindle S27. GTR modified asphalt binder shall be tested for original dynamic shear and RTFO dynamic shear according to AASHTO T 315 using a gap of 2 mm.

The GTR modified asphalt binder shall meet the requirements of Table 3.

| Table 3 - Requirements for Ground Tire Rubber (GTR) Modified Asphalt Binders | | |
|--|---|---|
| Test | Asphalt Grade GTR PG 64-28 GTR PG 70-22 | Asphalt Grade GTR PG 76-22 GTR PG 76-28 GTR PG 70-28 |
| TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240) | | |
| Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, % | 60 min. | 70 min. |

- (3) Softener Modification (SM). Softener modification is the addition of organic compounds, such as engineered flux, bio-oil blends, modified vegetable oils, glycol amines, and fatty acid derivatives, to the base asphalt binder to achieve the specified performance grade. Softeners shall be dissolved, dispersed, or reacted in the asphalt binder to enhance its performance and shall remain compatible with the asphalt binder with no separation. Softeners shall not be added to modified PG asphalt binder as defined in Articles 1032.05(b)(1) or 1032.05(b)(2).

An Attenuated Total Reflectance-Fourier Transform Infrared spectrum (ATR-FTIR) shall be collected for both the softening compound as well as the softener modified

asphalt binder at the dose intended for qualification. The ATR-FTIR spectra shall be collected on unaged softener modified binder, 20-hour Pressurized Aging Vessel (PAV) aged softener modified binder, and 40-hour PAV aged softener modified binder. The ATR-FTIR shall be collected in accordance with Illinois Test Procedure 601. The electronic files spectral files (in one of the following extensions or equivalent: *.SPA, *.SPG, *.IRD, *.IFG, *.CSV, *.SP, *.IRS, *.GAML, *. [0-9], *.IGM, *.ABS, *.DRT, *.SBM, *.RAS) shall be submitted to the Central Bureau of Materials.

Softener modified asphalt binders shall meet the requirements in Table 4.

| Test | Asphalt Grade | |
|--|---------------|-------------|
| | SM PG 46-28 | SM PG 46-34 |
| | SM PG 52-28 | SM PG 52-34 |
| | SM PG 58-22 | SM PG 58-28 |
| | SM PG 64-22 | |
| Small Strain Parameter (AASHTO PP 113) BBR, ΔT_c , 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs) | -5°C min. | |
| Large Strain Parameter (Illinois Modified AASHTO T 391) DSR/LAS Fatigue Property, $\Delta G^* _{peak}$, 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs) | ≥ 54 % | |

The following grades may be specified as tack coats.

| Asphalt Grade | Use |
|------------------------------|-----------|
| PG 58-22, PG 58-28, PG 64-22 | Tack Coat |

Revise Article 1031.06(c)(1) and 1031.06(c)(2) of the Standard Specifications to read:

“(1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin ABR shall not exceed the amounts listed in the following table.

| Ndesign | Binder | Surface | Polymer Modified Binder or Surface ^{3/} |
|---------|--------|---------|--|
| 30 | 30 | 30 | 10 |
| 50 | 25 | 15 | 10 |
| 70 | 15 | 10 | 10 |
| 90 | 10 | 10 | 10 |

1/ For Low ESAL HMA shoulder and stabilized subbase, the RAP/RAS ABR shall not exceed 50 percent of the mixture.

- 2/ When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).
 - 3/ The maximum ABR percentages for ground tire rubber (GTR) modified mixes shall be equivalent to the percentages specified for SBS/SBR polymer modified mixes.
- (2) FRAP/RAS. When FRAP is used alone or FRAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the following table.

| HMA Mixtures - FRAP/RAS Maximum ABR % ^{1/2/} | | | |
|---|--------|---------|--|
| Ndesign | Binder | Surface | Polymer Modified Binder or Surface ^{3/} |
| 30 | 55 | 45 | 15 |
| 50 | 45 | 40 | 15 |
| 70 | 45 | 35 | 15 |
| 90 | 45 | 35 | 15 |
| SMA | -- | -- | 25 |
| IL-4.75 | -- | -- | 35 |

- 1/ For Low ESAL HMA shoulder and stabilized subbase, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When FRAP/RAS ABR exceeds 20 percent for all mixes, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).
- 3/ The maximum ABR percentages for GTR modified mixes shall be equivalent to the percentages specified for SBS/SBR polymer modified mixes.”

Add the following to the end of Note 2 of Article 1030.03 of the Standard Specifications.

“A dedicated storage tank for the ground tire rubber (GTR) modified asphalt binder shall be provided. This tank shall be capable of providing continuous mechanical mixing throughout and/or recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ±0.40 percent.”

