

109

Letting November 5, 2021

Notice to Bidders, Specifications and Proposal



**Contract No. 89727
TAZEWELL County
Section 13-00089-02-SD
Route FAS 1467 (Broadway Road)
Project TMRP-282 ()
District 4 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 5, 2021 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. 89727
TAZEWELL County
Section 13-00089-02-SD
Project TMRP-282 ()
Route FAS 1467 (Broadway Road)
District 4 Construction Funds**

Resurfacing, HMA shoulders, concrete curb, drainage improvements and pavement markings on Broadway Road from Veterans Drive to Springfield Road.

- 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, P.E.
Secretary

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2021

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 4-1-16) (Revised 1-1-21)

SUPPLEMENTAL SPECIFICATIONS

<u>Std. Spec. Sec.</u>	<u>Page No.</u>
106 Control of Materials	1
107 Legal Regulations and Responsibility to Public	2
109 Measurement and Payment	3
205 Embankment	4
403 Bituminous Surface Treatment (Class A-1, A-2, A-3)	5
404 Micro-Surfacing and Slurry Sealing	6
405 Cape Seal	17
406 Hot-Mix Asphalt Binder and Surface Course	27
420 Portland Cement Concrete Pavement	28
424 Portland Cement Concrete Sidewalk	30
442 Pavement Patching	31
502 Excavation for Structures	32
503 Concrete Structures	35
504 Precast Concrete Structures	38
505 Steel Structures	40
506 Cleaning and Painting New Steel Structures	41
511 Slope Wall	42
522 Retaining Walls	44
542 Pipe Culverts	45
586 Sand Backfill for Vaulted Abutments	46
602 Catch Basin, Manhole, Inlet, Drainage Structure, and Valve Vault Construction, Adjustment, and Reconstruction	48
603 Adjusting Frames and Grates of Drainage and Utility Structures	49
630 Steel Plate Beam Guardrail	50
631 Traffic Barrier Terminals	53
670 Engineer's Field Office and Laboratory	54
701 Work Zone Traffic Control and Protection	55
704 Temporary Concrete Barrier	58
780 Pavement Striping	60
781 Raised Reflective Pavement Markers	61
783 Pavement Marking and Marker Removal	62
888 Pedestrian Push-Button.....	64
1001 Cement	65
1003 Fine Aggregates	66
1004 Coarse Aggregates	67
1006 Metals	70
1008 Structural Steel Coatings	73
1020 Portland Cement Concrete	77
1043 Adjusting Rings	79
1050 Poured Joint Sealers	81
1069 Pole and Tower	83
1077 Post and Foundation	84
1083 Elastomeric Bearings	85
1095 Pavement Markings	86
1096 Pavement Markers	87
1101 General Equipment	88
1102 Hot-Mix Asphalt Equipment	89
1103 Portland Cement Concrete Equipment	91
1105 Pavement Marking Equipment	93
1106 Work Zone Traffic Control Devices	95

RECURRING SPECIAL PROVISIONS

The following RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

<u>CHECK SHEET #</u>			<u>PAGE NO.</u>
1	X	Additional State Requirements for Federal-Aid Construction Contracts	97
2	X	Subletting of Contracts (Federal-Aid Contracts)	100
3	X	EEO	101
4		Specific EEO Responsibilities Non Federal-Aid Contracts	111
5		Required Provisions - State Contracts	116
6		Asbestos Bearing Pad Removal	122
7		Asbestos Waterproofing Membrane and Asbestos HMA Surface Removal	123
8		Temporary Stream Crossings and In-Stream Work Pads	124
9		Construction Layout Stakes Except for Bridges	125
10	X	Construction Layout Stakes	128
11		Use of Geotextile Fabric for Railroad Crossing	131
12		Subsealing of Concrete Pavements	133
13		Hot-Mix Asphalt Surface Correction	137
14		Pavement and Shoulder Resurfacing	139
15		Patching with Hot-Mix Asphalt Overlay Removal	140
16		Polymer Concrete	142
17		PVC Pipeliner	144
18		Bicycle Racks	145
19		Temporary Portable Bridge Traffic Signals	147
20		Reserved	149
21		Nighttime Inspection of Roadway Lighting	150
22		English Substitution of Metric Bolts	151
23		Calcium Chloride Accelerator for Portland Cement Concrete	152
24		Quality Control of Concrete Mixtures at the Plant	153
25		Quality Control/Quality Assurance of Concrete Mixtures	161
26		Digital Terrain Modeling for Earthwork Calculations	177
27		Reserved	179
28		Preventive Maintenance – Bituminous Surface Treatment (A-1)	180
29		Reserved	186
30		Reserved	187
31		Reserved	188
32		Temporary Raised Pavement Markers	189
33		Restoring Bridge Approach Pavements Using High-Density Foam	190
34		Portland Cement Concrete Inlay or Overlay	193
35		Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	197
36		Longitudinal Joint and Crack Patching	200
37		Concrete Mix Design – Department Provided	202

LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

The following LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

<u>CHECK SHEET #</u>		<u>PAGE NO.</u>
LRS1	Reserved	204
LRS2	Furnished Excavation	205
LRS3	Work Zone Traffic Control Surveillance	206
LRS4	Flaggers in Work Zones	207
LRS5	Contract Claims	208
LRS6	Bidding Requirements and Conditions for Contract Proposals	209
LRS7	Bidding Requirements and Conditions for Material Proposals	215
LRS8	Reserved	221
LRS9	Bituminous Surface Treatments	222
LRS10	Reserved	223
LRS11	Employment Practices	224
LRS12	Wages of Employees on Public Works	226
LRS13	Selection of Labor	228
LRS14	Paving Brick and Concrete Paver Pavements and Sidewalks	229
LRS15	Partial Payments	232
LRS16	Protests on Local Lettings	233
LRS17	Substance Abuse Prevention Program	234
LRS18	Multigrade Cold Mix Asphalt	235

INDEX OF SPECIAL PROVISIONS

Location of Project 1

Description of Project..... 1

Traffic Control Plan. 1

Traffic Control and Protection (Special) 2

Payment for Use of Material Transfer Device 3

Anti-Strip Additive for Hot-Mix Asphalt 3

Rock Fill 3

Hot-Mix Asphalt Surface Course Surface Tests..... 4

Protection of Frames and Lids of Utility Structures 4

Hot-Mix Asphalt Surface Removal, 3” 5

PCC QA/QC Electronic Reports Submittal..... 7

PCC Automatic Batching Equipment 7

Vertical Barricades 7

Contract Guarantee..... 8

Potholing for Location of Existing Underground Utilities 8

Heavy-Duty Handhole 8

Removal of Abandoned Underground Utilities 9

Remove Existing Flared End Section..... 10

Plug Existing Culverts 10

Culvert Connection to Existing Culvert..... 10

Drainage Structure Adjustment (Special)..... 10

Temperature Control for Concrete Placement 11

Hot-Mix Asphalt Driveway Pavement 6” 11

Aggregate Surface Course, Type B 11

Manhole Removal 11

Fence Removal 12

Relocate Existing Mailbox 12

Pavement Removal 12

Pavement Marking Removal/Work Zone Pavement Marking Removal 12

Seedlings 13

Status of Utilities to be Adjusted 14

Cooperation with Utilities 14

Combination Concrete Curb and Gutter 15

Concrete Gutter, Type B (Special) 16

Pipe Connection to Manholes 16

Embankment (Restrictions) 16

Embankment 17

Embankment (Small Embankment) 17

Removal and Disposal of Regulated Substances 18

Pipe Culverts, Class D
Pipe Culverts, Class D, Equivalent Round Size 18

Tree, Acer Saccharum (Sugar Maple), 3" Caliper, Balled and Burlapped 19

Relocate Existing Flashing Beacon 19

Milled Surfaces 19

Filling Existing Culverts 19

Relocate Existing Signs 20

Class SI Concrete (Outlet), Special 20

Class SI Concrete 20

Special Provision for Insurance (LR 107-4).....21
Storm Water Pollution Prevention Plan.....22
IDOT Training Program Graduate On-the-Job Training.....30

BDE SPECIAL PROVISIONS

The following special provisions indicated by an "X" are applicable to this contract. An * indicates a new or revised special provision for the letting.

<u>File Name</u>	<u>Pg.</u>	<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80099		Accessible Pedestrian Signals (APS)	April 1, 2003	April 1, 2020
80274		Aggregate Subgrade Improvement	April 1, 2012	April 1, 2016
80192		Automated Flagger Assistance Device	Jan. 1, 2008	
80173		Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
80246		Bituminous Surface Treatment with Fog Seal	Jan. 1, 2020	
80436	32	X Blended Finely Divided Minerals	April 1, 2021	
80241		Bridge Demolition Debris	July 1, 2009	
50261		Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50481		Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50491		Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50531		Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
80425		Cape Seal	Jan. 1, 2020	Jan. 1, 2021
80384	33	X Compensable Delay Costs	June 2, 2017	April 1, 2019
80198		Completion Date (via calendar days)	April 1, 2008	
80199		Completion Date (via calendar days) Plus Working Days	April 1, 2008	
80293	37	X Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	July 1, 2016
80311	60	X Concrete End Sections for Pipe Culverts	Jan. 1, 2013	April 1, 2016
80261		Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
80387		Contrast Preformed Plastic Pavement Marking	Nov. 1, 2017	
80434	62	X Corrugated Plastic Pipe (Culvert and Storm Sewer)	Jan. 1, 2021	
80029	74	X Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Mar. 2, 2019
80402	84	X Disposal Fees	Nov. 1, 2018	
80378		Dowel Bar Inserter	Jan. 1, 2017	Jan. 1, 2018
80421		Electric Service Installation	Jan. 1, 2020	
80415	86	X Emulsified Asphalts	Aug. 1, 2019	
80423	89	X Engineer's Field Office Laboratory	Jan. 1, 2020	
80229		Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
80417		Geotechnical Fabric for Pipe Underdrains and French Drains	Nov. 1, 2019	
80420		Geotextile Retaining Walls	Nov. 1, 2019	
80433		Green Preformed Thermoplastic Pavement Markings	Jan. 1, 2021	
80304		Grooving for Recessed Pavement Markings	Nov. 1, 2012	Nov. 1, 2020
80422		High Tension Cable Median Barrier	Jan. 1, 2020	Nov. 1, 2020
80416	92	X Hot-Mix Asphalt – Binder and Surface Course	July 2, 2019	Nov. 1, 2019
80398	99	X Hot-Mix Asphalt – Longitudinal Joint Sealant	Aug. 1, 2018	Nov. 1, 2019
80406		Hot-Mix Asphalt – Mixture Design Verification and Production (Modified for I-FIT)	Jan. 1, 2019	July 1, 2021
80347		Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling	Nov. 1, 2014	July 2, 2019
80383		Hot-Mix Asphalt – Quality Control for Performance	April 1, 2017	July 2, 2019
80411		Luminaires, LED	April 1, 2019	July 1, 2021
80393	103	X Manholes, Valve Vaults, and Flat Slab Tops	Jan. 1, 2018	Mar. 1, 2019
80045	105	X Material Transfer Device	June 15, 1999	Aug. 1, 2014
80418		Mechanically Stabilized Earth Retaining Walls	Nov. 1, 2019	Nov. 1, 2020
80424		Micro-Surfacing and Slurry Sealing	Jan. 1, 2020	Jan. 1, 2021
80428	107	X Mobilization	April 1, 2020	
80412		Obstruction Warning Luminaires, LED	Aug. 1, 2019	
80430	108	X Portland Cement Concrete – Haul Time	July 1, 2020	
80359		Portland Cement Concrete Bridge Deck Curing	April 1, 2015	Nov. 1, 2019
80431		Portland Cement Concrete Pavement Patching	July 1, 2020	
80432		Portland Cement Concrete Pavement Placement	July 1, 2020	

<u>File Name</u>	<u>Pg.</u>	<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80300		Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	April 1, 2016
34261		Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157		Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
80306	109	X Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	Jan. 2, 2021
80407	119	X Removal and Disposal of Regulated Substances	Jan. 1, 2019	Jan. 1, 2020
80419	130	X Silt Fence, Inlet Filters, Ground Stabilization and Riprap Filter Fabric	Nov. 1, 2019	July 1, 2021
80395		Sloped Metal End Section for Pipe Culverts	Jan. 1, 2018	
80340		Speed Display Trailer	April 2, 2014	Jan. 1, 2017
80127		Steel Cost Adjustment	April 2, 2014	Aug. 1, 2017
80408	136	X Steel Plate Beam Guardrail Manufacturing	Jan. 1, 2019	
80413		Structural Timber	Aug. 1, 2019	
80397	137	X Subcontractor and DBE Payment Reporting	April 2, 2018	
80391	138	X Subcontractor Mobilization Payments	Nov. 2, 2017	April 1, 2019
80437		Submission of Payroll Records	April 1, 2021	
80435		Surface Testing of Pavements – IRI	Jan. 1, 2021	April 1, 2021
80298		Temporary Pavement Marking	April 1, 2012	April 1, 2017
80409	139	X Traffic Control Devices – Cones	Jan. 1, 2019	
80410		Traffic Spotters	Jan. 1, 2019	
20338	140	X Training Special Provisions	Oct. 15, 1975	Sept. 2, 2021
80318		Traversable Pipe Grate for Concrete End Sections	Jan. 1, 2013	Jan. 1, 2018
80429		Ultra-Thin Bonded Wearing Course	April 1, 2020	
* 80439	143	X Vehicle and Equipment Warning Lights	Nov. 1, 2021	
80288	144	X Warm Mix Asphalt	Jan. 1, 2012	April 1, 2016
* 80440		Waterproofing Membrane System	Nov. 1, 2021	
* 80302	146	X Weekly DBE Trucking Reports	June 2, 2012	Nov. 1, 2021
80414		Wood Fence Sight Screen	Aug. 1, 2019	April 1, 2020
80427		Work Zone Traffic Control Devices	Mar. 2, 2020	
80071	147	X Working Days	Jan. 1, 2002	

The following special provisions are in the 2021 Supplemental Specifications and Recurring Special Provisions.

<u>File Name</u>	<u>Special Provision Title</u>	<u>New Location(s)</u>	<u>Effective</u>	<u>Revised</u>
80277	Concrete Mix Design – Department Provided	Check Sheet #37	Jan. 1, 2012	April 1, 2016
80405	Elastomeric Bearings	Article 1083.01	Jan. 1, 2019	
80388	Equipment Parking and Storage	Article 701.11	Nov. 1, 2017	
80165	Moisture Cured Urethane Paint System	Article 1008.06	Nov. 1, 2006	Jan. 1, 2010
80349	Pavement Marking Blackout Tape	Articles 701.04, 701.19(f), 701.20(j) and 1095.06	Nov. 1, 2014	April 1, 2016
80371	Pavement Marking Removal	Articles 783.02-783.04, 783.06 and 1101.13	July 1, 2016	
80389	Portland Cement Concrete	Article 1020.04 Table 1 and Note 4	Nov. 1, 2017	
80403	Traffic Barrier Terminal, Type 1 Special	Articles 631.04 and 631.12	Nov. 1, 2018	

The following special provisions have been deleted from use.

<u>File Name</u>	<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80317	Surface Testing of Hot-Mix Asphalt Overlays	Jan 1, 2013	Aug. 1, 2019

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," Adopted April 1, 2016, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," and 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 Milling, Resurfacing, Shoulder Construction and Ditch Improvements for Broadway Road (FAS 1467) in Tazewell County, Illinois, Section 13-00089-02-SD and Section 13-00090-03-RS in Tazewell County and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

Broadway Road (FAS 1467) in Tazewell County, Illinois from Veterans Drive to Springfield Road.

DESCRIPTION OF PROJECT

Milling and resurfacing of the existing pavement, construction of HMA shoulder, ditching, manholes, culverts, concrete gutter, erosion control, seeding, pavement marking and all collateral work.

TRAFFIC CONTROL PLAN

Traffic control shall be in accordance with the applicable sections of the "Standard Specifications for Road and Bridge Construction," the applicable guidelines contained in the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways," these Special Provisions, and any special details and Highway Standards contained herein and in the plans.

Special attention is called to Section 701 and Articles 107.09, 107.14 and 107.15 of the "Standard Specifications for Road and Bridge Construction" and the following Highway Standards relating to traffic control:

701001	701006	701011	701201	701206	701301
701306	701311	701326	701336	701901	

Overnight lane closures or overnight reduced lane widths will not be permitted in any traffic lane. Drop-offs shall be marked in accordance with 701.07 of the Standard Specifications during overnight hours or when work applicable to the drop-off is not being performed except Type I or II barricades or vertical panels shall be placed at 300 foot centers.

All commercial, private field entrances and roadways within the project limits shall have suitable access provided, as determined by the Engineer, at all times during construction. Additional material, labor or accommodations required to maintain access, beyond what is provided in the plans, will be the responsibility of the Contractor and will not be paid separately but shall be considered included in the contract lump sum price for Traffic Control and Protections (Special).

Traffic Control Devices required at the centerline by Traffic Control Standard, but moved into the traffic lane to allow construction activities, shall be returned to the centerline as soon as construction activities permit to minimize traffic impacts.

TRAFFIC CONTROL AND PROTECTION, (SPECIAL)

This work shall consist of furnishing, installing, maintaining, surveillance when required, relocating and removal of all traffic control required for the purpose of regulating, warning or directing traffic for construction activities. This work includes, but not limited to: providing, relocating and removing signs and barricades; pavement marking removal; temporary pavement marking placement; and short-term pavement marking and removal as required. This work shall be done in accordance with Article 107.14 and Section 701 of the Standard Specifications, maintenance of traffic plan details, applicable Highway Standards and Special Provisions.