PORTLAND CEMENT CONCRETE (BDE)

Effective: August 1, 2023

Revise the second paragraph of Article 1103.03(a)(4) the Standard Specifications to read:

“The dispenser system shall provide a visual indication that the liquid admixture is actually entering the batch, such as via a transparent or translucent section of tubing or by independent check with an integrated secondary metering device. If approved by the Engineer, an alternate indicator may be used for admixtures dosed at rates of 25 oz/cwt (1630 mL/100 kg) or greater, such as accelerating admixtures, corrosion inhibitors, and viscosity modifying admixtures.”

80451

SEEDING (BDE)

Effective: November 1, 2022

Revise Article 250.07 of the Standard Specifications to read:

“250.07 Seeding Mixtures. The classes of seeding mixtures and combinations of mixtures will be designated in the plans.

When an area is to be seeded with two or more seeding classes, those mixtures shall be applied separately on the designated area within a seven day period. Seeding shall occur prior to placement of mulch cover. A Class 7 mixture can be applied at any time prior to applying any seeding class or added to them and applied at the same time.

| TABLE 1 - SEEDING MIXTURES | | |
|---|---|----------------------|
| Class - Type | Seeds | lb/acre (kg/hectare) |
| 1 Lawn Mixture 1/ | Kentucky Bluegrass | 100 (110) |
| | Perennial Ryegrass | 60 (70) |
| | <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue) | 40 (50) |
| 1A Salt Tolerant Lawn Mixture 1/ | Kentucky Bluegrass | 60 (70) |
| | Perennial Ryegrass | 20 (20) |
| | <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue) | 20 (20) |
| | <i>Festuca brevipilla</i> (Hard Fescue) | 20 (20) |
| | <i>Puccinellia distans</i> (Fulfs Saltgrass or Salty Alkaligrass) | 60 (70) |
| 1B Low Maintenance Lawn Mixture 1/ | Turf-Type Fine Fescue 3/ | 150 (170) |
| | Perennial Ryegrass | 20 (20) |
| | Red Top | 10 (10) |
| | <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue) | 20 (20) |
| 2 Roadside Mixture 1/ | <i>Lolium arundinaceum</i> (Tall Fescue) | 100 (110) |
| | Perennial Ryegrass | 50 (55) |
| | <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue) | 40 (50) |
| | Red Top | 10 (10) |
| 2A Salt Tolerant Roadside Mixture 1/ | <i>Lolium arundinaceum</i> (Tall Fescue) | 60 (70) |
| | Perennial Ryegrass | 20 (20) |
| | <i>Festuca rubra</i> ssp. <i>rubra</i> (Creeping Red Fescue) | 30 (20) |
| | <i>Festuca brevipila</i> (Hard Fescue) | 30 (20) |
| | <i>Puccinellia distans</i> (Fulfs Saltgrass or Salty Alkaligrass) | 60 (70) |
| 3 Northern Illinois Slope Mixture 1/ | <i>Elymus canadensis</i> (Canada Wild Rye) 5/ | 5 (5) |
| | Perennial Ryegrass | 20 (20) |
| | Alsike Clover 4/ | 5 (5) |
| | <i>Desmanthus illinoensis</i> (Illinois Bundleflower) 4/ 5/ | 2 (2) |
| | <i>Schizachyrium scoparium</i> (Little Bluestem) 5/ | 12 (12) |
| | <i>Bouteloua curtipendula</i> (Side-Oats Grama) 5/ | 10 (10) |
| | <i>Puccinellia distans</i> (Fulfs Saltgrass or Salty Alkaligrass) | 30 (35) |
| | Oats, Spring | 50 (55) |
| | Slender Wheat Grass 5/ | 15 (15) |
| | Buffalo Grass 5/ 7/ | 5 (5) |
| | 3A Southern Illinois Slope Mixture 1/ | Perennial Ryegrass |
| <i>Elymus canadensis</i> (Canada Wild Rye) 5/ | | 20 (20) |
| <i>Panicum virgatum</i> (Switchgrass) 5/ | | 10 (10) |
| <i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ | | 12 (12) |
| <i>Bouteloua curtipendula</i> (Side-Oats Grama) 5/ | | 10 (10) |
| <i>Dalea candida</i> (White Prairie Clover) 4/ 5/ | | 5 (5) |
| <i>Rudbeckia hirta</i> (Black-Eyed Susan) 5/ | | 5 (5) |
| Oats, Spring | | 50 (55) |

| Class – Type | Seeds | lb/acre (kg/hectare) |
|--|---|---|
| 4 Native Grass 2/ 6/ | <i>Andropogon gerardi</i> (Big Blue Stem) 5/ | 4 (4) |
| | <i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ | 5 (5) |
| | <i>Bouteloua curtipendula</i> (Side-Oats Grama) 5/ | 5 (5) |
| | <i>Elymus canadensis</i> (Canada Wild Rye) 5/ | 1 (1) |
| | <i>Panicum virgatum</i> (Switch Grass) 5/ | 1 (1) |
| | <i>Sorghastrum nutans</i> (Indian Grass) 5/ | 2 (2) |
| | Annual Ryegrass | 25 (25) |
| | Oats, Spring | 25 (25) |
| | Perennial Ryegrass | 15 (15) |
| | 4A Low Profile Native Grass 2/ 6/ | <i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ |
| <i>Bouteloua curtipendula</i> (Side-Oats Grama) 5/ | | 5 (5) |
| <i>Elymus canadensis</i> (Canada Wild Rye) 5/ | | 1 (1) |
| <i>Sporobolus heterolepis</i> (Prairie Dropseed) 5/ | | 0.5 (0.5) |
| Annual Ryegrass | | 25 (25) |
| Oats, Spring | | 25 (25) |
| Perennial Ryegrass | | 15 (15) |
| 4B Wetland Grass and Sedge Mixture 2/ 6/ | Annual Ryegrass | 25 (25) |
| | Oats, Spring | 25 (25) |
| | Wetland Grasses (species below) 5/ | 6 (6) |
| <u>Species:</u> | | <u>% By Weight</u> |
| <i>Calamagrostis canadensis</i> (Blue Joint Grass) | | 12 |
| <i>Carex lacustris</i> (Lake-Bank Sedge) | | 6 |
| <i>Carex slipata</i> (Awl-Fruited Sedge) | | 6 |
| <i>Carex stricta</i> (Tussock Sedge) | | 6 |
| <i>Carex vulpinoidea</i> (Fox Sedge) | | 6 |
| <i>Eleocharis acicularis</i> (Needle Spike Rush) | | 3 |
| <i>Eleocharis obtusa</i> (Blunt Spike Rush) | | 3 |
| <i>Glyceria striata</i> (Fowl Manna Grass) | | 14 |
| <i>Juncus effusus</i> (Common Rush) | | 6 |
| <i>Juncus tenuis</i> (Slender Rush) | | 6 |
| <i>Juncus torreyi</i> (Torrey's Rush) | | 6 |
| <i>Leersia oryzoides</i> (Rice Cut Grass) | | 10 |
| <i>Scirpus acutus</i> (Hard-Stemmed Bulrush) | | 3 |
| <i>Scirpus atrovirens</i> (Dark Green Rush) | | 3 |
| <i>Bolboschoenus fluviatilis</i> (River Bulrush) | | 3 |
| <i>Schoenoplectus tabernaemontani</i> (Softstem Bulrush) | | 3 |
| <i>Spartina pectinata</i> (Cord Grass) | | 4 |

| Class – Type | Seeds | lb/acre (kg/hectare) |
|--------------|---|---|
| 5 | Forb with Annuals Mixture 2/ 5/ 6/ | Annuals Mixture (Below) Forb Mixture (Below) |
| | | 1 (1) 10 (10) |
| | Annuals Mixture - Mixture not exceeding 25 % by weight of any one species, of the following: | |
| | <i>Coreopsis lanceolata</i> (Sand Coreopsis) <i>Leucanthemum maximum</i> (Shasta Daisy) <i>Gaillardia pulchella</i> (Blanket Flower) <i>Ratibida columnifera</i> (Prairie Coneflower) <i>Rudbeckia hirta</i> (Black-Eyed Susan) | |
| | Forb Mixture - Mixture not exceeding 5 % by weight PLS of any one species, of the following: | |
| | <i>Amorpha canescens</i> (Lead Plant) 4/ <i>Anemone cylindrica</i> (Thimble Weed) <i>Asclepias tuberosa</i> (Butterfly Weed) <i>Aster azureus</i> (Sky Blue Aster) <i>Symphotrichum leave</i> (Smooth Aster) <i>Aster novae-angliae</i> (New England Aster) <i>Baptisia leucantha</i> (White Wild Indigo) 4/ <i>Coreopsis palmata</i> (Prairie Coreopsis) <i>Echinacea pallida</i> (Pale Purple Coneflower) <i>Eryngium yuccifolium</i> (Rattlesnake Master) <i>Helianthus mollis</i> (Downy Sunflower) <i>Heliopsis helianthoides</i> (Ox-Eye) <i>Liatris aspera</i> (Rough Blazing Star) <i>Liatris pycnostachya</i> (Prairie Blazing Star) <i>Monarda fistulosa</i> (Prairie Bergamot) <i>Parthenium integrifolium</i> (Wild Quinine) <i>Dalea candida</i> (White Prairie Clover) 4/ <i>Dalea purpurea</i> (Purple Prairie Clover) 4/ <i>Physostegia virginiana</i> (False Dragonhead) <i>Potentilla arguta</i> (Prairie Cinquefoil) <i>Ratibida pinnata</i> (Yellow Coneflower) <i>Rudbeckia subtomentosa</i> (Fragrant Coneflower) <i>Silphium laciniatum</i> (Compass Plant) <i>Silphium terebinthinaceum</i> (Prairie Dock) <i>Oligoneuron rigidum</i> (Rigid Goldenrod) <i>Tradescantia ohiensis</i> (Spiderwort) <i>Veronicastrum virginicum</i> (Culver's Root) | |