The plan details show a suggested maintenance of traffic for this project, and do not attempt to define all construction activities, which require traffic control. The Contractor may revise or modify the traffic control as shown with written permission of the Engineer. Traffic Control Surveillance will be required on this contract.

Existing regulatory traffic signing shall be removed or relocated as needed for each construction operation. The Contractor shall furnish, install and maintain any temporary regulatory or warning signs as necessary. Temporary signs shall remain in place as required or until permanent signing has been installed.

Method of Measurement. All traffic control and protection required will be measured for payment on a lump sum basis. No additional compensation will be allowed for alterations, or additions necessary to construct the various work items shown in the plans.

Basis of Payment. Work and materials required by this Special Provision will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL)

and at the contract unit price per calendar day for TRAFFIC CONTROL SURVEILLANCE.

PAYMENT FOR USE OF MATERIAL TRANSFER DEVICE

Effective April 23, 2010

This work shall be performed as specified in the plans and specifications herein.

No payment will be made for tonnages of HMA items required to be placed with a Material Transfer Device, but were not able to be placed with a Material Transfer Device.

The maximum tonnage eligible for payment when placed with the Material Transfer Device will be limited to the Final Pay Quantity of the pay items placed.

ANTI-STRIP ADDITIVE FOR HOT-MIX ASPHALT

Effective July 30, 2010

If an anti-stripping additive is required for any hot-mix asphalt in accordance with Article 1030.04(c), the cost of the additive will not be paid for separately, but shall be considered as included in the contract unit price bid for the hot-mix asphalt item(s) involved.

ROCK FILL

Effective October 15, 1995 Revised April 26, 2013

This work shall consist of furnishing, transporting and placing rock fill for ground stabilization.

For Rock Fill depths ≤ 18 ", the material shall meet Quality Designation "B" as required in Article 1004.01 of the Standard Specifications for Road and Bridge Construction. The material shall be crushed stone and meet the gradation of CA 7 or CA 11 per Article 1004.01 of the Standard Specifications for Road and Bridge Construction.

The aggregate shall be placed in 6 in. (150 mm) lifts, loose measurements, and compacted in a manner approved by the Engineer, except that if the desired results are being obtained, the compacted thickness of any lift may be increased to a maximum of 8 in. (200 mm).

For Rock Fill depths > 18 ", the top 6" shall meet the requirements listed above for depths ≤ 18 " and the remaining depth shall meet Quality Designation "B" as required in

Article 1005.01 of the Standard Specifications for Road and Bridge Construction and may be shot rock or primary crusher run. It shall not contain objectionable quantities of dirt, sand, clay or rock fines. The material shall be well graded with a maximum stone dimension of 8 inches (200 mm). No more than 35% shall have a dimension less than 2 inches (50 mm).

This work will be paid for at the contract unit price per Cubic Yard (Cubic Meter) for ROCK FILL.

HOT-MIX ASPHALT SURFACE COURSE SURFACE TESTS

Effective: November 1, 2003

Revised January 1, 2007

The Contractor shall provide a person to operate the straight edge in accordance with Article 406.11 of the Standard Specifications and communicate with Tazewell County personnel to minimize the surface course bumps. If surface course bumps cannot be removed at this time, Tazewell County personnel will record the locations and provide deductions as stated in Article 406.11.

PROTECTION OF FRAMES AND LIDS OF UTILITY STRUCTURES

Effective March 6, 1991

Revised January 1, 2007

This work shall consist of protecting frames and lids of utility structures in the pavement after the adjacent hot-mix asphalt surface has been removed to the required depth by cold milling or by hand methods.

After the area has been swept clean and before the lane is opened to traffic, a hot bituminous mixture shall be placed around the casting, flush with its surface and decreasing to a featheredge in a distance of 4 feet (1.2 m) around the entire surface of the casting. Cold mix or milled material will not be permitted. This mixture shall remain in place until the day surfacing operations are undertaken within the immediate area of the structure. Prior to placing the surface course, the temporary hot-mix asphalt mixture shall be removed and disposed of by the Contractor as specified in Article 202.03 of the Standard Specifications.

The temporary tapers and their removal shall be considered included in the contract unit price per Square Meter (Square Yard) for HOT-MIX ASPHALT SURFACE REMOVAL of the depth specified, and no additional compensation will be allowed.

HOT-MIX ASPHALT SURFACE REMOVAL, 3"

Description: This work shall consist of removing a portion of the existing hot-mix asphalt concrete surface course in accordance with the applicable portions of Section 440 and 1101 of the Standard Specifications, this special provision, details in the plans and as directed by the Engineer. The cold milled salvaged aggregate resulting from this operation shall become the property of the Contractor.

When the teeth become worn so that they do not produce a uniform surface texture, they shall all be changed at the same time (as a unit). Occasionally, individual teeth may be changed if they lock up or break, but this method shall not be used to avoid changing the set of teeth as a unit.

The moldboard is critical in obtaining the desired surface texture. It shall be straight, true, and free of excessive nicks or wear, and it shall be replaced as necessary to uniformly produce the required surface texture. Gouging of the pavement by more than 1/4 inch shall be sufficient cause to require replacement of all teeth. Occasional gouges, due to deteriorated pavement condition, or separation of lifts will not be cause to replace all teeth. The Engineer will be the sole judge of the cause of the pavement gouging and the corrective work required. Corrective work due to negligence or poor workmanship will be at the Contractor's expense.

Construction Requirements

General: Weather conditions, when milling work is performed, must be such that short term or temporary pavement markings can be placed the day the surface is milled in accordance with Section 703 "Work Zone Pavement Markings."

An automatic grade control device shall be used when milling mainline pavement and shall be capable of controlling the elevation of the drum relative to either a preset grade control stringline or a grade reference device traveling on the adjacent pavement surface. The automatic grade control device may be utilized on only one side of the machine with an automatic slope control device controlling the opposite side. The traveling grade reference device shall not be less than 30 feet (9 m) in length for rural areas. For urban areas, a device not less than 20 feet (6 m) in length will be required. When milling cross roads, turn lanes, intersections, crossovers, or other miscellaneous areas, the Engineer may permit the use of a matching shoe.

Surface tests will be performed according to Article 406.11 of the Standard Specifications. The profile will be taken 3 ft. from and parallel to each edge of pavement and 3 ft. from and parallel to the centerline on each side. If a shadow area is found at the 3 ft. points, the pavement smoothness tester will be moved sufficient distance either side to measure the Contractor's milling efforts. If any (milled) surface variations found to be outside the tolerance of Article 406.11, then the roadway shall be reprofiled at no additional cost. In addition, the Contractor shall be responsible for refilling, with approved hot-mix asphalt mixtures, any area that lowered the pavement profile as a result of his faulty milling operations if directed by the Engineer. The Contractor shall be responsible

for providing the pavement smoothness tester described elsewhere to retest the pavement profile obtained. If the milling depth is intended to expose the original concrete pavement, then additional hand or machine work may be necessary to remove any remaining veneer of bituminous pavement which may be left in place behind the milling machine. Such work will be at the direction of the Engineer and at no extra cost to the State.

The Contractor shall provide a 10' straightedge equipped with a carpenter's level or a 7' electronic straightedge to check the cross slope of the roadway at regular intervals as directed by the Engineer.

Surface Texture: Each tooth on the cutting drum shall produce a series of discontinuous longitudinal striations. There shall be 16 to 20 striations (tooth marks) for each tooth for each 6' in the longitudinal direction, and each striation shall be 1.7 inches \pm 0.2 inch in length after the area is planed by the moldboard. Thus, the planed length between each pair of striations shall be 2.3 inches \pm 0.2 inch. There shall be 80 to 96 rows of discontinuous longitudinal striations for each 5' in the transverse dimension. The areas between the striations in both the longitudinal and transverse directions shall be flat topped and coplaner. The moldboard shall be used to cut this plane; and any time the operation fails to produce this flat plane interspersed with a uniform pattern of discontinuous longitudinal striations, the operation shall be stopped and the cause determined and corrected before recommencing. Other similar patterns of uniform discontinuous longitudinal striations interspersed on a flat plane may be approved by the Engineer.

The startup milling speed shall be limited to a maximum of 50' per minute. The Contractor shall limit his operations to this speed to demonstrate his ability to obtain the striations and rideability as described above. If the Contractor is able to demonstrate that he can consistently obtain the desired striations and rideability at a greater speed he will be permitted to run at the increased speed.

Cleanup: After cold milling a traffic lane and before opening the lane to traffic, the pavement shall be swept by a self-propelled street sweeper with power vacuum capability to prevent compaction of the cuttings onto the pavement. All loose material shall be removed from the roadway. Before the prime coat is placed, the pavement shall be cleaned of all foreign material to the satisfaction of the Engineer. This cleanup work shall be considered included in the contract unit price per Square Yard for HOT-MIX ASPHALT SURFACE REMOVAL of the depth specified, and no additional compensation will be allowed.

Method of Measurement:

(a) Contract Quantities. The requirements for the use of Contract Quantities shall be Article 202.07(a) of the Standard Specifications.

(b) Measured Quantities. Cold milling and planing will be measured and the area computed in square yards (square meters) of surface.

Areas not milled (shadow areas) due to rutting in the existing pavement surface will be included in the area measured for payment.

Basis of Payment: The cold milling and planing will be paid for at the contract unit price per Square Yard for HOT-MIX ASPHALT SURFACE REMOVAL of the depth specified. Payment as specified will include variations in depth of cuts due to rutting, superelevations, and pavement crown and no additional compensation will be allowed.

PCC QC/QA ELECTRONIC REPORTS SUBMITTAL

Effective April 26, 2013

Revised: April 26, 2015

The Contractor's QC personnel shall be responsible for electronically submitting PRO and IND MI 654 Air, Slump, Quantity Reports, PRO MI 655 PCC Strength Reports, and MI 504 Field/Lab Gradations to the Department. The format for the electronic submittals will be the PCC QC/QA reporting program, which will be provided by the Department. Microsoft Office 2007 or newer is required for this program which must be provided by the Contractor.

PCC AUTOMATIC BATCHING EQUIPMENT

Effective April 23, 2010

Revised November 7, 2014

Portland cement concrete provided shall be produced from batch plants that conform to the requirements of Article 1103.03 (a) and (b) of the Standard Specifications for Road and Bridge Construction. Semi-automatic batching will not be allowed.

In addition, the batching plant shall be a computerized plant interfaced with a printer and shall print actual batch weights and aggregate mixtures, all water added, amount of each admixture or additive per batch, and percentage variance from design. The ticket shall also state the actual water-cement ratio as batched, and the amount of water that can be added to the batch without exceeding the maximum water-cement ratio. Truck delivery tickets will still be required as per Article 1020.11 (a)(7) of the Standard Specifications.

VERTICAL BARRICADES

Vertical barricades shall be used in the various traffic control standard installations where devices are located directly adjacent to open lanes of traffic to provide a greater travelling width. The cost of using vertical barricades in the various traffic control setups shall be included in the cost of the various traffic control pay items provided in the plans.

CONTRACT GUARANTEE

The Contractor shall guarantee all electrical equipment, apparatus, materials, and workmanship provided under the contract for a period of six (6) months after the date of final inspection according to Article 801.14.

All instruction sheets required to be furnished by the manufacturer for materials and supplies and for operations shall be delivered to the Engineer prior to the acceptance of the project, with the following warranties and guarantees:

1. The manufacturer's standard written warranty for each piece of electrical equipment or apparatus furnished under the contract.
2. The Contractor's written guarantee that, for a period of six (6) months after the date of final inspection of the project, all necessary repairs to or replacement of said warranted equipment, or apparatus shall be made by the Contractor at no cost to the Department.
3. The Contractor's written guarantee for satisfactory operation of all electrical systems furnished and constructed under the contract for a period of 6 months after final inspection of the project.

POTHOLING FOR LOCATION OF EXISTING UNDERGROUND UTILITIES

Potholing to locate existing underground utilities and removal and replacement of existing sidewalk, pavement, and islands only for utility locating purposes will not be paid for separately, but shall also be included in the contract bid price for the conduit pay items (pushed, trenched or directionally bored).

HEAVY-DUTY HANDHOLE

This work shall consist of furnishing the materials and constructing a heavy-duty handhole in accordance with the applicable Articles of Section 814 and 1088 of the Standard Specifications with the following modifications:

The lift ring for the cover shall consist of a solid closed ring of stainless steel at least 3/8 inch in diameter. The lift ring shall be attached to the cover by a loop of stainless steel at least 3/8 inch in diameter. The lift ring and loop shall be recessed in the cover.

The Contractor shall install heavy-duty, fully-galvanized hooks, with a minimum diameter of ½" in the proposed handhole. The Contractor shall submit this material to the Engineer prior to construction of the handholes.

The lid shall be marked with the legend "Lighting".

Pre-cast handholes are not allowed.

All unsuitable materials shall be disposed of by the Contractor outside the job limits.

Basis of Payment: This work will be paid for at the contract unit price Each for HEAVY-DUTY HANDHOLE, which price shall be payment in full for all labor, materials, and equipment required to provide the handhole described above as well as any necessary excavating, backfilling, disposal of unsuitable materials, and furnishing all materials within the limits of the handhole.

REMOVAL OF ABANDONED UNDERGROUND UTILITIES

Effective January 15, 1996

Revised November 21, 1996

This work shall be completed in accordance with Article 105.07 of the Standard Specifications and the items outlined herein:

The cost of removal of abandoned or to be abandoned underground utilities shown on the plans are the responsibility of the owner. The Contractor shall make arrangements with the utility owner for removal and payment. The utility owner is listed in the plans under Status of Utilities.

Prior to removal of the abandoned facility, the owner shall be notified so that representatives can be present during the removal operation.

If an unknown abandoned utility is encountered, the Contractor will be paid for any removal required by the Engineer as extra work in accordance with Article 109.04 of the Standard Specifications.

REMOVE EXISTING FLARED END SECTION

This work consists of the complete removal of the existing flared end sections as noted on the plans. Removed flared end sections shall become the property of the Contractor and shall be legally removed from the construction site.

This work will be measured and paid for at the contract unit price each for REMOVE EXISTING FLARED END SECTION.

PLUG EXISTING CULVERTS

This work consists of plugging the upstream end of the existing culverts at the location show on the plans. The end of the pipe shall be sealed with 6 inches of Class SI concrete or brick and mortar to the satisfaction of the Engineer.

This work will be measured and paid for at the contract unit price per each for PLUG EXISTING CULVERTS which price shall include all labor, equipment and materials to perform the work as described.

CONNECTION TO EXISTING CULVERT

This work consists of connecting proposed culverts to existing culverts where shown on the plans. The connection shall be a water tight connection by either connecting at an existing joint of bell and spigot pipe or by constructing a concrete collar as detailed on CADD standard 542016.

This work will be measured and paid for at the contract unit price each for CONNECTION TO EXISTING CULVERT which price shall include all labor, equipment and materials to perform the work as described.

DRAINAGE STRUCTURE ADJUSTMENT (SPECIAL)

This work consists of removing and relocating existing field tile risers where shown on the plans. The Contractor shall verify with the Engineer the proposed location of the field tile riser.

This work will be measured and paid for at the contract unit price each for DRAINAGE STRUCTURE ADJUSTMENT (SPECIAL) which price shall include all labor, equipment and materials to perform the work as described.

TEMPERATURE CONTROL FOR CONCRETE PLACEMENT

Effective: August 3, 2007

Delete the second and third sentences of the second paragraph of Article 11020.14(A) of the Standard Specifications.

HOT-MIX ASPHALT DRIVEWAY PAVEMENT 6"

This work consists of constructing a Hot-Mix Asphalt pavement at various locations shown in the plans. This work shall be in compliance with applicable portions of Section 408 of the Standard Specifications these special provisions and plan details.

Bituminous Driveway Pavement 6" shall be constructed of 4" HMA Base Course with a 2" HMA Surface Course Mix C, N 50.

The HMA Base Course mixture used in these items shall meet a 19 mm HMA Binder Specification with an N design of 50.

Method of Measurement. This work will be measured for payment in square yards.

Basis of Payment. This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT DRIVEWAY PAVEMENT of the specified depth.

AGGREGATE SURFACE COURSE, TYPE B

Add the following to Article 402.07 of the Standard Specifications:

The top layer shall be given a final rolling with a roller meeting the requirements of Article 1101.01.

Basis of Payment. This work will be paid for at the contract unit price per square yard for AGGREGATE SURFACE COURSE, TYPE B, at the depth specified.

MANHOLE REMOVAL

This work shall consist of removing existing manholes where shown on the plans in accordance with the applicable portions of Section 605 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per each for MANHOLE REMOVAL.

FENCE REMOVAL

This work shall consist of removing existing fencing where shown on the plans in accordance with the applicable portions of the Standard Specifications. Work shall include complete removal of the existing fencing materials and legal disposal of the removed materials. Posts shall be pulled and not broken off at the ground. No portion of fence or posts shall remain.

Basis of Payment. This work will be paid for at the contract unit price per foot for FENCE REMOVAL.

RELOCATE EXISTING MAILBOX

This work consists of relocating existing mailboxes, including erection of temporary mailboxes during construction. This work shall be in compliance with applicable portions of Article 107.20 of the Standard Specifications. The location of the relocated mailbox shall be as near as possible to the original location and shall be approved by the Engineer.

PAVEMENT REMOVAL

Saw cuts shall be made on all Pavement Removal and Driveway Pavement Removal when adjacent to pavement to remain in place. This work will not be paid separately but shall be included in the cost of the Pavement Removal and Driveway Pavement Removal pay items.

PAVEMENT MARKING REMOVAL/WORK ZONE PAVEMENT MARKING REMOVAL

Description: This work shall consist of removing all permanent or work zone pavement marking, painted pavement markings, epoxy paint pavement markings, thermoplastic pavement marking, or pavement marking tape type III by hydro-blasting in accordance with the applicable portions of Section 783 and 703 of the Standard Specifications and as described herein. Pavement marking tape type III may be peeled or burned off. However, all remnants or burn marks shall be hydro-blasted.