| Class – Type | Seeds | lb/acre (kg/hectare) |
|---|--|--|
| 5A Large Flower Native Forb Mixture 2/ 5/ 6/ | Forb Mixture (see below) | 5 (5) |
| | <u>Species:</u> | <u>% By Weight</u> |
| | <i>Aster novae-angliae</i> (New England Aster) | 5 |
| | <i>Echinacea pallida</i> (Pale Purple Coneflower) | 10 |
| | <i>Helianthus mollis</i> (Downy Sunflower) | 10 |
| | <i>Heliopsis helianthoides</i> (Ox-Eye) | 10 |
| | <i>Liatris pycnostachya</i> (Prairie Blazing Star) | 10 |
| | <i>Ratibida pinnata</i> (Yellow Coneflower) | 5 |
| | <i>Rudbeckia hirta</i> (Black-Eyed Susan) | 10 |
| | <i>Silphium laciniatum</i> (Compass Plant) | 10 |
| | <i>Silphium terebinthinaceum</i> (Prairie Dock) | 20 |
| | <i>Oligoneuron rigidum</i> (Rigid Goldenrod) | 10 |
| 5B Wetland Forb 2/ 5/ 6/ | Forb Mixture (see below) | 2 (2) |
| | <u>Species:</u> | <u>% By Weight</u> |
| | <i>Acorus calamus</i> (Sweet Flag) | 3 |
| | <i>Angelica atropurpurea</i> (Angelica) | 6 |
| | <i>Asclepias incarnata</i> (Swamp Milkweed) | 2 |
| | <i>Aster puniceus</i> (Purple Stemmed Aster) | 10 |
| | <i>Bidens cernua</i> (Beggarticks) | 7 |
| | <i>Eutrochium maculatum</i> (Spotted Joe Pye Weed) | 7 |
| | <i>Eupatorium perfoliatum</i> (Boneset) | 7 |
| | <i>Helenium autumnale</i> (Autumn Sneezeweed) | 2 |
| | <i>Iris virginica shrevei</i> (Blue Flag Iris) | 2 |
| | <i>Lobelia cardinalis</i> (Cardinal Flower) | 5 |
| | <i>Lobelia siphilitica</i> (Great Blue Lobelia) | 5 |
| | <i>Lythrum alatum</i> (Winged Loosestrife) | 2 |
| | <i>Physostegia virginiana</i> (False Dragonhead) | 5 |
| | <i>Persicaria pensylvanica</i> (Pennsylvania Smartweed) | 10 |
| | <i>Persicaria lapathifolia</i> (Curlytop Knotweed) | 10 |
| | <i>Pycnanthemum virginianum</i> (Mountain Mint) | 5 |
| | <i>Rudbeckia laciniata</i> (Cut-leaf Coneflower) | 5 |
| | <i>Oligoneuron riddellii</i> (Riddell Goldenrod) | 2 |
| | <i>Sparganium eurycarpum</i> (Giant Burreed) | 5 |
| 6 Conservation Mixture 2/ 6/ | <i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ <i>Elymus canadensis</i> (Canada Wild Rye) 5/ Buffalo Grass 5/ 7/ Vernal Alfalfa 4/ Oats, Spring | 5 (5) 2 (2) 5 (5) 15 (15) 48 (55) |
| 6A Salt Tolerant Conservation Mixture 2/ 6/ | <i>Schizachyrium scoparium</i> (Little Blue Stem) 5/ <i>Elymus canadensis</i> (Canada Wild Rye) 5/ Buffalo Grass 5/ 7/ Vernal Alfalfa 4/ Oats, Spring <i>Puccinellia distans</i> (Fults Saltgrass or Salty Alkaligrass) | 5 (5) 2 (2) 5 (5) 15 (15) 48 (55) 20 (20) |
| 7 Temporary Turf Cover Mixture | Perennial Ryegrass Oats, Spring | 50 (55) 64 (70) |

Notes:

- 1/ Seeding shall be performed when the ambient temperature has been between 45 °F (7 °C) and 80 °F (27 °C) for a minimum of seven (7) consecutive days and is forecasted to be the same for the next five (5) days according to the National Weather Service.
- 2/ Seeding shall be performed in late fall through spring beginning when the ambient temperature has been below 45 °F (7 °C) for a minimum of seven (7) consecutive days and ending when the ambient temperature exceeds 80 °F (27 °C) according to the National Weather Service.
- 3/ Specific variety as shown in the plans or approved by the Engineer.
- 4/ Inoculation required.
- 5/ Pure Live Seed (PLS) shall be used.
- 6/ Fertilizer shall not be used.
- 7/ Seed shall be primed with KNO_3 to break dormancy and dyed to indicate such.

Seeding will be inspected after a period of establishment. The period of establishment shall be six (6) months minimum, but not to exceed nine (9) months. After the period of establishment, areas not exhibiting 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost to the Department.”

80445

SOURCE OF SUPPLY AND QUALITY REQUIREMENTS (BDE)

Effective: January 2, 2023

Add the following to Article 106.01 of the Standard Specifications:

“The final manufacturing process for construction materials and the immediately preceding manufacturing stage for construction materials shall occur within the United States. Construction materials shall include an article, material, or supply that is or consists primarily of the following.

- (a) Non-ferrous metals;
- (b) Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- (c) Glass (including optic glass);
- (d) Lumber;
- (e) Drywall.

Items consisting of two or more of the listed construction materials that have been combined through a manufacturing process, and items including at least one of the listed materials combined with a material that is not listed through a manufacturing process shall be exempt.”

80448

STEEL COST ADJUSTMENT (BDE)

Effective: April 2, 2004

Revised: January 1, 2022

Description. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment.

Types of Steel Products. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

- Metal Piling (excluding temporary sheet piling)
- Structural Steel
- Reinforcing Steel

Other steel materials such as dowel bars, tie bars, welded reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), and frames and grates will be subject to a steel cost adjustment when the pay items they are used in have a contract value of \$10,000 or greater.

The adjustments shall apply to the above items when they are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply when the item is added as extra work and paid for at a lump sum price or by force account.

Documentation. Sufficient documentation shall be furnished to the Engineer to verify the following:

- (a) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.
- (b) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

$$SCA = Q \times D$$

Where: SCA = steel cost adjustment, in dollars
Q = quantity of steel incorporated into the work, in lb (kg)
D = price factor, in dollars per lb (kg)

$$D = MPI_M - MPI_L$$

Where: MPI_M = The Materials Cost Index for steel as published by the Engineering News-Record for the month the steel is shipped from the mill. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

MPI_L = The Materials Cost Index for steel as published by the Engineering News-Record for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price,. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

The unit weights (masses) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the MPI_M will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

Basis of Payment. Steel cost adjustments may be positive or negative but will only be made when there is a difference between the MPI_L and MPI_M in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(MPI_L - MPI_M) \div MPI_L\} \times 100$$

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Attachment

| Item | Unit Mass (Weight) |
|---|---|
| Metal Piling (excluding temporary sheet piling) Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness) Furnishing Metal Pile Shells 12 in. (305 mm), 0.250 in. (6.35 mm) wall thickness) Furnishing Metal Pile Shells 14 in. (356 mm), 0.250 in. (6.35 mm) wall thickness) Other piling | 23 lb/ft (34 kg/m) 32 lb/ft (48 kg/m) 37 lb/ft (55 kg/m) See plans |
| Structural Steel | See plans for weights (masses) |
| Reinforcing Steel | See plans for weights (masses) |
| Dowel Bars and Tie Bars | 6 lb (3 kg) each |
| Welded Reinforcement | 63 lb/100 sq ft (310 kg/sq m) |
| Guardrail Steel Plate Beam Guardrail, Type A w/steel posts Steel Plate Beam Guardrail, Type B w/steel posts Steel Plate Beam Guardrail, Types A and B w/wood posts Steel Plate Beam Guardrail, Type 2 Steel Plate Beam Guardrail, Type 6 Traffic Barrier Terminal, Type 1 Special (Tangent) Traffic Barrier Terminal, Type 1 Special (Flared) | 20 lb/ft (30 kg/m) 30 lb/ft (45 kg/m) 8 lb/ft (12 kg/m) 305 lb (140 kg) each 1260 lb (570 kg) each 730 lb (330 kg) each 410 lb (185 kg) each |
| Steel Traffic Signal and Light Poles, Towers and Mast Arms Traffic Signal Post Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 - 12 m) Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 - 16.5 m) Light Pole w/Mast Arm, 30 - 50 ft (9 - 15.2 m) Light Pole w/Mast Arm, 55 - 60 ft (16.5 - 18 m) Light Tower w/Luminaire Mount, 80 - 110 ft (24 - 33.5 m) Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 - 42.5 m) Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 - 48.5 m) | 11 lb/ft (16 kg/m) 14 lb/ft (21 kg/m) 21 lb/ft (31 kg/m) 13 lb/ft (19 kg/m) 19 lb/ft (28 kg/m) 31 lb/ft (46 kg/m) 65 lb/ft (97 kg/m) 80 lb/ft (119 kg/m) |
| Metal Railings (excluding wire fence) Steel Railing, Type SM Steel Railing, Type S-1 Steel Railing, Type T-1 Steel Bridge Rail | 64 lb/ft (95 kg/m) 39 lb/ft (58 kg/m) 53 lb/ft (79 kg/m) 52 lb/ft (77 kg/m) |
| Frames and Grates Frame Lids and Grates | 250 lb (115 kg) 150 lb (70 kg) |