Equipment Requirements: All equipment shall be of sufficient capacity to efficiently and economically clean the roadway surface to the specified cleanliness. Equipment shall be power driven and in good operating condition. Equipment shall utilize moisture and oil traps, in working order, of sufficient capacity to remove contaminants from the water and prevent deposition of oil and other contaminants on the roadway surface.

Removal Requirements: Removal requirements shall be as follows:

a) The existing paint pavement markings or epoxy paint pavement markings shall be removed without pavement surface damage to the satisfaction of the Engineer.

b) A high pressure water spray or "hydro-blast" shall be used during the removal, the pressure at the nozzle shall be approximately 172,000 kPa (25,000 psi) with maximum flow rate of 56 L/min (15 gal/min). The nozzle shall be in close proximity to the pavement surface.

c) Over cleaning to the extent of possible damage to the roadway surface shall be held to a minimum. Very small particles of tightly adhering existing markings may remain in place, if in the opinion of the Engineer, complete removal of the small particles will result in pavement surface damage.

This work will not be paid separately but shall be included in the lump sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

SEEDLINGS

This work shall consist of furnishing and delivering seedling trees in compliance with Articles 253.02(a), 253.05, 253.06 and these special provisions. Seedlings shall be dormant and delivered in good condition to the Tazewell County Highway Department at 21308 Illinois Route 9, Tremont, Illinois.

Seedlings shall consist of an equal distribution of the following species:

Northern Red Oak Red Bud White Oak Red Maple

Or other varieties and distribution agreed to by the Tazewell County Highway Department.

The seedlings are to be delivered to the Tazewell County Highway Department at the time and location selected by the Department. Trees may be for spring and/or for fall planting as requested by the Tazewell County Highway Department.

Contact Tazewell County at (309) 925-5532 to make arrangements for delivery.

This work will not be paid separately but shall be included in the unit price per unit for SEEDLINGS.

STATUS OF UTILITIES TO BE ADJUSTED

Effective: January 30, 1987

Revised: July 1, 1994

Utility companies involved in this project have provided the following estimated dates:

<u>Name of Utility</u>	<u>Location</u>	<u>Estimated Dates for Start and Completion of Relocation or Adjustments</u>
------------------------	-----------------	--

None provided to date

The above represents the best information available and is included for the convenience of the bidder. The applicable portions of Articles 105.07 and 107.31 of the Standard Specifications shall apply.

Based upon the best available information, the project has been designed to avoid vertical conflicts with existing underground utilities. It is anticipated that temporary support will be required for some of the underground existing utilities during construction. Adjustments to the vertical elevation of several existing utility structure frames and lids during construction are required to match the proposed surface grade elevation.

COOPERATION WITH UTILITIES

The Contractor is responsible for verifying the nature and status of all utility adjustment relocation work and coordinate this work with the responsible utility representatives prior to beginning construction.

The Engineer shall be notified in writing by the Contractor at least ten (10) days prior to the start of any such operation.

Where the Contractor is constructing new facilities for a utility, the utility shall be notified 5 days prior to start of this work.

The following utilities are known to own and operate within the right of way limits for this project. All known data from these agencies has been incorporated into the plans. It is, however, the Contractor's responsibility to confirm or establish the existence of all utility facilities and their exact locations, whether contained in the data submitted by these agencies or not, and to safely schedule all utility relocations.

Ameren Illinois
Contact: Nathan Hill
Telephone Number: 618-301-5327

Illinois Department of Transportation
Contact: Anna Ghidina
Telephone Number: 309-671-3333

Comcast
Contact: Martha Gieras
Telephone Number: 224-229-5862

Illinois American Water
Contact: Kyle Smith
Telephone Number: 309-208-8357

Panhandle Eastern Pipeline
Contact: Matt Donaldson
Telephone Number: 217-625-2841 x 5511

Windstream KDL
Contact: Gail Schmitz or Lisa Zingula (Lisa.Zingula@windstream.com)
Telephone Number: 800-289-1901

Lumen
Contact: Daniel Goette
Daniel.Goette@lumen.com

Joint Utility Locating Information for Excavators (JULIE)
Telephone Number: 800-892-0123 or 811

City of Pekin (Traffic Signals)
Contact: Josie Esker
Telephone Number 309-478-5399

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12

This work consists of constructing Combination Concrete Curb and Gutter, Type B-6.12 where shown on the drawings and in accordance with applicable portions of Section 606 of the Standard Specifications.

Method of Measurement: This work will be paid for at the contract unit price per foot in accordance with Article 606.14 of the Standard Specifications.

Basis of Payment: This work will be paid for at the contract unit price per foot for COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12, in accordance with Section 606 of the Standard Specifications. Transitions from the Combination Concrete Curb and Gutter, Type B-6.12 to gutter inlets or outlets will be paid for at the contract unit price per foot for COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12.

CONCRETE GUTTER, TYPE B (SPECIAL)

This work consists of construction of concrete gutter where shown on the drawings.

Construction of the gutter shall be in accordance with applicable portions of Section 606 of the Standard Specifications.

Basis of Payment: This work will be paid for at the contract unit price per foot for CONCRETE GUTTER, TYPE B (SPECIAL) which price shall include all labor, equipment and material necessary to complete the work.

PIPE CONNECTION TO MANHOLES

Connecting existing and proposed culverts or storm sewers to proposed manholes shall be considered included in the cost of manholes of the diameter and type specified on the plans.

EMBANKMENT (RESTRICTIONS)

Effective January 21, 2005 Revised August 3, 2007

Add the following to the requirements of Article 205.04:

Gravel, crushed stone or soils having less than 35% passing the number 200 sieve and other materials as allowed by Article 202.03 of the standard specifications are further restricted. These further restricted materials are also limited to the interior of the embankment and shall have a minimum cover of 3' (1 m) of non-restricted soil (see "Borrow and Furnished Excavation" Special Provision). Alternating layers of further restricted material and cohesive soil will not be permitted. The further restricted materials may only be incorporated into the embankment by using one of the following procedures:

- a. The further restricted materials shall be placed in 4" lifts and disked with the underlying lift material until a uniform and homogenous material is formed having more than 35% passing the number 200 sieve.
- b. Sand, gravel or crushed stone embankment when placed on the existing ground surface will be drained using a 10' by 10' French drain consisting of nonwoven geotechnical fabric with 12" of B-3 riprap. This shall be constructed on both sides of the embankment at the toe of the foreslope spaced 150' apart. At locations requiring a French drain the 3' cohesive cap shall not be installed within the 10' by 10' riprap area. If the Engineer determines that the existing ground is a granular free draining soil, the French drain may be deleted.

- c. Sand, gravel or crushed stone embankment when placed on top of a cohesive embankment will be drained with a permanent 4" underdrain system. The underdrain system shall consist of a longitudinal underdrain on both sides of the embankment and transverse underdrains spaced at 250' centers. The underdrain shall consist of a 2' deep by 1' wide trench, backfilled with FA4 sand and a 4" diameter underdrain. In addition, both sides of the embankment will have a 6" diameter pipe drain which will drain the underdrain system and outletted into a permanent drainage structure or outletted by a headwall at the toe of the embankment.

The above work will not be paid for separately but shall be included in the cost of EARTH EXCAVATION, FURNISHED EXCAVATION, or BORROW EXCAVATION.

EMBANKMENT

Effective: July 1, 1990 Revised: November 1, 2007

Revise the third paragraph of Article 205.06 of the Standard Specifications to read:

All embankment shall be constructed with not more than 110% of optimum moisture content, determined according to AASHTO T 99 (Method C). The 110% of optimum moisture limit may be waived in free draining granular material when approved by the Engineer.

The Contractor may, at his option, add a drying agent to lower the moisture content as specified above. The drying agent must be approved by the Engineer prior to use. Extra compensation will not be allowed for the use of a drying agent but will be considered included in the cost of the various items of excavation.

EMBANKMENT (SMALL EMBANKMENT)

Effective October 1, 1999 Revised January 1, 2007

Revised the third paragraph of Article 205.06 of the Standard Specifications to read:

All material used for embankment shall not contain more than 120% of the optimum moisture except for the top 2 ft. (600 mm).

The top 2 ft. (600 mm) of all embankments shall not contain more than 110% of the optimum moisture determined according to AASHTO T99 (Method C). The 110% of optimum moisture limit may be waived in free draining granular material when approved by the Engineer.

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

This work shall be according to Article 669 of the Standard Specifications and the following:

Qualifications: The term environmental firm shall mean an environmental firm with at least five (5) documented leaking underground storage tank (LUST) cleanups or that is pre-qualified in hazardous waste by the Department. Documentation includes but not limited to verifying remediation and special waste operations for sites contaminated with gasoline, diesel, or waste oil in accordance with all Federal, State, or local regulatory requirements and shall be provided to the Engineer for approval. The environmental firm selected shall not be a former or current consultant or have any ties with any of the properties contained within and/or adjacent to this construction project.

General: This Special Provision will likely require the Contractor to subcontract for the execution of certain activities.

All contaminated materials shall be managed as either "uncontaminated soil" or non-special waste. This work shall include monitoring and potential sampling, analytical testing, and management of a material contaminated by regulated substances. The Environmental Firm shall continuously monitor all soil excavation for worker protection and soil contamination. Soil samples or analysis without the approval of the Engineer will be at no additional cost to the Department. The lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit whichever is less.

PIPE CULVERTS, CLASS D

PIPE CULVERTS, CLASS D, EQUIVALENT ROUND SIZE

Pipe Culverts, Class D (sizes 18" through 36" only) and Pipe Culverts, Class D, Equivalent Round Size of the type and size shown on the plans shall be Aluminized Steel Type 2 Corrugated Pipe unless otherwise specified on the plans.

Pipe Culverts, Class D (sizes 8" through 15") of the type and size shown on the plans shall be Polyvinyl Chloride (PVC) pipe.

Basis of Payment. This work will be paid for at the contract unit price per foot PIPE CULVERTS, CLASS D of the type and size specified.

TREE, ACER SACCHARUM (SUGAR MAPLE), 3" CALIPER, BALLED AND BURLAPPED

This work shall consist of all labor, materials, and equipment necessary providing and planting trees of the type and size shown on the plans in accordance with applicable portions of the Standard Specifications. The final location of each tree shall be approved by the Engineer prior to beginning the work.

Basis of Payment: This work will be paid for at the contract unit price per each for TREE, ACER SACCHARUM (SUGAR MAPLE), 3" CALIPER, BALLED AND BURLAPPED, in accordance with the Standard Specifications.

RELOCATE EXISTING FLASHING BEACON

This work shall consist of all labor, materials, and equipment necessary to relocate the existing beacon located near station 207+00. The beacon shall be removed and reinstalled at station 207+00, 25' right.

Basis of Payment: This work will be paid for at the contract unit price per each for RELOCATE EXISTING FLASHING BEACON, in accordance with the Standard Specifications.

MILLED SURFACES

Hot-mix surface removal shall be completed such that a minimum amount of traffic is on the milled surface in advance of paving. Milled surfaces shall not be exposed to traffic more than a period of 48 hours, weather permitting. If traffic is expected to use the milled surface longer than 48 hours, the Contractor shall apply a tack coat with blotter or similar treatment approved by the Engineer prior to opening the milled area to traffic.

The cost of this work will not be paid for separately, but shall be considered as included in the contract unit price bid for the hot-mix asphalt item(s) involved.

FILLING EXISTING CULVERTS

This work consists of filling existing culverts where shown on the plans.

This work shall be completed in accordance with applicable portions of Section 605 of the Standard Specifications. The lower end of the culvert shall be adequately plugged prior to filling the culvert. The culvert shall be filled with Portland Cement Concrete in accordance with Section 1020 of the Standard Specifications.

Basis of Payment: This work will be measured and paid for at the contract unit price per Cubic Yard (Cubic Meter) for FILLING EXISTING CULVERTS.

RELOCATE EXISTING SIGNS

This work shall consist of all labor, materials, and equipment necessary to relocate the existing sign located near station 101+00, right. The sign shall be removed and reinstalled at a location outside the construction limits as approved by the Engineer. Any materials damaged during removal shall be replaced at the Contractors expense.

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

CLASS SI CONCRETE (OUTLET), SPECIAL

This work shall be completed in accordance with applicable portions of Section 606 of the Standard Specifications and as shown in the plans.

Basis of Payment: This work will be measured and paid for at the contract unit price per Cubic Yard (Cubic Meter) for CLASS SI CONCRETE (OUTLET), SPECIAL.

CLASS SI CONCRETE

This work shall be completed in accordance with applicable portions of the Standard Specifications and as shown in the plans.

Basis of Payment: This work will be measured and paid for at the contract unit price per Cubic Yard (Cubic Meter) for CLASS SI CONCRETE.

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:

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



Route Broadway Road (FAS 1467)	Marked Route Broadway Road	Section 13-00089-02-SD; 13-000-03-RS
Project Number TMRP(282)	County Tazewell	Contract Number 89727

This plan has been prepared to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit No. ILR10 (Permit ILR10), issues 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.

Print Name Dave Horton	Title Project Manager	Agency Midwest Engineering Associates
Signature 		Date 08/17/2021

I. Site Description

- A. Provide a description of the project location (include latitude and longitude):
The project extends along Broadway Road from Veterans Drive (40.567910,-89.578678) to Springfield Road (40.568010, -89.531412)
- B. Provide a description of the construction activity which is subject of this plan:
Includes construction of the following: Shoulder construction, culverts, concrete gutter, HMA surface removal, HMA surfacing, grading, topsoil and seeding.
- C. Provide the estimated duration of this project:
January 1, 2022 thru November 30, 2022
- D. The total area of the construction site is estimated to be 27.2 acres.
The total area of the site estimated to be disturbed by excavation, grading or other activities is 20.6 acres.
- E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:
0.60
- F. List all soils found within project boundaries. Include map unit name, slope information and erosivity:
279B, Rozetta Silt Loam, 2 to 5% slope
280C2, Fayette Silt Loam, 5 to 10% slope
883G, Senachwine-Hennepin Loam, 35 to 60% slope
- G. Provide an aerial extent of wetland acreage at the site:

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

There are no transverse ditch slopes steeper than 1:4. There are limited areas of ditch profiles that are steeper than 4%.

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 scopes, etc.):

The primary soil disturbance is the construction of the proposed ditches. Both ditches will be reconstructed to 1:4 grades.

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 off site 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:

Tazewell County Highway Department owns the ditches and the flow will be outlet to private property.

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

Tazewell County

M. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. The location of the receiving waters can be found on the erosion and sediment control plans:

The storm sewers drain into natural waterways on private property. The waterways drain to the Illinois River.

N. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes, highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc.

Temporary erosion and permanent erosion measures will be implemented as shown on the plans. Areas outside the proposed right of way will remain undisturbed.

O. The following sensitive environmental resources are associated with this project, and may have the potential to be impacted by the proposed development:

- Floodplain
- Wetland Riparian
- Threatened and Endangered Species
- Historic Preservation
- 303(d) Listed receiving waters for suspended solids, turbidity, or siltation
- Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity, or siltation
- Applicable Federal, Tribal, State or Local Programs
- Other

1. 303(d) Listed receiving waters (fill out this section if checked above):

a. The name(s) of the listed water body, and identification of all pollutants causing impairment:

b. 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:

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

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

[Empty text box for dewatering discharge location]

2. TMDL (fill out this section if checked above)

a. The name(s) of the listed water body:

[Empty text box for water body name]

b. 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 for erosion and sediment control strategy]

c. 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 the allocation:

[Empty text box for waste load allocation steps]

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

- Soil Sediment
- Concrete
- Concrete Truck waste
- Concrete Curing Compounds
- Solid waste Debris
- Paints
- Solvents
- Fertilizers / Pesticides
- Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids)
- Antifreeze / Coolants
- Waste water from cleaning construction equipment
- 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 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 type="checkbox"/> Preservation of Mature Vegetation | <input checked="" type="checkbox"/> Erosion Control Blanket / Mulching |
| <input type="checkbox"/> Vegetated Buffer Strips | <input type="checkbox"/> Sodding |
| <input type="checkbox"/> Protection of Trees | <input type="checkbox"/> Geotextiles |
| <input checked="" type="checkbox"/> Temporary Erosion Control Seeding | <input checked="" type="checkbox"/> Other (specify) Riprap |
| <input type="checkbox"/> Temporary Turf (Seeding, Class 7) | <input checked="" type="checkbox"/> Other (specify) Silt Fence |
| <input type="checkbox"/> Temporary Mulching | <input checked="" type="checkbox"/> Other (specify) Temporary Ditch Checks |
| <input checked="" type="checkbox"/> Permanent Seeding | <input type="checkbox"/> Other (specify) _____ |

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

Erosion control will be established by installing silt fence on the perimeter of erodible areas. Temporary ditch checks and temporary seeding will be utilized in a timely manner to stabilize soil until permanent seeding can be completed. Inlet filters will be utilized to control soil loss into the storm sewer.

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

Riprap will be used to stabilize steeper slopes. Seeding will be used to stabilize flatter slopes.

- 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.