80127

SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE)

Effective: April 2, 2018

Add the following to Section 109 of the Standard Specifications.

“109.14 Subcontractor and Disadvantaged Business Enterprise Payment Reporting.
The Contractor shall report all payments made to the following parties:

- (a) first tier subcontractors;
- (b) lower tier subcontractors affecting disadvantaged business enterprise (DBE) goal credit;
- (c) material suppliers or trucking firms that are part of the Contractor’s submitted DBE utilization plan.

The report shall be made through the Department’s on-line subcontractor payment reporting system within 21 days of making the payment.”

80397

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: November 2, 2017

Revised: April 1, 2019

Replace the second paragraph of Article 109.12 of the Standard Specifications with the following:

“This mobilization payment shall be made at least seven days prior to the subcontractor starting work. The amount paid shall be at the following percentage of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor’s work.

| Value of Subcontract Reported on Form BC 260A | Mobilization Percentage |
|---|-------------------------|
| Less than \$10,000 | 25% |
| \$10,000 to less than \$20,000 | 20% |
| \$20,000 to less than \$40,000 | 18% |
| \$40,000 to less than \$60,000 | 16% |
| \$60,000 to less than \$80,000 | 14% |
| \$80,000 to less than \$100,000 | 12% |
| \$100,000 to less than \$250,000 | 10% |
| \$250,000 to less than \$500,000 | 9% |
| \$500,000 to \$750,000 | 8% |
| Over \$750,000 | 7%” |

80391

SUBMISSION OF PAYROLL RECORDS (BDE)

Effective: April 1, 2021

Revised: November 1, 2022

FEDERAL AID CONTRACTS. Revise the following section of Check Sheet #1 of the Recurring Special Provisions to read:

“STATEMENTS AND PAYROLLS

The payroll records shall include the worker’s name, the worker’s address, the worker’s telephone number when available, the worker’s social security number, the worker’s classification or classifications, the worker’s gross and net wages paid in each pay period, the worker’s number of hours worked each day, and the worker’s starting and ending times of work each day. However, any Contractor or subcontractor who remits contributions to a fringe benefit fund that is not jointly maintained and jointly governed by one or more employers and one or more labor organization must additionally submit the worker’s hourly wage rate, the worker’s hourly overtime wage rate, the worker’s hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit, if applicable.

The Contractor and each subcontractor shall certify and submit payroll records to the Department each week from the start to the completion of their respective work, except that full social security numbers shall not be included on weekly submittals. Instead, the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee’s social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted. The submittals shall be made using LCPTracker Pro software. The software is web-based and can be accessed at <https://lcptracker.com/>. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate option (“No Work”, “Suspended”, or “Complete”) selected.”

STATE CONTRACTS. Revise Item 3 of Section IV of Check Sheet #5 of the Recurring Special Provisions to read:

- “3. Submission of Payroll Records. The Contractor and each subcontractor shall, no later than the 15th day of each calendar month, file a certified payroll for the immediately preceding month to the Illinois Department of Labor (IDOL) through the Illinois Prevailing Wage Portal in compliance with the State Prevailing Wage Act (820 ILCS 130). The portal can be found on the IDOL website at <https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/Prevailing-Wage-Portal.aspx>. Payrolls shall be submitted in the format prescribed by the IDOL.

In addition to filing certified payroll(s) with the IDOL, the Contractor and each subcontractor shall certify and submit payroll records to the Department each week from the start to the completion of their respective work, except that full social security numbers shall not be included on weekly submittals. Instead, the payrolls shall include an

identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted. The submittals shall be made using LCPtracker Pro software. The software is web-based and can be accessed at <https://lcptracker.com/>. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate option ("No Work", "Suspended", or "Complete") selected."

80437

TRAINING SPECIAL PROVISIONS (BDE) This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be 1 . In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

METHOD OF MEASUREMENT The unit of measurement is in hours.

BASIS OF PAYMENT This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

20338

VEHICLE AND EQUIPMENT WARNING LIGHTS (BDE)

Effective: November 1, 2021

Revised: November 1, 2022

Add the following paragraph after the first paragraph of Article 701.08 of the Standard Specifications:

“The Contractor shall equip all vehicles and equipment with high-intensity oscillating, rotating, or flashing, amber or amber-and-white, warning lights which are visible from all directions. In accordance with 625 ILCS 5/12-215, the lights may only be in operation while the vehicle or equipment is engaged in construction operations.”

80439

WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012

Revised: November 1, 2021

The Contractor shall submit a weekly report of Disadvantaged Business Enterprise (DBE) trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) that are used for DBE goal credit.

The report shall be submitted to the Engineer on Department form "SBE 723" within ten business days following the reporting period. The reporting period shall be Sunday through Saturday for each week reportable trucking activities occur.

Any costs associated with providing weekly DBE trucking reports shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

80302

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020

Add the following to Article 701.03 of the Standard Specifications:

“(q) Temporary Sign Supports 1106.02”

Revise the third paragraph of Article 701.14 of the Standard Specifications to read:

“For temporary sign supports, the Contractor shall provide a FHWA eligibility letter for each device used on the contract. The letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device. The signs shall be supported within 20 degrees of vertical. Weights used to stabilize signs shall be attached to the sign support per the manufacturer’s specifications.”

Revise the first paragraph of Article 701.15 of the Standard Specifications to read:

“**701.15 Traffic Control Devices.** For devices that must meet crashworthiness standards, the Contractor shall provide a manufacturer’s self-certification or a FHWA eligibility letter for each Category 1 device and a FHWA eligibility letter for each Category 2 and Category 3 device used on the contract. The self-certification or letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device.”

Revise the first six paragraphs of Article 1106.02 of the Standard Specifications to read:

“**1106.02 Devices.** Work zone traffic control devices and combinations of devices shall meet crashworthiness standards for their respective categories. The categories are as follows.

Category 1 includes small, lightweight, channelizing and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, plastic drums, and delineators, with no attachments (e.g. lights). Category 1 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 1 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2024.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include vertical panels with lights, barricades, temporary sign supports, and Category 1 devices with attachments (e.g. drums with lights). Category 2 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 2 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2024.

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions (impact

attenuators), truck mounted attenuators, and other devices not meeting the definitions of Category 1 or 2. Category 3 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 3 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2029. Category 3 devices shall be crash tested for Test Level 3 or the test level specified.

Category 4 includes portable or trailer-mounted devices such as arrow boards, changeable message signs, temporary traffic signals, and area lighting supports. It is preferable for Category 4 devices manufactured after December 31, 2019 to be MASH-16 compliant; however, there are currently no crash tested devices in this category, so it remains exempt from the NCHRP 350 or MASH compliance requirement.

For each type of device, when no more than one MASH-16 compliant is available, an NCHRP 350 or MASH-2009 compliant device may be used, even if manufactured after December 31, 2019.”

Revise Articles 1106.02(g), 1106.02(k), and 1106.02(l) to read:

“(g) Truck Mounted/Trailer Mounted Attenuators. The attenuator shall be approved for use at Test Level 3. Test Level 2 may be used for normal posted speeds less than or equal to 45 mph.

(k) Temporary Water Filled Barrier. The water filled barrier shall be a lightweight plastic shell designed to accept water ballast and be on the Department’s qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings.

(l) Movable Traffic Barrier. The movable traffic barrier shall be on the Department’s qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings. The barrier shall be capable of being moved on and off the roadway on a daily basis.”

80427

WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within 50 working days.

80071

MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES

Effective: October 4, 2016

Revised: March 1, 2019

Description. This work shall consist of furnishing and placing a membrane waterproofing system on the top slab and sidewalls, or portions thereof, for buried structures as detailed on the contract plans.

All membrane waterproofing systems shall be supplied by qualified producers. The Department will maintain a list of qualified producers.

Materials. The materials used in the waterproofing system shall consist of the following.