The following stabilization practices will be used for this project:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Perimeter Erosion Barrier | <input checked="" type="checkbox"/> Rock Outlet Protection |
| <input checked="" type="checkbox"/> Temporary Ditch Check | <input checked="" type="checkbox"/> Riprap |
| <input checked="" type="checkbox"/> Storm Drain Inlet Protection | <input type="checkbox"/> Gabions |
| <input type="checkbox"/> Sediment Trap | <input type="checkbox"/> Slope Mattress |
| <input type="checkbox"/> Temporary Pipe Slope Drain | <input type="checkbox"/> Retaining Walls |
| <input type="checkbox"/> Temporary Sediment Basin | <input type="checkbox"/> Slope Walls |
| <input type="checkbox"/> Temporary Stream Crossing | <input type="checkbox"/> Concrete Revetment Mats |
| <input type="checkbox"/> Stabilized Construction Exits | <input type="checkbox"/> Level Spreaders |
| <input type="checkbox"/> Turf Reinforcement Mats | <input type="checkbox"/> Other (specify) _____ |
| <input type="checkbox"/> Permanent Check Dams | <input type="checkbox"/> Other (specify) _____ |
| <input type="checkbox"/> Permanent Sediment Basin | <input type="checkbox"/> Other (specify) _____ |
| <input type="checkbox"/> Aggregate Ditch | <input type="checkbox"/> Other (specify) _____ |
| <input type="checkbox"/> Paved Ditch | <input type="checkbox"/> Other (specify) _____ |

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

Riprap will be used to stabilize steeper ditch slopes and used at the outlet of culverts where needed. Silt fence and outlet protection will be utilized during construction. Temporary ditch checks will be constructed in new ditches.

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

Riprap will be used to stabilize steeper ditch slopes and used at the outlet of storm sewers.

D. **Treatment Chemicals**

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

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

E. **Permanent 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.

1. 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 on the basis of the technical guidance in Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT Bureau of Design & Environment 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.

2. 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:

Drop manholes are being used to mitigate outlet velocities of culverts on steep slopes.

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 Illinois Environmental Protection Agency'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:

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 construction entrances/exits)
 - 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 operations
 - Time frame for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.
 - Permanent stabilization activities for each area of the project

2. 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:
- 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 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 to the Contractor for the practices associated with this project. 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 Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

Maintenance of erosion control items will be as described in Section 280 of the Standard Specifications, including ditch checks, temporary seeding for erosion control when necessary and cleaning of silt as required due to field conditions and repairing damage as it occurs.

IV. Inspections

Qualified personnel shall inspect disturbed areas of the construction site 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 e-mail 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

Additional Inspections Required:

--

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.



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 Contractors/subcontractor completing this form.

Route Broadway Road	Marked Route Broadway Road	Section 13-00089-02-SD; 13-000-03-RS
Project Number TMRP(282)	County Tazewell	Contract Number 89727

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. ILR10 that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

In addition, 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

Print Name 	Signature
Title 	Date
Name of Firm 	Telephone
Street Address 	City/State/Zip

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

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 3.

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 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.

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

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

CONCRETE BOX CULVERTS WITH SKEWS > 30 DEGREES AND DESIGN FILLS ≤ 5 FEET (BDE)

Effective: April 1, 2012

Revised: July 1, 2016

Revise the second paragraph of Article 540.04 of the Standard Specifications to read:

“Unless otherwise noted on the plans, the Contractor shall have the option, when a cast-in-place concrete box culvert is specified, of constructing the box culvert using precast box culvert sections when the design cover is 6 in. (150 mm) minimum. The precast box culvert sections shall be designed for the same design cover shown on the plans for cast-in-place box culvert; shall be of equal or larger size opening, and shall satisfy the design requirements of ASTM C 1577.”

Add the following after the seventh paragraph of Article 540.06 of the Standard Specifications:

“Precast concrete box culverts with skews greater than 30 degrees and having design covers less than or equal to 5 ft are not covered by the standard design table shown in ASTM C 1577. The design table provided herein is provided to address this design range. The same notes, reinforcement configurations, clearances, and requirements of ASTM C 1577 apply to this special design table. A box designated 7 x 6 x 8 indicates a span of 7 ft, a rise of 6 ft, and top slab, bottom slab, walls and haunches of 8 in. unless otherwise noted on the tables.

3 ft x 2 ft x 4 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.17	1.10	0.30	0.10	0.28	0.17	0.92	0.14	
2<3	0.14	0.18	0.19	0.10					31
3-5	0.10	0.12	0.12	0.10					29

*top slab 7.0 in., bottom slab 6.0 in.

3 ft x 3 ft x 4 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.17	1.17	0.33	0.10	0.31	0.17	0.92	0.14	
2<3	0.10	0.22	0.22	0.10					31
3-5	0.10	0.14	0.14	0.10					31

*top slab 7.0 in., bottom slab 6.0 in.

4 ft x 2 ft x 5 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.21	0.88	0.26	0.12	0.28	0.18	0.89	0.14	
2<3	0.20	0.21	0.20	0.12					33
3-5	0.13	0.13	0.14	0.12					32

*top slab 7.5 in., bottom slab 6.0 in.

4 ft x 3 ft x 5 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.18	1.02	0.31	0.12	0.32	0.18	0.87	0.14	
2<3	0.16	0.25	0.24	0.12					38
3-5	0.12	0.16	0.17	0.12					34

*top slab 7.5 in., bottom slab 6.0 in.

4 ft x 4 ft x 5 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.18	1.08	0.34	0.12	0.34	0.18	0.86	0.14	
2<3	0.13	0.28	0.27	0.12					38
3-5	0.12	0.18	0.19	0.12					38

*top slab 7.5 in., bottom slab 6.0 in.

5 ft x 2 ft x 6 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.27	0.63	0.23	0.14	0.24	0.19	0.19	0.17	
2<3	0.25	0.22	0.20	0.14					37
3-5	0.17	0.15	0.15	0.14					35

*top slab 8.0 in., bottom slab 7.0 in.

5 ft x 3 ft x 6 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.20	0.72	0.27	0.14	0.29	0.19	.071	0.17	
2<3	0.21	0.26	0.25	0.14					37
3-5	0.14	0.18	0.18	0.14					35

*top slab 8.0 in., bottom slab 7.0 in.

5 ft x 4 ft x 6 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.19	0.78	0.30	0.14	0.31	0.19	0.70	0.17	
2<3	0.18	0.30	0.28	0.14					45
3-5	0.14	0.20	0.21	0.14					40

*top slab 8.0 in., bottom slab 7.0 in.

5 ft x 5 ft x 6 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.19	0.82	0.33	0.14	0.34	0.19	0.69	0.17	
2<3	0.16	0.33	0.32	0.14					45
3-5	0.14	0.22	0.23	0.14					45

*top slab 8.0 in., bottom slab 7.0 in.

6 ft x 2 ft x 7 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.33	0.51	0.21	0.17	0.23	0.19	0.61	0.17	
2<3	0.31	0.22	0.22	0.17					42
3-5	0.22	0.17	0.17	0.17					41

*top slab 8.0 in.

6 ft x 3 ft x 7 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.27	0.58	0.26	0.17	0.27	0.19	0.58	0.17	
2<3	0.26	0.27	0.27	0.17					41
3-5	0.18	0.19	0.20	0.17					39

*top slab 8.0 in.

6 ft x 4 ft x 7 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.25	0.64	0.30	0.17	0.30	0.19	0.57	0.17	
2<3	0.23	0.31	0.31	0.17					42
3-5	0.17	0.22	0.23	0.17					41

*top slab 8.0 in.

6 ft x 5 ft x 7 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in. / ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.23	0.68	0.33	0.17	0.32	0.19	0.56	0.17	
2<3	0.20	0.34	0.35	0.17					52
3-5	0.17	0.24	0.25	0.17					48

*top slab 8.0 in.

6 ft x 6 ft x 7 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2*	0.21	0.72	0.37	0.17	0.34	0.19	0.55	0.17	
2<3	0.18	0.37	0.38	0.17					52
3-5	0.17	0.26	0.28	0.17					52

*top slab 8.0 in.

7 ft x 2 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.38	0.60	0.26	0.19	0.22	0.19	0.75	0.19	
2<3	0.38	0.24	0.24	0.19					46
3-5	0.27	0.19	0.19	0.19					44

7 ft x 3 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.36	0.57	0.32	0.19	0.25	0.19	0.71	0.19	
2<3	0.33	0.29	0.30	0.19					44
3-5	0.23	0.21	0.21	0.19					42

7 ft x 4 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.34	0.61	0.37	0.19	0.27	0.19	0.70	0.19	
2<3	0.29	0.34	0.34	0.19					44
3-5	0.21	0.24	0.25	0.19					42

7 ft x 5 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.32	0.65	0.42	0.19	0.30	0.19	0.69	0.19	
2<3	0.26	0.37	0.38	0.19					49
3-5	0.19	0.27	0.28	0.19					46

7 ft x 6 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.29	0.69	0.46	0.19	0.32	0.19	0.67	0.19	
2<3	0.23	0.40	0.42	0.19					59
3-5	0.19	0.29	0.30	0.19					55

7 ft x 7 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.27	0.73	0.50	0.19	0.34	0.19	0.65	0.19	
2<3	0.21	0.43	0.45	0.19					59
3-5	0.19	0.31	0.33	0.19					59

8 ft x 2 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.47	0.50	0.29	0.19	0.23	0.19	0.61	0.19	
2<3	0.51	0.30	0.31	0.19					50
3-5	0.36	0.22	0.22	0.19					48

8 ft x 3 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.43	0.49	0.35	0.19	0.26	0.19	0.58	0.19	
2<3	0.45	0.36	0.37	0.19					48
3-5	0.32	0.26	0.27	0.19					45

8 ft x 4 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.40	0.52	0.40	0.19	0.29	0.19	0.57	0.19	
2<3	0.40	0.42	0.43	0.19					45
3-5	0.28	0.30	0.31	0.19					45

8 ft x 5 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.37	0.56	0.45	0.19	0.31	0.19	0.56	0.19	
2<3	0.36	0.46	0.47	0.19					48
3-5	0.26	0.33	0.34	0.19					45

8 ft x 6 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.34	0.61	0.49	0.19	0.33	0.19	0.56	0.19	
2<3	0.33	0.50	0.52	0.19					56
3-5	0.24	0.36	0.37	0.19					50

8 ft x 7 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.32	0.65	0.53	0.19	0.35	0.19	0.56	0.19	
2<3	0.30	0.53	0.56	0.19					65
3-5	0.22	0.38	0.40	0.19					61

8 ft x 8 ft x 8 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.30	0.69	0.57	0.19	0.36	0.19	0.55	0.19	
2<3	0.28	0.56	0.59	0.19					65
3-5	0.20	0.40	0.43	0.19					65

9 ft x 2 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.46	0.35	0.26	0.22	0.22	0.22	0.47	0.22	
2<3	0.58	0.32	0.32	0.22					55
3-5	0.41	0.23	0.23	0.22					52

9 ft x 3 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.42	0.35	0.32	0.22	0.23	0.22	0.47	0.22	
2<3	0.52	0.38	0.39	0.22					52
3-5	0.37	0.27	0.28	0.22					49

9 ft x 4 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.38	0.38	0.36	0.22	0.25	0.22	0.47	0.22	
2<3	0.47	0.44	0.45	0.22					52
3-5	0.33	0.31	0.32	0.22					49

9 ft x 5 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.35	0.41	0.41	0.22	0.28	0.22	0.47	0.22	
2<3	0.43	0.49	0.50	0.22					49
3-5	0.30	0.35	0.36	0.22					49

9 ft x 6 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in. / ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.32	0.44	0.44	0.22	0.29	0.22	0.47	0.22	
2<3	0.39	0.53	0.54	0.22					55
3-5	0.28	0.38	0.39	0.22					52

9 ft x 7 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in. / ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.30	0.46	0.48	0.22	0.31	0.22	0.45	0.22	
2<3	0.36	0.56	0.59	0.22					64
3-5	0.26	0.40	0.42	0.22					58

9 ft x 8 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.28	0.49	0.52	0.22	0.33	0.22	0.45	0.22	
2<3	0.33	0.60	0.63	0.22					72
3-5	0.24	0.43	0.45	0.22					72

9 ft x 9 ft x 9 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.27	0.51	0.55	0.22	0.34	0.22	0.45	0.22	
2<3	0.31	0.63	0.66	0.22					72
3-5	0.23	0.45	0.48	0.22					72

10 ft x 2 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.46	0.29	0.24	0.24	0.24	0.24	0.34	0.24	
2<3	0.66	0.33	0.34	0.24					59
3-5	0.46	0.24	0.24	0.24					59

10 ft x 3 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.44	0.33	0.30	0.24	0.24	0.24	0.24	0.24	
2<3	0.59	0.40	0.41	0.24					59
3-5	0.42	0.29	0.29	0.24					56

10 ft x 4 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.40	0.36	0.35	0.24	0.24	0.24	0.24	0.24	
2<3	0.54	0.46	0.47	0.24					56
3-5	0.38	0.33	0.34	0.24					52

10 ft x 5 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.37	0.39	0.39	0.24	0.26	0.24	0.24	0.24	
2<3	0.49	0.51	0.52	0.24					52
3-5	0.35	0.36	0.38	0.24					52

10 ft x 6 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.34	0.42	0.43	0.24	0.28	0.24	0.42	0.24	
2<3	0.45	0.55	0.57	0.24					56
3-5	0.33	0.40	0.41	0.24					52

10 ft x 7 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.32	0.44	0.46	0.24	0.30	0.24	0.24	0.24	
2<3	0.42	0.59	0.62	0.24					59
3-5	0.31	0.42	0.45	0.24					56

10 ft x 8 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in. / ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.30	0.47	0.50	0.24	0.31	0.24	0.24	0.24	
2<3	0.39	0.63	0.66	0.24					75
3-5	0.29	0.45	0.48	0.24					66

10 ft x 9 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.28	0.49	0.53	0.24	0.33	0.24	0.24	0.24	
2<3	0.37	0.66	0.70	0.24					79
3-5	0.27	0.47	0.51	0.24					79

10 ft x 10 ft x 10 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.27	0.51	0.56	0.24	0.34	0.24	0.24	0.24	
2<3	0.35	0.69	0.74	0.24					79
3-5	0.26	0.50	0.54	0.24					79

11 ft x 2 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.50	0.27	0.26	0.26	0.26	0.26	0.26	0.26	
2<3	0.73	0.35	0.35	0.26					67
3-5	0.52	0.26	0.26	0.26					63

11 ft x 3 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.45	0.31	0.29	0.26	0.26	0.26	0.26	0.26	
2<3	0.67	0.42	0.43	0.26					63
3-5	0.47	0.30	0.31	0.26					60

11 ft x 4 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.41	0.34	0.33	0.26	0.26	0.26	0.26	0.26	
2<3	0.61	0.48	0.49	0.26					60
3-5	0.43	0.35	0.35	0.26					56

11 ft x 5 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.38	0.37	0.37	0.26	0.26	0.26	0.26	0.26	
2<3	0.56	0.53	0.54	0.26					56
3-5	0.40	0.38	0.39	0.26					56

11 ft x 6 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.35	0.40	0.40	0.26	0.26	0.26	0.26	0.26	
2<3	0.52	0.58	0.60	0.26					56
3-5	0.37	0.42	0.43	0.26					56

11 ft x 7 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.33	0.42	0.43	0.26	0.28	0.26	0.26	0.26	
2<3	0.48	0.62	0.64	0.26					60
3-5	0.35	0.44	0.47	0.26					56

11 ft x 8 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.31	0.45	0.47	0.26	0.30	0.26	0.26	0.26	
2<3	0.45	0.66	0.69	0.26					67
3-5	0.33	0.47	0.50	0.26					63

11 ft x 9 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.30	0.47	0.50	0.26	0.31	0.26	0.26	0.26	
2<3	0.43	0.69	0.73	0.26					85
3-5	0.31	0.49	0.53	0.26					70

11 ft x 10 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.28	0.49	0.53	0.26	0.33	0.26	0.26	0.26	
2<3	0.41	0.73	0.77	0.26					86
3-5	0.30	0.52	0.56	0.26					86

11 ft x 11 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								
	As1	As2	As3	As4	As5	As6	As7	As8	"M", in.
0<2	0.27	0.51	0.56	0.26	0.34	0.26	0.26	0.26	
2<3	0.39	0.76	0.81	0.26					86
3-5	0.29	0.55	0.59	0.26					86

12 ft x 2 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.51	0.29	0.29	0.29	0.29	0.29	0.29	0.29	
2<3	0.81	0.37	0.37	0.29					71
3-5	0.57	0.29	0.29	0.29					68

12 ft x 3 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.46	0.29	0.29	0.29	0.29	0.29	0.29	0.29	
2<3	0.74	0.44	0.44	0.29					68
3-5	0.53	0.32	0.32	0.29					64

12 ft x 4 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.42	0.33	0.31	0.29	0.29	0.29	0.29	0.29	
2<3	0.68	0.50	0.51	0.29					64
3-5	0.49	0.36	0.37	0.29					60

12 ft x 5 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.39	0.35	0.34	0.29	0.29	0.29	0.29	0.29	
2<3	0.63	0.55	0.56	0.29					64
3-5	0.45	0.40	0.41	0.29					60

12 ft x 6 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.36	0.38	0.38	0.29	0.29	0.29	0.29	0.29	
2<3	0.59	0.60	0.62	0.29					60
3-5	0.42	0.44	0.45	0.29					56

12 ft x 7 ft x 11 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.34	0.41	0.42	0.29	0.29	0.29	0.29	0.29	
2<3	0.55	0.65	0.67	0.29					60
3-5	0.40	0.47	0.49	0.29					60

12 ft x 8 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.32	0.43	0.45	0.29	0.29	0.29	0.29	0.29	
2<3	0.52	0.69	0.72	0.29					67
3-5	0.38	0.50	0.52	0.29					64

12 ft x 9 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.30	0.45	0.47	0.29	0.29	0.29	0.29	0.29	
2<3	0.49	0.73	0.76	0.29					75
3-5	0.36	0.52	0.56	0.29					68

12 ft x 10 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.29	0.48	0.50	0.29	0.30	0.29	0.29	0.29	
2<3	0.46	0.76	0.80	0.29					93
3-5	0.34	0.55	0.59	0.29					79

12 ft x 11 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.29	0.50	0.53	0.29	0.32	0.29	0.29	0.29	
2<3	0.44	0.79	0.85	0.29					91
3-5	0.33	0.57	0.62	0.29					79

12 ft x 12 ft x 12 in.									
Design Earth Cover, ft	Circumferential Reinforcement Areas, sq in./ ft								"M", in.
	As1	As2	As3	As4	As5	As6	As7	As8	
0<2	0.29	0.52	0.56	0.29	0.33	0.29	0.29	0.29	
2<3	0.43	0.83	0.89	0.29					93
3-5	0.32	0.60	0.65	0.29					93"

80293

CONCRETE END SECTIONS FOR PIPE CULVERTS (BDE)

Effective: January 1, 2013

Revised: April 1, 2016

Description. This work shall consist of constructing cast-in-place concrete and precast concrete end sections for pipe culverts. These end sections are shown on the plans as Highway Standard 542001 or 542011. This work shall be according to Section 542 of the Standard Specifications except as modified herein.

Materials. Materials shall be according to the following Articles of Division 1000 – Materials of the Standard Specifications.

Item	Article/Section
(a) Portland Cement Concrete (Note 1)	1020
(b) Precast Concrete End Sections (Note 2)	
(c) Coarse Aggregate (Note 3)	1004.05
(d) Structural Steel (Note 4)	1006.04
(e) Anchor Bolts and Rods (Note 5)	1006.09
(f) Reinforcement Bars	1006.10(a)
(g) Nonshrink Grout	1024.02
(h) Chemical Adhesive Resin System	1027
(i) Mastic Joint Sealer for Pipe	1055
(j) Hand Hole Plugs	1042.16

Note 1. Cast-in-place concrete end sections shall be Class SI, except the 14 day mix design shall have a compressive strength of 5000 psi (34,500 kPa) or a flexural strength of (800 psi) 5500 kPa and a minimum cement factor of 6.65 cwt/cu yd (395 kg/cu m).

Note 2. Precast concrete end sections shall be according to Articles 1042.02 and 1042.03(b)(c)(d)(e) of the Standard Specifications. The concrete shall be Class PC according to Section 1020, and shall have a minimum compressive strength of 5000 psi (34,000 kPa) at 28 days.

Joints between precast sections shall be produced with reinforced tongue and groove ends according to the requirements of ASTM C 1577.

Note 3. The granular bedding placed below a precast concrete end section shall be gradation CA 6, CA 9, CA 10, CA 12, CA 17, CA 18, or CA 19.

Note 4. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable.

Note 5. The anchor rods for the culvert ties shall be according to the requirements of ASTM F 1554, Grade 105 (Grade 725).

CONSTRUCTION REQUIREMENTS

The concrete end sections may be precast or cast-in-place construction. Toe walls shall be either precast or cast-in-place, and shall be in proper position and backfilled according to the applicable paragraphs of Article 502.10 of the Standard Specifications prior to the installation of the concrete end sections. If soil conditions permit, cast-in-place toe walls may be poured directly against the soil. When poured directly against the soil, the clear cover of the sides and bottom of the toe wall shall be increased to 3 in. (75 mm) by increasing the thickness of the toe wall.

- (a) Cast-In-Place Concrete End Sections. Cast-in-place concrete end sections shall be constructed according to the requirements of Section 503 of the Standard Specifications and as shown on the plans.
- (b) Precast Concrete End Sections. When the concrete end sections will be precast, shop drawings detailing the slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval.

The excavation and backfilling for precast concrete end sections shall be according to the requirements of Section 502 of the Standard Specifications, except a layer of granular bedding at least 6 in. (150 mm) in thickness shall be placed below the elevation of the bottom of the end section. The granular bedding shall extend a minimum of 2 ft (600 mm) beyond each side of the end section.

Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 2/3 turn on one of the nuts. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut.

When individual, precast end sections are placed side-by-side for a multi-pipe culvert installation, a 3 in. (75 mm) space shall be left between adjacent end section walls and the space(s) filled with Class Sl concrete.

Method of Measurement. This work will be measured for payment as each, with each end of each culvert being one each.

Basis of Payment. This work will be paid for at the contract unit price per each for CONCRETE END SECTION, STANDARD 542001 or CONCRETE END SECTION, 542011, of the pipe diameter and slope specified.

80311

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 6.00 % 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

DISPOSAL FEES (BDE)

Effective: November 1, 2018

Replace Articles 109.04(b)(5) – 109.04(b)(8) of the Standard Specifications with the following:

- “(5) Disposal Fees. When the extra work performed includes paying for disposal fees at a clean construction and demolition debris facility, an uncontaminated soil fill operation or a landfill, the Contractor shall receive, as administrative costs, an amount equal to five percent of the first \$10,000 and one percent of any amount over \$10,000 of the total approved costs of such fees.
- (6) Miscellaneous. No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.
- (7) Statements. No payment will be made for work performed on a force account basis until the Contractor has furnished the Engineer with itemized statements of the cost of such force account work. Statements shall be accompanied and supported by invoices for all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor’s stock, then in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from his/her stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

Itemized statements at the cost of force account work shall be detailed as follows.

- a. Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman. Payrolls shall be submitted to substantiate actual wages paid if so requested by the Engineer.
 - b. Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.
 - c. Quantities of materials, prices and extensions.
 - d. Transportation of materials.
 - e. Cost of property damage, liability and workmen’s compensation insurance premiums, unemployment insurance contributions, and social security tax.
- (8) Work Performed by an Approved Subcontractor. When extra work is performed by an approved subcontractor, the Contractor shall receive, as administrative costs, an amount equal to five percent of the total approved costs of such work with the minimum payment being \$100.

- (9) All statements of the cost of force account work shall be furnished to the Engineer not later than 60 days after receipt of the Central Bureau of Construction form "Extra Work Daily Report". If the statement is not received within the specified time frame, all demands for payment for the extra work are waived and the Department is released from any and all such demands. It is the responsibility of the Contractor to ensure that all statements are received within the specified time regardless of the manner or method of delivery."

80402

EMULSIFIED ASPHALTS (BDE)

Effective: August 1, 2019

Revise Article 1032.06 of the Standard Specifications to read:

“1032.06 Emulsified Asphalts. Emulsified asphalts will be accepted according to the current Bureau of Materials Policy Memorandum, “Emulsified Asphalt Acceptance Procedure”. These materials shall be homogeneous and shall show no separation of asphalt after thorough mixing, within 30 days after delivery, provided separation has not been caused by freezing. They shall coat the aggregate being used in the work to the satisfaction of the Engineer and shall be according to the following requirements.

- (a) Anionic Emulsified Asphalt. Anionic emulsified asphalts RS-1, RS-2, HFRS-2, SS-1h, and SS-1 shall be according to AASHTO M 140, except as follows.
 - (1) The cement mixing test will be waived when the emulsion is being used as a tack coat.
 - (2) The Solubility in Trichloroethylene test according to AASHTO T 44 may be run in lieu of Ash Content and shall meet a minimum of 97.5 percent.
- (b) Cationic Emulsified Asphalt. Cationic emulsified asphalts CRS-1, CRS-2, CSS-1h, and CSS-1 shall be according to AASHTO M 208, except as follows.
 - (1) The cement mixing test will be waived when the emulsion is being used as a tack coat.
 - (2) The Solubility in Trichloroethylene test according to AASHTO T 44 may be run in lieu of Ash Content and shall meet a minimum of 97.5 percent.
- (c) High Float Emulsion. High float emulsions HFE-90, HFE-150, and HFE-300 are medium setting and shall be according to the following table.

Test	HFE-90	HFE-150	HFE-300
Viscosity, Saybolt Furol, at 122 °F (50 °C), (AASHTO T 59), SFS ^{1/}	50 min.	50 min.	50 min.
Sieve Test, No. 20 (850 µm), retained on sieve, (AASHTO T 59), %	0.10 max.	0.10 max.	0.10 max.
Storage Stability Test, 1 day, (AASHTO T 59), %	1 max.	1 max.	1 max.
Coating Test (All Grades), (AASHTO T 59), 3 minutes	stone coated thoroughly		
Distillation Test, (AASHTO T 59): Residue from distillation test to 500 °F (260 °C), % Oil distillate by volume, %	65 min. 7 max.	65 min. 7 max.	65 min. 7 max.

Characteristics of residue from distillation test to 500 °F (260 °C): Penetration at 77 °F (25 °C), (AASHTO T 49), 100 g, 5 sec, dmm	90-150	150-300	300 min.
Float Test at 140 °F (60 °C), (AASHTO T 50), sec.	1200 min.	1200 min.	1200 min.

1/ The emulsion shall be pumpable.

- (d) Penetrating Emulsified Prime. Penetrating Emulsified Prime (PEP) shall be according to AASHTO T 59, except as follows.

Test	Result
Viscosity, Saybolt Furol, at 77 °F (25 °C), SFS	75 max.
Sieve test, retained on No. 20 (850 µm) sieve, %	0.10 max.
Distillation to 500 °F (260 °C) residue, %	38 min.
Oil distillate by volume, %	4 max.

The PEP shall be tested according to the current Bureau of Materials Illinois Laboratory Test Procedure (ILTP), "Sand Penetration Test of Penetrating Emulsified Prime (PEP)". The time of penetration shall be equal to or less than that of MC-30. The depth of penetration shall be equal to or greater than that of MC-30.

- (e) Delete this subparagraph.
- (f) Polymer Modified Emulsified Asphalt. Polymer modified emulsified asphalts, e.g. SS-1hP, CSS-1hP, CRS-2P (formerly CRSP), CQS-1hP (formerly CSS-1h Latex Modified) and HFRS-2P (formerly HFP) shall be according to AASHTO M 316, except as follows.
- (1) The cement mixing test will be waived when the polymer modified emulsion is being used as a tack coat.
 - (2) CQS-1hP (formerly CSS-1h Latex Modified) emulsion for micro-surfacing treatments shall use latex as the modifier.
 - (3) Upon examination of the storage stability test cylinder after standing undisturbed for 24 hours, the surface shall show minimal to no white, milky colored substance and shall be a homogenous brown color throughout.
 - (4) The distillation for all polymer modified emulsions shall be performed according to AASHTO T 59, except the temperature shall be 374 ± 9 °F (190 ± 5 °C) to be held for a period of 15 minutes and measured using an ASTM 16F (16C) thermometer.
 - (5) The specified temperature for the Elastic Recovery test for all polymer modified emulsions shall be 50.0 ± 1.0 °F (10.0 ± 0.5 °C).

(6) The Solubility in Trichloroethylene test according to AASHTO T 44 may be run in lieu of Ash Content and shall meet a minimum of 97.5 percent.

(g) Non-Tracking Emulsified Asphalt. Non-tracking emulsified asphalt NTEA (formerly SS-1vh) shall be according to the following.

Test	Requirement
Saybolt Viscosity at 77 °F (25 °C), (AASHTO T 59), SFS	20-100
Storage Stability Test, 24 hr, (AASHTO T 59), %	1 max.
Residue by Distillation, 500 ± 10 °F (260 ± 5 °C), or Residue by Evaporation, 325 ± 5 °F (163 ± 3 °C), (AASHTO T 59), %	50 min.
Sieve Test, No. 20 (850 µm), (AASHTO T 59), %	0.3 max.
Tests on Residue from Evaporation	
Penetration at 77 °F (25 °C), 100 g, 5 sec, (AASHTO T 49), dmm	40 max.
Softening Point, (AASHTO T 53), °F (°C)	135 (57) min.
Ash Content, (AASHTO T 111), % ^{1/}	1 max.

1/ The Solubility in Trichloroethylene test according to AASHTO T 44 may be run in lieu of Ash Content and shall meet a minimum of 97.5 percent

The different grades are, in general, used for the following.

Grade	Use
SS-1, SS-1h, RS-1, RS-2, CSS-1, CRS-1, CRS-2, CSS-1h, HFE-90, SS-1hP, CSS-1hP, NTEA (formerly SS-1vh)	Tack Coat
PEP	Prime Coat
RS-2, HFE-90, HFE-150, HFE-300, CRS-2P (formerly CRSP), HFRS-2P (formerly HFP), CRS-2, HFRS-2	Bituminous Surface Treatment
CQS-1hP (formerly CSS-1h Latex Modified)	Micro-Surfacing Slurry Sealing Cape Seal™

80415

ENGINEER'S FIELD OFFICE AND LABORATORY (BDE)

Effective: January 1, 2020

Revise the last sentence of the first paragraph of Article 670.01 of the Standard Specifications to read:

“The building shall remain available for use until released by the Engineer.”

Revise the fifth and sixth paragraphs of Article 670.02 of the Standard Specifications to read:

“Sanitary facilities shall include hot and cold potable running water, lavatory and toilet as an integral part of the office where available. A portable toilet, if necessary, shall be serviced once per week. Solid waste disposal consisting of two waste baskets and an outside trash container of sufficient size to accommodate a weekly provided pick-up service.

In addition, the following furniture and equipment meeting the approval of the Engineer shall be furnished.”

Revise Article 670.02(b) through 670.02(r) of the Standard Specifications to read:

- “(b) One desk with minimum working surface of 48 x 72 in. (1.2 x 1.8 m).
- (c) Two free standing four drawer legal size file cabinets with lock and an underwriters' laboratories insulated file device 350 degrees one hour rating.
- (d) Table(s) and chairs capable of seating 10 people.
- (e) One equipment cabinet of minimum inside dimension of 44 in. (1100 mm) high x 24 in. (600 mm) wide x 30 in. (750 mm) deep with lock. The walls shall be of steel with a 3/32 in. (2 mm) minimum thickness with concealed hinges and enclosed lock constructed in such a manner as to prevent entry by force. The cabinet assembly shall be permanently attached to a structural element of the field office in a manner to prevent theft of the entire cabinet.
- (f) One refrigerator with a minimum size of 14 cu ft (0.40 cu m) with a freezer unit.
- (g) One electric desk type tape printing calculator.
- (h) A minimum of two communication paths. The configuration shall include:
 - (1) Internet Connection. An internet service connection with a wireless router capable of providing service to a minimum of five devices. The internet service shall be for unlimited data with a minimum internet data download speed of 25 megabits per second. For areas where this minimum download speed is not available, the maximum speed available for the area shall be provided.

- (2) Telephone Line. One landline touch tone telephone with voicemail or answering machine. The telephone shall have an unpublished number.
- (i) One plain paper wireless color printer capable of reproducing prints up to 11 x 17 in. (280 x 432 mm) with an automatic feed tray. Separate paper trays for letter size and 11 x 17 in. (280 x 432 mm) paper shall be provided. The wireless printer shall also be equipped to copy in color and scan documents.
- (j) One electric water cooler dispenser.
- (k) One first-aid cabinet fully equipped.
- (l) One microwave oven (minimum 700 watt) with a turntable and 1 cu ft (0.03 cu m) minimum capacity.
- (m) One fire-proof safe, 0.5 cu ft (0.01 cu m) minimum capacity.
- (n) One electric paper shredder.
- (o) One post mounted rain gauge, located on the project site for each 5 miles (8 km) of project length.”

Revise the last sentence of the first paragraph of Articles 670.04 and 670.05 of the Standard Specifications to read:

“Doors and windows shall be equipped with locks.”

Revise Article 670.04(c) through 670.04(n) of the Standard Specifications to read:

“(c) Two folding chairs.

(d) One equipment cabinet of minimum inside dimension of 44 in. (1100 mm) high x 24 in. (600 mm) wide x 30 in. (750 mm) deep with lock. The walls shall be of steel with a 3/32 in. (2 mm) minimum thickness with concealed hinges and enclosed lock constructed to prevent entry by force. The cabinet assembly shall be permanently attached to a structural element of the field office to prevent theft of the entire cabinet.

(e) A minimum of two communication paths. The configuration shall include:

(1) Internet Connection. An internet service connection with a wireless router capable of providing service to a minimum of five devices. The internet service shall be for unlimited data with a minimum internet download speed of 25 megabits per second. For areas where this minimum download speed is not available, the maximum speed available for the area shall be provided.

(2) Telephone Line. One land line touch tone telephone with voicemail or answering machine. The telephone shall have an unpublished number.

(f) One electric desk type tape printing calculator.

(g) One first-aid cabinet fully equipped.

(h) One plain paper wireless color printer capable of reproducing prints up to 11 x 17 in. (280 x 432 mm) with an automatic feed tray. Separate paper trays for letter size and 11 x 17 in. (280 x 432 mm) paper shall be provided. The wireless printer shall also be equipped to copy in color and scan documents.

(i) A portable toilet meeting Federal, State, and local health department requirements shall be provided, maintained clean and in good working condition, and shall be stocked with lavatory and sanitary supplies at all times. The portable toilet shall be serviced once per week.

(j) One electric water cooler dispenser.

(k) One refrigerator with a minimum size of 14 cu ft (0.45 cu m) with a freezer unit.

(l) One microwave oven (minimum 700 watt) with a turntable and 1 cu ft (0.03 cu m) minimum capacity.”

Revise Article 670.05(f) of the Standard Specifications to read:

“(f) One landline touch tone telephone with voicemail or an answering machine. The telephone shall have an unpublished number.”

Delete the last sentence of the second paragraph of Article 670.06 of the Standard Specifications.

Revise the fifth sentence of the first paragraph of Article 670.07 of the Supplemental Specifications to read:

“This price shall include all utility costs and shall reflect the salvage value of the building or buildings, equipment, and furniture which remain the property of the Contractor after release by the Engineer, except the Department will pay that portion of the monthly long distance and monthly local telephone, when combined, exceed \$250.”