- (a) Cold-applied, self-adhering rubberized asphalt/polyethylene membrane sheet with the following properties:

| Physical Properties | |
|--|--|
| Thickness ASTM D 1777 or D 3767 | 60 mils (1.500 mm) min. |
| Width | 36 inches (914 mm) min. |
| Tensile Strength, Film ASTM D 882 | 5000 lb./in ² (34.5 MPa) min. |
| Pliability [180° bend over 1" inch (25 mm) mandrel @ -20 °F (-29 °C)] ASTM D 146 (Modified) or D1970 | No Effect |
| Puncture Resistance-Membrane ASTM E 154 | 40 lb. (178 N) min. |
| Permeability (Perms) ASTM E 96, Method B | 0.1 max. |
| Water Absorption (% by Weight) ASTM D 570 | 0.2 max. |
| Peel Strength ASTM D 903 | 9 lb./in (1576 N/m) min. |

- (b) Ancillary Materials: Adhesives, Conditioners, Primers, Mastic, Two-Part Liquid Membranes, and Sealing Tapes as required by the manufacturer of the membrane and film for use with the respective membrane waterproofing system.

Construction. The areas requiring waterproofing shall be prepared and the waterproofing shall be installed in accordance with the manufacturer's instructions. The Contractor shall not install any part of a membrane waterproofing system in wet conditions, or if the ambient or concrete surface temperature is below 40° (4° C), unless allowed by the Engineer.

Surfaces to be waterproofed shall be smooth and free from projections which might damage the membrane sheet. Projections or depressions on the surface that may cause damage to the membrane shall be removed or filled as directed by the Engineer. The surface shall be power washed and cleaned of dust, dirt, grease, and loose particles, and shall be dry before the waterproofing is applied.

The Contractor shall uniformly apply primer to the entire area to be waterproofed, at the rate stated in the manufacturer's instructions, by brush, or roller. The Contractor shall brush out primer that tends to puddle in low spots to allow complete drying. The primer shall be cured according to the manufacturer's instructions. Primed areas shall not stand uncovered overnight. If membrane sheets are not placed over primer within the time recommended by the manufacturer, the Contractor shall recoat the surfaces at no additional cost to the Department.

The installation of the membrane sheet to primed surfaces shall be such that all joints are shingled to shed water by commencing from the lowest elevation of the buried structure's top slab and progress towards the highest elevation. The membrane sheets shall be overlapped as required by the manufacturer. The Contractor shall seal with mastic any laps that were not thoroughly sealed. The membrane shall be smooth and free of wrinkles and there shall be no depressions in horizontal surfaces of the finished waterproofing. After placement, exposed edges of membrane sheets shall be sealed with a troweled bead of a manufacturer's recommended mastic, or two-part liquid membrane, or with sealing tape.

Sealing bands at joints between precast segments shall be installed prior to the waterproofing system being applied. Where the waterproofing system and sealing band overlap, the installation shall be planned such that water will not be trapped or directed underneath the membrane or sealing band.

Care shall be taken to protect and to prevent damage to the waterproofing system prior to and during backfilling operations. The waterproofing system shall be removed as required for the installation of slab mounted guardrails and other appurtenances. After the installation is complete, the system shall be repaired and sealed against water intrusion according to the manufacturer's instructions and to the satisfaction of the Engineer.

Replace the last paragraph of Article 540.06 Precast Concrete Box Culverts and replace with:

Handling holes shall be filled with a polyethylene plug. The plug shall not project beyond the inside surface after installation nor project above the outside surface to the extent that may cause damage to the membrane. When metal lifting inserts are used, their sockets shall be filled with mastic or mortar compatible with the membrane.

Method of Measurement. The waterproofing system will be measured in place, in square yards (square meters) of the concrete surface to be waterproofed.

Basis of Payment. This work will be paid for at the contract unit price, per square yard (square meter) for MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES.

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants /

Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:

The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA- 1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.*

Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

3. Records and certified payrolls (29 CFR 5.5)

a. Basic record requirements (1) Length of record retention. All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) Information required. Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) Additional records relating to fringe benefits. Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) Additional records relating to apprenticeship. Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. Certified payroll requirements (1) Frequency and method of submission. The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) Information required. The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHDLegacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) Statement of Compliance. Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) Use of Optional Form WH-347. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature*. The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification*. The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention*. The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents*. The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers*. The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements*. If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures*. Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay*. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits*. Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio*. The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates*. Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity*. The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

- a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;
- b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;
- c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or
- d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

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3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

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4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or

cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY
SYSTEM OR APPALACHIAN LOCAL ACCESS**

ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)
This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.