80423

HOT-MIX ASPHALT – BINDER AND SURFACE COURSE (BDE)

Effective: July 2, 2019
 Revised: November 1, 2019

Description. This work shall consist of constructing a hot-mix asphalt (HMA) binder and/or surface course on a prepared base. Work shall be according to Sections 406 and 1030 of the Standard Specifications, except as modified herein.

Materials. Add the following after the second paragraph of Article 1003.03(c):

“For mixture IL-9.5FG, at least 67 percent of the required fine aggregate fraction shall consist of either stone sand, slag sand, steel slag sand, or combinations thereof meeting FA 20 gradation.”

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	CA 11 ^{1/}
	SMA 12.5 ^{2/}	CA 13, CA 14, or CA 16
	SMA 9.5 ^{2/}	CA 13 or CA 16 ^{3/}
	IL-9.5	CA 16
	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 stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation and mineral filler to meet the approved mix design and the mix requirements noted herein.

3/ The specified coarse aggregate gradations may be blended.”

HMA Nomenclature. 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, SMA 9.5
------------	----------------	---

	Surface Courses	IL-9.5, IL-9.5FG, SMA 12.5, SMA 9.5”
--	-----------------	---

Mixture Design. Revise the table in Article 1030.04(a)(1) and add SMA 9.5 and IL-9.5FG mixture compositions as follows:

“HIGH ESAL, MIXTURE COMPOSITION (% PASSING) ^{1/}						
Sieve Size	SMA 12.5 ^{5/}		SMA 9.5 ^{5/}		IL-9.5FG	
	min.	max.	min.	max.	min.	max.
1 in. (25 mm)						
3/4 in. (19 mm)		100		100		
1/2 in. (12.5 mm)	90	99	95	100		100
3/8 in. (9.5 mm)	50	85	70	95	90	100
#4 4.75 mm)	20	40	30	50	60	75
#8 (2.36 mm)	16	24 ^{4/}	20	30	45	60
#16 (1.18 mm)				21	25	40
#30 (600 μm)				18	15	30
#50 (300 μm)				15	8	15
#100 (150 μm)					6	10
#200 (75 μm)	8.0	11.0 ^{3/}	8.0	11.0 ^{3/}	4.0	6.5
#635 (20 μm)		≤ 3.0		≤ 3.0		
Ratio of Dust/Asphalt Binder						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 N_{design} = 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 24 percent.
- 5/ When the bulk specific gravity (Gsb) of the component aggregates vary by more than 0.2, the blend gradations shall be based on volumetric percentage.”

Revise the table in Article 1030.04(b)(1) to read:

“VOLUMETRIC REQUIREMENTS, High ESAL				
Ndesign	Voids in the Mineral Aggregate (VMA), % minimum			Voids Filled with Asphalt Binder (VFA), %
	IL-19.0	IL-9.5 IL-9.5FG	IL-4.75 ^{1/}	
50	13.5	15.0	18.5	65 - 78 ^{2/}
70			65 – 75 ^{3/}	
90				

- 1/ Maximum draindown for IL-4.75 shall be 0.3 percent.
- 2/ VFA for IL-4.75 shall be 76-83 percent.
- 3/ VFA for IL-9.5FG shall be 65-78 percent.”

Revise the table in Article 1030.04(b)(3) to read:

“VOLUMETRIC REQUIREMENTS, SMA 12.5 ^{1/} and SMA 9.5 ^{1/}				
ESALs (million)	Ndesign	Design Air Voids Target, %	Voids in the Mineral Aggregate (VMA), % min.	Voids Filled with Asphalt (VFA), %
≤ 10	50	4.0	16.0	75 – 80
> 10	80	4.0	17.0	75 – 80

- 1/ Maximum draindown shall be 0.3 percent.”

Quality Control/Quality Assurance (QC/QA). Revise the third paragraph of Article 1030.05(d)(3) to read:

“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."

Add the following paragraphs to the end of Article 1030.05(d)(3):

"Longitudinal joint density testing shall be performed at each random density test location. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 4 in. (100 mm), from each pavement edge (i.e. for a 5 in. (125 mm) lift the near edge of the density gauge or core barrel shall be within 5 in. (125 mm) from the edge of pavement). Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.

- a. Confined Edge. Each confined edge density shall be represented by a one-minute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.
- b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced 10 ft (3 m) apart longitudinally along the unconfined pavement edge and centered at the random density test location.

When a longitudinal joint sealant (LJS) is applied, longitudinal joint density testing will not be required on the joint(s) sealed."

Revise the second table in Article 1030.05(d)(4) and its notes to read:

"DENSITY CONTROL LIMITS			
Mixture Composition	Parameter	Individual Test (includes confined edges)	Unconfined Edge Joint Density, minimum
IL-4.75	Ndesign = 50	93.0 – 97.4 % ^{1/}	91.0%
IL-9.5FG	Ndesign = 50 - 90	93.0 – 97.4 %	91.0%
IL-9.5	Ndesign = 90	92.0 – 96.0 %	90.0%
IL-9.5, IL-9.5L,	Ndesign < 90	92.5 – 97.4 %	90.0%
IL-19.0	Ndesign = 90	93.0 – 96.0 %	90.0%
IL-19.0, IL-19.0L	Ndesign < 90	93.0 ^{2/} – 97.4 %	90.0%
SMA	Ndesign = 50 or 80	93.5 – 97.4 %	91.0%

1/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.

2/ 92.0 % when placed as first lift on an unimproved subgrade.”

Equipment. Add the following to Article 1101.01 of the Standard Specifications:

“(h) Oscillatory Roller. The oscillatory roller shall be self-propelled and provide a smooth operation when starting, stopping, or reversing directions. The oscillatory roller shall be able to operate in a mode that will provide tangential impact force with or without vertical impact force by using at least one drum. The oscillatory roller shall be equipped with water tanks and sprinkling devices, or other approved methods, which shall be used to wet the drums to prevent material pickup. The drum(s) amplitude and frequency of the tangential and vertical impact force shall be approximately the same in each direction and meet the following requirements:

- (1) The minimum diameter of the drum(s) shall be 42 in. (1070 mm);
- (2) The minimum length of the drum(s) shall be 57 in. (1480 mm);
- (3) The minimum unit static force on the drum(s) shall be 125 lb/in. (22 N/m); and
- (4) The minimum force on the oscillatory drum shall be 18,000 lb (80 kN).”

CONSTRUCTION REQUIREMENTS

Add the following to Article 406.03 of the Standard Specifications:

“(j) Oscillatory Roller 1101.01”

Revise the third paragraph of Article 406.05(a) to read:

“All depressions of 1 in. (25 mm) or more in the surface of the existing pavement shall be filled with binder. At locations where heavy disintegration and deep spalling exists, the area shall be cleaned of all loose and unsound material, tacked, and filled with binder (hand method).”

Revise Article 406.05(c) to read.

“(c) Binder (Hand Method). Binder placed other than with a finishing machine will be designated as binder (hand method) and shall be compacted with a roller to the satisfaction of the Engineer. Hand tamping will be permitted when approved by the Engineer.”

Revise the special conditions for mixture IL-4.75 in Article 406.06(b)(2)e. to read:

“e. The mixture shall be overlaid within 5 days of being placed.”

Revise Article 406.06(d) to read:

“(d) Lift Thickness. The minimum compacted lift thickness for HMA binder and surface courses shall be as follows.

MINIMUM COMPACTED LIFT THICKNESS	
Mixture Composition	Thickness, in. (mm)
IL-4.75	3/4 (19) - over HMA surfaces ^{1/} 1 (25) - over PCC surfaces ^{1/}
IL-9.5FG	1 1/4 (32)
IL-9.5, IL-9.5L	1 1/2 (38)
SMA 9.5	1 1/2 (38)
SMA 12.5	2 (51)
IL-19.0, IL-19.0L	2 1/4 (57)

1/ The maximum compacted lift thickness for mixture IL-4.75 shall be 1 1/4 in. (32 mm).”

Revise Table 1 and Note 3/ of Table 1 in Article 406.07(a) of the Standard Specifications to read:

“TABLE 1 - MINIMUM ROLLER REQUIREMENTS FOR HMA				
	Breakdown Roller (one of the following)	Intermediate Roller	Final Roller (one or more of the following)	Density Requirement
Binder and Surface ^{1/}	V _D , P ^{3/} , T _B , 3W, O _T , O _B	P ^{3/} , O _T , O _B	V _S , T _B , T _F , O _T	As specified in Articles: 1030.05(d)(3), (d)(4), and (d)(7).
IL-4.75 and SMA ^{4/ 5/}	T _B , 3W, O _T	--	T _F , 3W, O _T	
Bridge Decks ^{2/}	T _B	--	T _F	As specified in Articles 582.05 and 582.06.

3/ A vibratory roller (V_D) or oscillatory roller (O_T or O_B) may be used in lieu of the pneumatic-tired roller on mixtures containing polymer modified asphalt binder.”

Add the following to EQUIPMENT DEFINITION in Article 406.07(a) contained in the Errata of the Supplemental Specifications:

“O_T - Oscillatory roller, tangential impact mode. Maximum speed is 3.0 mph (4.8 km/h) or 264 ft/min (80 m/min).

O_B - Oscillatory roller, tangential and vertical impact mode, operated at a speed to produce not less than 10 vertical impacts/ft (30 impacts/m).”

Basis of Payment. Replace the second through the fifth paragraphs of Article 406.14 with the following:

“HMA binder and surface courses will be paid for at the contract unit price per ton (metric ton) for MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS; HOT-MIX ASPHALT BINDER COURSE (HAND METHOD), of the N_{design} specified; HOT-MIX ASPHALT BINDER COURSE, of the mixture composition and N_{design} specified; HOT-MIX ASPHALT SURFACE COURSE, of the mixture composition, friction aggregate, and N_{design} specified; POLYMERIZED HOT-MIX ASPHALT BINDER COURSE (HAND METHOD), of the N_{design} specified; POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, of the mixture composition and N_{design} specified; POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, of the mixture composition, friction aggregate, and N_{design} specified; POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, of the mixture composition and N_{design} specified; POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, of the mixture composition, friction aggregate, and N_{design} specified.”

80416

HOT-MIX ASPHALT – LONGITUDINAL JOINT SEALANT (BDE)

Effective: August 1, 2018

Revised: November 1, 2019

Add the following to Article 406.02 of the Standard Specifications.

“(d) Longitudinal Joint Sealant (LJS)1032”

Add the following to Article 406.03 of the Standard Specifications.

“(k) Longitudinal Joint Sealant (LJS) Pressure Distributor (Note 2)

(l) Longitudinal Joint Sealant (LJS) Melter Kettle (Note 3)

Note 2. When a pressure distributor is used to apply the LJS, the distributor shall be equipped with a heating and recirculating system along with a functioning auger agitating system or vertical shaft mixer in the hauling tank to prevent localized overheating. The distributor shall be equipped with a guide or laser system to aid in proper placement of the LJS application.

Note 3. When a melter kettle is used to transport and apply the LJS, the melter kettle shall be an oil jacketed double-boiler with agitating and recirculating systems. Material from the kettle may be dispensed through a pressure feed wand with an applicator shoe or through a pressure feed wand into a hand-operated thermal push cart.”

Revise Article 406.06(g)(2) of the Standard Specifications to read:

“(2) Longitudinal Joints. Unless prohibited by stage construction, any HMA lift shall be complete before construction of the subsequent lift. The longitudinal joint in all lifts shall be at the centerline of the pavement if the roadway comprises two lanes in width, or at lane width if the roadway is more than two lanes in width.

When stage construction prohibits the total completion of a particular lift, the longitudinal joint in one lift shall be offset from the longitudinal joint in the preceding lift by not less than 3 in. (75 mm). The longitudinal joint in the surface course shall be at the centerline of the pavement if the roadway comprises two lanes in width, or at lane width if the roadway is more than two lanes in width.

A notched wedge longitudinal joint shall be used between successive passes of HMA binder course that has a difference in elevation of greater than 2 in. (50 mm) between lanes on pavement that is open to traffic.

The notched wedge longitudinal joint shall consist of a 1 to 1 1/2 in. (25 to 38 mm) vertical notch at the lane line, a 9 to 12 in. (230 to 300 mm) wide uniform taper sloped toward and extending into the open lane, and a second 1 to 1 1/2 in. (25 to 38 mm) vertical notch at the outside edge.

The notched wedge longitudinal joint shall be formed by the strike off device on the paver. The wedge shall then be compacted by the joint roller.

Tack coat shall be applied to the entire surface of the notched wedge joint immediately prior to placing the adjacent lift of binder. The material shall be uniformly applied at a rate of 0.05 to 0.1 gal/sq yd (0.2 to 0.5 L/sq m).

When the use of longitudinal joint sealant (LJS) is specified, the surface to which the LJS is applied shall be thoroughly cleaned and dry. The LJS may be placed before or after the tack coat. When placed after the tack coat, the tack shall be fully cured prior to placement of the LJS.

The LJS shall be applied in a single pass with a pressure distributor, melter kettle, or hand applied from a roll. At the time of installation, the pavement surface temperature and the ambient temperature shall be a minimum of 40 °F (4 °C) and rising.

The LJS shall be applied at a width of 18 in. (450 mm) ± 1 1/2 in. (38 mm) and centered ± 2 in. (± 50 mm) under the joint of the next HMA lift to be constructed. If the LJS flows more than 2 in. (50 mm) from the initial placement width, LJS placement shall stop and remedial action shall be taken.

When starting another run of LJS placement, suitable release paper shall be placed over the previous application of LJS to prevent doubling up of thickness of LJS.

The application rate of LJS shall be according to the following.

LJS Application Table			
Overlay Thickness in. (mm)	Coarse Graded Application Rate ^{1/} (IL-19.0, IL-19.0L, IL-9.5, IL-9.5L, IL-4.75) lb/ft (kg/m)	Fine Graded Application Rate ^{1/} lb/ft (kg/m)	SMA Mixtures ^{1/2/}
3/4 (19)	0.88 (1.31)		
1 (25)	1.15 (1.71)		
1 1/4 (32)	1.31 (1.95)	0.88 (1.31)	
1 1/2 (38)	1.47 (2.19)	0.95 (1.42)	1.26 (1.88)
1 3/4 (44)	1.63 (2.43)	1.03 (1.54)	1.38 (2.06)
2 (50)	1.80 (2.68)	1.11 (1.65)	1.51 (2.25)
≥ 2 1/4 (60)	1.96 (2.92)		

1/ The application rate has a surface demand for liquid included within it. The thickness of the LJS may taper from the center of the application to a lesser thickness on the edge of the application, provided the correct width and application rate are maintained.

2/ If the joint is between SMA and either Coarse Graded or Fine Graded, the SMA rate shall be used.

The Contractor shall furnish to the Engineer a bill of lading for each tanker supplying material to the project. The application rate of LJS shall be verified within the first 1000 ft (300 m) of the day's placement and every 12,000 ft (3600 m) thereafter. A suitable paper or pan shall be placed at a random location in the path of the LJS. After application of the LJS, the paper or pan shall be picked up, weighed, and the application rate calculated. The tolerance between the application rate shown in the LJS Application Table and the calculated rate shall be ± 10 percent. The LJS shall be replaced in the area where the sample was taken.

A 1 qt (1 L) sample shall be taken from the pressure distributor or melting kettle at the jobsite once for each contract and sent to the Central Bureau of Materials.

The LJS shall be suitable for construction traffic to drive on without pickup or tracking of the LJS within 30 minutes of placement. If pickup or tracking occurs, LJS placement shall stop and damaged areas shall be repaired.

Prior to paving, the Contractor shall ensure the paver end plate and grade control device is adequately raised above the finished height of the LJS.

The LJS shall not flush to the final surface of the HMA pavement.”

Add the following paragraph after the second paragraph of Article 406.13(b) of the Standard Specifications.

“Application of longitudinal joint sealant (LJS) will be measured for payment in place in feet (meters).”

Add the following paragraph after the first paragraph of Article 406.14 of the Standard Specifications.

“Longitudinal joint sealant will be paid for at the contract unit price per foot (meter) for LONGITUDINAL JOINT SEALANT.”

Add the following to Section 1032 of the Standard Specifications.

“1032.12 Longitudinal Joint Sealant (LJS). Longitudinal joint sealant (LJS) will be accepted according to the current Bureau of Materials and Physical Research Policy Memorandum, “Performance Graded Asphalt Binder Acceptance Procedure” with the following exceptions: Article 3.1.9 and 3.4.1.4 of the policy memorandum will be excluded. The bituminous material used for the LJS shall be according to the following table. Elastomers shall be added to a base asphalt and shall be either a styrene-butadiene diblock or triblock copolymer without oil extension, or a styrene-butadiene rubber. Air blown asphalt, acid modification, or other modifiers will not be allowed. LJS in the form of pre-formed rollout banding may also be used.

Test	Test Requirement	Test Method
Dynamic shear @ 88°C (unaged), G*/sin δ, kPa	1.00 min.	AASHTO T 315
Creep stiffness @ -18°C (unaged), Stiffness (S), MPa m-value	300 max. 0.300 min.	AASHTO T 313
Ash, %	1.0 – 4.0	AASHTO T 111
Elastic Recovery, 100 mm elongation, cut immediately, 25°C, %	70 min.	ASTM D 6084 (Procedure A)
Separation of Polymer, Difference in °C of the softening point (ring and ball)	3 max.	ITP Separation of Polymer from Asphalt Binder”

80398

MANHOLES, VALVE VAULTS, AND FLAT SLAB TOPS (BDE)

Effective: January 1, 2018

Revised: March 1, 2019

Description. In addition to those manufactured according to the current standards included in this contract, manholes, valve vaults, and flat slab tops manufactured prior to March 1, 2019, according to the previous Highway Standards listed below will be accepted on this contract:

Product	Previous Standards		
Precast Manhole Type A, 4' (1.22 m) Diameter	602401-05	602401-04	602401-03
Precast Manhole Type A, 5' (1.52 m) Diameter	602402-01	602402	602401-03
Precast Manhole Type A, 6' (1.83 m) Diameter	602406-09	602406-08	602406-07
Precast Manhole Type A, 7' (2.13 m) Diameter	602411-07	602411-06	602411-05
Precast Manhole Type A, 8' (2.44 m) Diameter	602416-07	602416-06	602416-05
Precast Manhole Type A, 9' (2.74 m) Diameter	602421-07	602421-06	602421-05
Precast Manhole Type A, 10' (3.05 m) Diameter	602426-01	602426	
Precast Valve Vault Type A, 4' (1.22 m) Diameter	602501-04	602501-03	602501-02
Precast Valve Vault Type A, 5' (1.52 m) Diameter	602506-01	602506	602501-02
Precast Reinforced Concrete Flat Slab Top	602601-05	602601-04	

The following revisions to the Standard Specifications shall apply to manholes, valve vaults, and flat slab tops manufactured according to the current standards included in this contract:

Revise Article 602.02(g) of the Standard Specifications to read:

“(g) Structural Steel (Note 4) 1006.04

Note 4. All components of the manhole joint splice shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable.”

Add the following to Article 602.02 of the Standard Specifications:

“(s) Anchor Bolts and Rods (Note 5) 1006.09

Note 5. The threaded rods for the manhole joint splice shall be according to the requirements of ASTM F 1554, Grade 55, (Grade 380).”

Revise the second paragraph of Article 1042.10 of the Standard Specifications to read:

“Catch basin Types A, B, C, and D; Manhole Type A; Inlet Types A and B; Drainage Structures Types 1, 2, 3, 4, 5, and 6; Valve Vault Type A; and reinforced concrete flat slab top (Highway Standard 602601) shall be manufactured according to AASHTO M 199 (M 199M), except the minimum wall thickness shall be as shown on the plans. Additionally, catch basins, inlets, and drainage structures shall have a minimum concrete compressive strength of 4500 psi

(31,000 kPa) at 28 days and manholes, valve vaults, and reinforced concrete flat slab tops shall have a minimum concrete compressive strength of 5000 psi (34,500 kPa) at 28 days.”

80393

MATERIAL TRANSFER DEVICE (BDE)

Effective: June 15, 1999

Revised: August 1, 2014

Description. This work shall consist of placing HMA binder and surface course mixtures according to Section 406 of the Standard Specifications, except that these materials shall be placed using a material transfer device (MTD).

Materials and Equipment. The MTD shall have a minimum surge capacity of 15 tons (13.5 metric tons), shall be self-propelled and capable of moving independent of the paver, and shall be equipped with the following:

- (a) Front-Dump Hopper and Conveyor. The conveyor shall provide a positive restraint along the sides of the conveyor to prevent material spillage. MTDs having paver style hoppers shall have a horizontal bar restraint placed across the foldable wings which prevents the wings from being folded.
- (b) Paver Hopper Insert. The paver hopper insert shall have a minimum capacity of 14 tons (12.7 metric tons).
- (c) Mixer/Agitator Mechanism. This re-mixing mechanism shall consist of a segmented, anti-segregation, re-mixing auger or two full-length longitudinal paddle mixers designed for the purpose of re-mixing the hot-mix asphalt (HMA). The longitudinal paddle mixers shall be located in the paver hopper insert.

CONSTRUCTION REQUIREMENTS

General. The MTD shall be used for the placement of all HMA binder and surface course mixtures placed with a paver including mainline pavement but excluding shoulders. The MTD speed shall be adjusted to the speed of the paver to maintain a continuous, non-stop paving operation.

Use of a MTD with a roadway contact pressure exceeding 25 psi (172 kPa) will be limited to partially completed segments of full-depth HMA pavement where the thickness of binder in place is 10 in. (250 mm) or greater.

Structures. The MTD may be allowed to travel over structures under the following conditions:

- (a) Approval will be given by the Engineer.
- (b) The vehicle shall be emptied of HMA material prior to crossing the structure and shall travel at crawl speed across the structure.
- (c) The tires of the vehicle shall travel on or in close proximity and parallel to the beam and/or girder lines of the structure.

Method of Measurement. This work will be measured for payment in tons (metric tons) for all HMA binder and surface course materials placed with a material transfer device.

Basis of Payment. This work will be paid for at the contract unit price per ton (metric ton) for MATERIAL TRANSFER DEVICE.

The various HMA mixtures placed with the MTD will be paid for as specified in their respective specifications. The Contractor may choose to use the MTD for other applications on this project; however, no additional compensation will be allowed.

80045

MOBILIZATION (BDE)

Effective: April 1, 2020

Replace Articles 671.02(a), (b), and (c) of the Standard Specifications with the following:

“(a) Upon execution of the contract, 90 percent of the pay item will be paid.

(b) When 90 percent of the adjusted contract value is earned, the remaining ten percent of the pay item will be paid along with any amount bid in excess of six percent of the original contract amount.”

80428

PORTLAND CEMENT CONCRETE – HAUL TIME (BDE)

Effective: July 1, 2020

Revise Article 1020.11(a)(7) of the Standard Specifications to read:

“(7) Haul Time. Haul time shall begin when the delivery ticket is stamped. The delivery ticket shall be stamped no later than five minutes after the addition of the mixing water to the cement, or after the addition of the cement to the aggregate when the combined aggregates contain free moisture in excess of two percent by weight (mass). If more than one batch is required for charging a truck using a stationary mixer, the time of haul shall start with mixing of the first batch. Haul time shall end when the truck is emptied for incorporation of the concrete into the work. The maximum haul time shall be as follows.

Concrete Temperature at Point of Discharge, °F (°C)	Maximum Haul Time ^{1/} (minutes)	
	Truck Mixer or Truck Agitator	Nonagitator Truck
50 - 64 (10 - 17.5)	90	45
> 64 (> 17.5) - without retarder	60	30
> 64 (> 17.5) - with retarder	90	45

1/ To encourage start-up testing for mix adjustments at the plant, the first two trucks will be allowed an additional 15 minutes haul time whenever such testing is performed.

For a mixture which is not mixed on the jobsite, a delivery ticket shall be required for each load. The following information shall be recorded on each delivery ticket: (1) ticket number; (2) name of producer and plant location; (3) contract number; (4) name of Contractor; (5) stamped date and time batched; (6) truck number; (7) quantity batched; (8) amount of admixture(s) in the batch; (9) amount of water in the batch; and (10) Department mix design number.

For concrete mixed in jobsite stationary mixers, the above delivery ticket may be waived, but a method of verifying the haul time shall be established to the satisfaction of the Engineer.”

80430

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

Effective: November 1, 2012

Revised: January 2, 2021

Revise Section 1031 of the Standard Specifications to read:

“SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

1031.01 Description. Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

- (a) Reclaimed Asphalt Pavement (RAP). RAP is the material produced by cold milling or crushing an existing hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.
- (b) Reclaimed Asphalt Shingles (RAS). RAS is the material produced from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material by weight of RAS, as defined in the Bureau of Materials Policy Memorandum, “Reclaimed Asphalt Shingle (RAS) Sources”. RAS shall come from a facility source on the Department’s “Qualified Producer List of Certified Sources for Reclaimed Asphalt Shingles” where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 93 percent passing the #4 (4.75 mm) sieve based on a dry shake gradation. RAS shall be uniform in gradation and asphalt binder content and shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.
 - (1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.
 - (2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

1031.02 Stockpiles. RAP and RAS stockpiles shall be according to the following.

- (a) RAP Stockpiles. The Contractor shall construct individual RAP stockpiles meeting one of the following definitions. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type as listed below (i.e. “Homogeneous Surface”).

Prior to milling, the Contractor shall request the Department provide documentation on the quality of the RAP to clarify the appropriate stockpile.

- (1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. FRAP shall be fractionated prior to testing by screening into a minimum of two size fractions with the separation occurring on or between the No. 4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP in the coarse fraction shall pass the maximum sieve size specified for the mixture composition of the mix design.
- (2) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures and represent: 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogeneous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.
- (3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. Conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag.
- (4) Conglomerate "D" Quality (Conglomerate DQ). Conglomerate DQ RAP stockpiles shall be according to Articles 1031.02(a)(1)-1031.02(a)(3), except they may also consist of RAP from HMA shoulders, bituminous stabilized subbases, or HMA (High or Low ESAL) binder mixture. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content.
- (5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP/FRAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, non-bituminous surface treatment (i.e. high friction surface treatments), pavement fabric, joint sealants, plant cleanout, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

- (b) RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall not be intermingled. Each stockpile shall be signed indicating what type of RAS is present.

Unless otherwise specified by the Engineer, mechanically blending manufactured sand (FM 20 or FM 22) or fine FRAP up to an equal weight of RAS with the processed RAS will be permitted to improve workability. The sand shall be B quality or better from an

approved Aggregate Gradation Control System source. The sand shall be accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type, and lot number shall be maintained by project contract number and kept for a minimum of three years.

Additional processed RAP/FRAP/RAS shall be stockpiled in a separate working pile, as designated in the QC Plan, and only added to the original stockpile after the test results for the working pile are found to meet the requirements specified in Articles 1031.03 and 1031.04.

1031.03 Testing. RAP/FRAP and RAS testing shall be according to the following.

(a) RAP/FRAP Testing. When used in HMA, the RAP/FRAP shall be sampled and tested either during or after stockpiling.

(1) During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2,000 tons (1,800 metric tons) and one sample per 2,000 tons (1,800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4,000 tons (3,600 metric tons).

(2) After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the Department proposing a satisfactory method of sampling and testing the RAP/FRAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Each sample shall be split to obtain two equal samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall perform a washed extraction on the other test sample according to Illinois Modified AASHTO T 164. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

(b) RAS Testing. RAS or RAS blended with manufactured sand shall be sampled and tested during stockpiling according to the Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Source".

Samples shall be collected during stockpiling at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1,000 tons (900 metric tons) and one sample per 500 tons (450 metric tons) or a minimum of once per week, whichever is more frequent, thereafter. A minimum of five samples are required for stockpiles less than 1,000 tons (900 metric tons).

Before testing, each sample shall be split to obtain two test samples. One of the two test samples from the final split shall be labeled and stored for Department use. The

Contractor shall perform a washed extraction and test for unacceptable materials on the other test sample according to Illinois Modified AASHTO T 164. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

The Contractor shall obtain and make available all of the test results from the start of the original stockpile.

1031.04 Evaluation of Tests. Evaluation of test results shall be according to the following.

- (a) Limits of Precision. The limits of precision between the Contractor's and the Department's split sample test results shall be according to the following.

Test Parameter	Limits of Precision		
	RAP	FRAP	RAS
% Passing			
1/2 in. (12.5 mm)	6.0 %	5.0 %	
# 4 (4.75 mm)	6.0 %	5.0 %	
# 8 (2.36 mm)	4.0 %	3.0 %	4.0 %
# 30 (600 μm)	3.0 %	2.0 %	4.0 %
# 200 (75 μm)	2.5 %	2.2 %	4.0 %
Asphalt Binder	0.4 %	0.3 %	3.0 %
G _{mm}	0.035	0.030	

If the test results are outside the above limits of precision, the Department will immediately investigate.

- (b) Evaluation of RAP/FRAP Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation, and when applicable G_{mm}. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	FRAP/Homogeneous/ Conglomerate
1 in. (25 mm)	
1/2 in. (12.5 mm)	± 8 %
# 4 (4.75 mm)	± 6 %
# 8 (2.36 mm)	± 5 %
# 16 (1.18 mm)	
# 30 (600 μm)	± 5 %
# 200 (75 μm)	± 2.0 %
Asphalt Binder	± 0.4 % ^{1/}
G _{mm}	± 0.03 ^{2/}

1/ The tolerance for FRAP shall be ± 0.3 percent.

- 2/ For stockpile with slag or steel slag present as determined in the current Manual of Test Procedures Appendix B 21, "Determination of Aggregate Bulk (Dry) Specific Gravity (Gsb) of Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)".

If more than 20 percent of the test results for an individual parameter (individual sieves, G_{mm} , and/or asphalt binder content) are out of the above tolerances, the RAP/FRAP shall not be used in HMA unless the RAP/FRAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the Department for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for solvent extractions according to the document "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

- (c) Evaluation of RAS and RAS Blended with Manufactured Sand or Fine FRAP Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. Individual test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	RAS
# 8 (2.36 mm)	± 5 %
# 16 (1.18 mm)	± 5 %
# 30 (600 μm)	± 4 %
# 200 (75 μm)	± 2.5 %
Asphalt Binder Content	± 2.0 %

If more than 20 percent of the test results for an individual parameter (individual sieves and/or asphalt binder content) are out of the above tolerances, or if the unacceptable material exceeds 0.5 percent by weight of material retained on the No. 4 (4.75 mm) sieve, the RAS or RAS blend shall not be used in Department projects. All test data and acceptance ranges shall be sent to the Department for evaluation.

1031.05 Quality Designation of Aggregate in RAP/FRAP.

- (a) RAP. The aggregate quality of the RAP for homogeneous, conglomerate, and conglomerate DQ stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.
- (1) RAP from Class I, HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
 - (2) RAP from Class I binder, HMA (High ESAL) binder, or (Low ESAL) IL-19.0L binder mixtures are designated as containing Class C quality coarse aggregate.

(3) RAP from BAM stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.

(b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Coarse and fine FRAP stockpiles containing plus No. 4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant laboratory prequalified by the Department for the specified testing. The consultant laboratory shall submit the test results along with the recovered aggregate sample to the District Office. Consultant laboratory services will be at no additional cost to the Department. The District will forward the sample to the Central Bureau of Materials Aggregate Lab for MicroDeval Testing, according to ITP 327. A maximum loss of 15.0 percent will be applied for all HMA applications.

1031.06 Use of RAP/FRAP and/or RAS in HMA. The use of RAP/FRAP and/or RAS shall be the Contractor's option when constructing HMA in all contracts.

(a) RAP/FRAP. The use of RAP/FRAP in HMA shall be as follows.

(1) Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.

(2) Steel Slag Stockpiles. Homogeneous RAP stockpiles containing steel slag will be approved for use in all HMA (High ESAL and Low ESAL) surface and binder mixture applications.

(3) Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be FRAP or homogeneous in which the coarse aggregate is Class B quality or better. FRAP from conglomerate stockpiles shall be considered equivalent to limestone for frictional considerations. Known frictional contributions from plus No. 4 (4.75 mm) homogeneous FRAP stockpiles will be accounted for in meeting frictional requirements in the specified mixture.

(4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP, homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.

(5) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, homogeneous, or conglomerate.

- (6) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in Article 1031.06(c)(1) below for a given Ndesign.
- (b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.
- (c) RAP/FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with RAP or FRAP in HMA mixtures up to a maximum of 5.0 percent by weight of the total mix.
- (1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement (ABR) shall not exceed the amounts listed in the following table.

HMA Mixtures - RAP/RAS Maximum ABR % ^{1/2/}			
Ndesign	Binder	Surface	Polymer Modified Binder or Surface
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).

- (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
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).

1031.07 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the detailed requirements specified herein.

- (a) RAP/FRAP and/or RAS. RAP/FRAP and/or RAS mix designs shall be submitted for verification. If additional RAP/FRAP and/or RAS stockpiles are tested and found that no more than 20 percent of the individual parameter test results, as defined in Article 1031.04, are outside of the control tolerances set for the original RAP/FRAP and/or RAS stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP/FRAP and/or RAS stockpiles may be used in the original mix design at the percent previously verified.
- (b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design.

The RAP, FRAP, and RAS stone bulk specific gravities (G_{sb}) shall be according to the "Determination of Aggregate Bulk (Dry) Specific Gravity (G_{sb}) of Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)" procedure in the Department's Manual of Test Procedures for Materials.

1031.08 HMA Production. HMA production utilizing RAP/FRAP and/or RAS shall be as follows.

To remove or reduce agglomerated material, a scalping screen, gator, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAP/FRAP and/or RAS feed system to remove or reduce oversized material.

If the RAP/FRAP and/or RAS control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP/FRAP and/or RAS and either switch to the virgin aggregate design or submit a new mix design.

- (a) RAP/FRAP. The coarse aggregate in all RAP/FRAP used shall be equal to or less than the nominal maximum size requirement for the HMA mixture being produced.
- (b) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within

± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.

(c) RAP/FRAP and/or RAS. HMA plants utilizing RAP/FRAP and/or RAS shall be capable of automatically recording and printing the following information.

(1) Dryer Drum Plants.

- a. Date, month, year, and time to the nearest minute for each print.
- b. HMA mix number assigned by the Department.
- c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- d. Accumulated dry weight of RAP/FRAP/RAS in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
- f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
- g. Residual asphalt binder in the RAP/FRAP/RAS material as a percent of the total mix to the nearest 0.1 percent.
- h. Aggregate and RAP/FRAP/RAS moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP/FRAP/RAS are recorded in a wet condition.)
- i. A positive dust control system shall be utilized when the combined contribution of reclaimed material passing the No. 200 sieve exceeds 1.5 percent.

(2) Batch Plants.

- a. Date, month, year, and time to the nearest minute for each print.
- b. HMA mix number assigned by the Department.
- c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
- d. Mineral filler weight to the nearest pound (kilogram).
- e. RAP/FRAP/RAS weight to the nearest pound (kilogram).

- f. Virgin asphalt binder weight to the nearest pound (kilogram).
- g. Residual asphalt binder in the RAP/FRAP/RAS material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

1031.09 RAP in Aggregate Applications. RAP in aggregate applications shall be according to the Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications" and the following.

- (a) RAP in Aggregate Surface Course and Aggregate Wedge Shoulders, Type B. The use of RAP in aggregate surface course (temporary access entrances only) and aggregate wedge shoulders, Type B shall be as follows.
 - (1) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply.
 - (2) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted.
- (b) RAP in Aggregate Subgrade Improvement (ASI). RAP in ASI shall be according to Article 1031.06, except "Conglomerate DQ" and "Non-Quality" may be used."

80306

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2019

Revised: January 1, 2020

Revise Section 669 of the Standard Specifications to read:

“SECTION 669. REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

669.01 Description. This work shall consist of the transportation and proper disposal of regulated substances. This work shall also consist of the removal, transportation, and proper disposal of underground storage tanks (UST), their contents and associated underground piping to the point where the piping is above the ground, including determining the content types and estimated quantities.

669.02 Equipment. The Contractor shall notify the Engineer of the delivery of all excavation, storage, and transportation equipment to a work area location. The equipment shall comply with OSHA and American Petroleum Institute (API) guidelines and shall be furnished in a clean condition. Clean condition means the equipment does not contain any residual material classified as a non-special waste, non-hazardous special waste, or hazardous waste. Residual materials include, but are not limited to, petroleum products, chemical products, sludges, or any other material present in or on equipment.

Before beginning any associated soil or groundwater management activity, the Contractor shall provide the Engineer with the opportunity to visually inspect and approve the equipment. If the equipment contains any contaminated residual material, decontamination shall be performed on the equipment as appropriate to the regulated substance and degree of contamination present according to OSHA and API guidelines. All cleaning fluids used shall be treated as the contaminant unless laboratory testing proves otherwise.

669.03 Pre-Construction Submittals and Qualifications. Prior to beginning this work, or working in areas with regulated substances, the Contractor shall submit a “Regulated Substances Pre-Construction Plan (RSPCP)” to the Engineer for review and approval using form BDE 2730. The form shall be signed by an Illinois licensed Professional Engineer or Professional Geologist.

As part of the RSPCP, the Contractor(s) or firm(s) performing the work shall meet the following qualifications.

- (a) Regulated Substances Monitoring. Qualification for environmental observation and field screening of regulated substances work and environmental observation of UST removal shall require either pre-qualification in Hazardous Waste by the Department or demonstration of acceptable project experience in remediation and operations for contaminated sites in accordance with applicable Federal, State, or local regulatory requirements using BDE 2730.

Qualification for each individual performing regulated substances monitoring shall require a minimum of one-year of experience in similar activities as those required for the project.

- (b) Underground Storage Tank Removal. Qualification for underground storage tank (UST) removal work shall require licensing and certification with the Office of the State Fire Marshall (OSFM) and possession of all permits required to perform the work. A copy of the permit shall be provided to the Engineer prior to tank removal.

The qualified Contractor(s) or firm(s) shall also document it does not have any current or former ties with any of the properties contained within, adjoining, or potentially affecting the work.

The Engineer will require up to 21 calendar days for review of the RSPCP. The review may involve rejection or revision and resubmittal; in which case, an additional 21 days will be required for each subsequent review. Work shall not commence until the RSPCP has been approved by the Engineer. After approval, the RSPCP shall be revised as necessary to reflect changed conditions in the field and documented using BDE 2730A "Regulated Substances Pre-Construction Plan (RSPCP) Addendum" and submitted to the Engineer for approval.

CONSTRUCTION REQUIREMENTS

669.04 Regulated Substances Monitoring. Regulated substances monitoring includes environmental observation and field screening during regulated substances management activities at the contract specific work areas. As part of the regulated substances monitoring, the monitoring personnel shall perform and document the applicable duties listed on form BDE 2732 "Regulated Substances Monitoring Daily Record (RSMDR)".

- (a) Environmental Observation. Prior to beginning excavation, the Contractor shall mark the limits of the contract specific work areas. Once work begins, the monitoring personnel shall be present on-site continuously during the excavation and loading of material.
- (b) Field Screening. Field screening shall be performed during the excavation and loading of material from the contract specific work areas, except for material classified according to Article 669.05(b)(1) or 669.05(c) where field screening is not required.

Field screening shall be performed with either a photoionization detector (PID) (minimum 10.6eV lamp) or a flame ionization detector (FID), and other equipment as appropriate, to monitor for potential contaminants associated with regulated substances. The PID or FID shall be calibrated on-site, and background level readings taken and recorded daily, and as field and weather conditions change. Field screen readings on the PID or FID in excess of background levels indicates the potential presence of regulated substances requiring handling as a non-special waste, special waste, or hazardous waste. PID or FID readings may be used as the basis of increasing the limits of removal with the approval of the Engineer but shall in no case be used to decrease the limits.

669.05 Regulated Substances Management and Disposal. The management and disposal of soil and/or groundwater containing regulated substances shall be according to the following:

- (a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in soil established pursuant to Subpart F of 35 Ill. Adm. Code 1100.605, the soil shall be managed as follows:
 - (1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC, but still considered within area background levels by the Engineer, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable. If the soils cannot be utilized within the right-of-way, they shall be managed and disposed of at a landfill as a non-special waste.
 - (2) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County identified in 35 Ill. Admin. Code 742 Appendix A. Table G, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of at a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation (USFO) within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (5) When the Engineer determines soil cannot be managed according to Articles 669.05(a)(1) through (a)(4) above and the materials do not contain special waste or hazardous waste, as determined by the Engineer, the soil shall be managed and disposed of at a landfill as a non-special waste.
 - (6) When analytical results indicate soil is hazardous by characteristic or listing pursuant to 35 Ill. Admin. Code 721, contains radiological constituents, or the Engineer otherwise determines the soil cannot be managed according to Articles 669.05(a)(1)

through (a)(5) above, the soil shall be managed and disposed of off-site as a special waste or hazardous waste as applicable.

(b) Soil Analytical Results Do Not Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels do not exceed the most stringent MAC, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site according to Article 202.03. However, the excavated soil cannot be taken to a CCDD facility or an USFO for any of the following reasons.

(1) The pH of the soil is less than 6.25 or greater than 9.0.

(2) The soil exhibited PID or FID readings in excess of background levels.

(c) Soil Analytical Results Exceed Most Stringent MAC but Do Not Exceed Tiered Approach to Corrective Action Objectives (TACO) Residential. When the soil analytical results indicate that detected levels exceed the most stringent MAC but do not exceed TACO Tier 1 Soil Remediation Objectives for Residential Properties pursuant to 35 Ill. Admin. Code 742 Appendix B Table A, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site according to Article 202.03. However, the excavated soil cannot be taken to a CCDD facility or an USFO.

(d) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Ill. Admin. Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste or hazardous waste as applicable. Special waste groundwater shall be containerized and trucked to an off-site treatment facility, or may be discharged to a sanitary sewer or combined sewer when permitted by the local sewer authority. Groundwater discharged to a sanitary sewer or combined sewer shall be pre-treated to remove particulates and measured with a calibrated flow meter to comply with applicable discharge limits. A copy of the permit shall be provided to the Engineer prior to discharging groundwater to the sanitary sewer or combined sewer.

Groundwater encountered within trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench, it may be discharged to a sanitary sewer or combined sewer when permitted by the local sewer authority, or it shall be containerized and trucked to an off-site treatment facility as a special waste or hazardous waste. The Contractor is prohibited from discharging groundwater within the trench through a storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

One backfill plug shall be placed down gradient to the area of groundwater contamination. Backfill plugs shall be installed at intervals not to exceed 50 ft (15 m). Backfill plugs are to be 4 ft (1.2 m) long, measured parallel to the trench, full trench width and depth. Backfill plugs shall not have any fine aggregate bedding or backfill, but shall be entirely cohesive

soil or any class of concrete. The Contractor shall provide test data that the material has a permeability of less than 10^{-7} cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer.

The Contractor shall use due care when transferring contaminated material from the area of origin to the transporter. Should releases of contaminated material to the environment occur (i.e., spillage onto the ground, etc.), the Contractor shall clean-up spilled material and place in the appropriate storage containers as previously specified. Clean-up shall include, but not be limited to, sampling beneath the material staging area to determine complete removal of the spilled material.

The Contractor shall provide engineered barriers, when required, and shall include materials sufficient to completely line excavation surfaces, including sloped surfaces, bottoms, and sidewall faces, within the areas designated for protection.

The Contractor shall obtain all documentation including any permits and/or licenses required to transport the material containing regulated substances to the disposal facility. The Contractor shall coordinate with the Engineer on the completion of all documentation. The Contractor shall make all arrangements for collection and analysis of landfill acceptance testing. The Contractor shall coordinate waste disposal approvals with the disposal facility.

The Contractor shall provide the Engineer with all transport-related documentation within two days of transport or receipt of said document(s). For management of special or hazardous waste, the Contractor shall provide the Engineer with documentation that the Contractor is operating with a valid Illinois special waste transporter permit at least two weeks before transporting the first load of contaminated material.

Transportation and disposal of material classified according to Article 669.05(a)(5) or 669.05(a)(6) shall be completed each day so that none of the material remains on-site by the close of business, except when temporary staging has been approved.

Any waste generated as a special or hazardous waste from a non-fixed facility shall be manifested off-site using the Department's county generator number provided by the Bureau of Design and Environment. An authorized representative of the Department shall sign all manifests for the disposal of the contaminated material and confirm the Contractor's transported volume. Any waste generated as a non-special waste may be managed off-site without a manifest, a special waste transporter, or a generator number.

The Contractor shall select a landfill permitted for disposal of the contaminant within the State of Illinois. The Department will review and approve or reject the facility proposed by the Contractor to use as a landfill. The Contractor shall verify whether the selected disposal facility is compliant with those applicable standards as mandated by their permit and whether the disposal facility is presently, has previously been, or has never been, on the United States Environmental Protection Agency (U.S. EPA) National Priorities List or the Resource Conservation and Recovery Act (RCRA) List of Violating Facilities. The use of a Contractor selected landfill shall in no manner delay the construction schedule or alter the Contractor's responsibilities as set forth.

669.06 Non-Special Waste Certification. An authorized representative of the Department shall sign and date all non-special waste certifications. The Contractor shall be responsible for providing the Engineer with the required information that will allow the Engineer to certify the waste is not a special waste.

(a) Definition. A waste is considered a non-special waste as long as it is not:

- (1) a potentially infectious medical waste;
- (2) a hazardous waste as defined in 35 Ill. Admin. Code 721;
- (3) an industrial process waste or pollution control waste that contains liquids, as determined using the paint filter test set forth in subdivision (3)(A) of subsection (m) of 35 Ill. Admin. Code 811.107;
- (4) a regulated asbestos-containing waste material, as defined under the National Emission Standards for Hazardous Air Pollutants in 40 CFR Part 61.141;
- (5) a material containing polychlorinated biphenyls (PCB's) regulated pursuant to 40 CFR Part 761;
- (6) a material subject to the waste analysis and recordkeeping requirements of 35 Ill. Admin. Code 728.107 under land disposal restrictions of 35 Ill. Admin. Code 728;
- (7) a waste material generated by processing recyclable metals by shredding and required to be managed as a special waste under Section 22.29 of the Environmental Protection Act; or
- (8) an empty portable device or container in which a special or hazardous waste has been stored, transported, treated, disposed of, or otherwise handled.

(b) Certification Information. All information used to determine the waste is not a special waste shall be attached to the certification. The information shall include but not be limited to:

- (1) the means by which the generator has determined the waste is not a hazardous waste;
- (2) the means by which the generator has determined the waste is not a liquid;
- (3) if the waste undergoes testing, the analytic results obtained from testing, signed and dated by the person responsible for completing the analysis;
- (4) if the waste does not undergo testing, an explanation as to why no testing is needed;

(5) a description of the process generating the waste; and

(6) relevant material safety data sheets.

669.07 Temporary Staging. Soil classified according to Articles 669.05(a)(2), (b)(1), or (c) may be temporarily staged at the Contractor's option. Soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) shall be managed and disposed of without temporary staging to the greatest extent practicable. If circumstances beyond the Contractor's control require temporary staging of these latter materials, the Contractor shall request approval from the Engineer in writing.

Temporary staging shall be accomplished within the right-of-way and the Contractor's means and methods shall be described in the approved or amended RSPCP. Staging areas shall not be located within 200 feet (61 m) of a public or private water supply well; nor within 100 feet (30 m) of sensitive environmental receptor areas, including wetlands, rivers, streams, lakes, or designated habitat zones.

The method of staging shall consist of containerization or stockpiling as applicable for the type, classification, and physical state (i.e., liquid, solid, semisolid) of the material. Materials of different classifications shall be staged separately with no mixing or co-mingling.

When containers are used, the containers and their contents shall remain intact and inaccessible to unauthorized persons until the manner of disposal is determined. The Contractor shall be responsible for all activities associated with the storage containers including, but not limited to, the procurement, transport, and labeling of the containers. The Contractor shall not use a storage container if visual inspection of the container reveals the presence of free liquids or other substances that could cause the waste to be reclassified as a hazardous or special waste.

When stockpiles are used, they shall be covered with a minimum 20-mil plastic sheeting or tarps secured using weights or tie-downs. Perimeter berms or diversionary trenches shall be provided to contain and collect for disposal any water that drains from the soil. Stockpiles shall be managed to prevent or reduce potential dust generation.

When staging non-special waste, special waste, or hazardous waste, the following additional requirements shall apply:

- (a) **Non-Special Waste.** When stockpiling soil classified according to Article 669.05(a)(1) or 669.05(a)(5), an impermeable surface barrier between the materials and the ground surface shall be installed. The impermeable barrier shall consist of a minimum 20-mil plastic liner material and the surface of the stockpile area shall be clean and free of debris prior to placement of the liner. Measures shall also be taken to limit or discourage access to the staging area.
- (b) **Special Waste and Hazardous Waste.** Soil classified according to Article 669.05(a)(6) shall not be stockpiled but shall be containerized immediately upon generation in containers, tanks or containment buildings as defined by RCRA, Toxic Substances Control

Act (TSCA), and other applicable State or local regulations and requirements, including 35 Ill. Admin. Code Part 722, Standards Applicable to Generators of Hazardous Waste.

The staging area(s) shall be enclosed (by a fence or other structure) to restrict direct access to the area, and all required regulatory identification signs applicable to a staging area containing special waste or hazardous waste shall be deployed.

Storage containers shall be placed on an all-weather gravel-packed, asphalt, or concrete surface. Containers shall be in good condition and free of leaks, large dents, or severe rusting, which may compromise containment integrity. Containers must be constructed of, or lined with, materials that will not react or be otherwise incompatible with the hazardous or special waste contents. Containers used to store liquids shall not be filled more than 80 percent of the rated capacity. Incompatible wastes shall not be placed in the same container or comingled.

All containers shall be legibly labeled and marked using pre-printed labels and permanent marker in accordance with applicable regulations, clearly showing the date of waste generation, location and/or area of waste generation, and type of waste. The Contractor shall place these identifying markings on an exterior side surface of the container.

Storage containers shall be kept closed, and storage pads covered, except when access is needed by authorized personnel.

Special waste and hazardous waste shall be transported and disposed within 90 days from the date of generation.

669.08 Underground Storage Tank Removal. For the purposes of this section, an underground storage tank (UST) includes the underground storage tank, piping, electrical controls, pump island, vent pipes and appurtenances.

Prior to removing an UST, the Engineer shall determine whether the Department is considered an "owner" or "operator" of the UST as defined by the UST regulations (41 Ill. Adm. Code Part 176). Ownership of the UST refers to the Department's owning title to the UST during storage, use or dispensing of regulated substances. The Department may be considered an "operator" of the UST if it has control of, or has responsibility for, the daily operation of the UST. The Department may however voluntarily undertake actions to remove an UST from the ground without being deemed an "operator" of the UST.

In the event the Department is deemed not to be the "owner" or "operator" of the UST, the OSFM removal permit shall reflect who was the past "owner" or "operator" of the UST. If the "owner" or "operator" cannot be determined from past UST registration documents from OSFM, then the OSFM removal permit will state the "owner" or "operator" of the UST is the Department. The Department's Office of Chief Counsel (OCC) will review all UST removal permits prior to submitting any removal permit to the OSFM. If the Department is not the "owner" or "operator" of the UST then it will not register the UST or pay any registration fee.

The Contractor shall be responsible for obtaining permits required for removing the UST, notification to the OSFM, using an OSFM certified tank contractor, removal and disposal of the UST and its contents, and preparation and submittal of the OSFM Site Assessment Report in accordance with 41 Ill. Admin. Code Part 176.330.

The Contractor shall contact the Engineer and the OSFM's office at least 72 hours prior to removal to confirm the OSFM inspector's presence during the UST removal. Removal, transport, and disposal of the UST shall be according to the applicable portions of the latest revision of the "American Petroleum Institute (API) Recommended Practice 1604".

The Contractor shall collect and analyze tank content (sludge) for disposal purposes. The Contractor shall remove as much of the regulated substance from the UST system as necessary to prevent further release into the environment. All contents within the tank shall be removed, transported and disposed of, or recycled. The tank shall be removed and rendered empty according to IEPA definition.

The Contractor shall collect soil samples from the bottom and sidewalls of the excavated area in accordance with 35 Ill. Admin. Code Part 734.210(h) after the required backfill has been removed during the initial response action, to determine the level of contamination remaining in the ground, regardless if a release is confirmed or not by the OSFM on-site inspector.

In the event the UST is designated a leaking underground storage tank (LUST) by the OSFM's inspector, or confirmation by analytical results, the Contractor shall notify the Engineer and the District Environmental Studies Unit (DESU). Upon confirmation of a release of contaminants and notifications to the Engineer and DESU, the Contractor shall report the release to the Illinois Emergency Management Agency (IEMA) (e.g., by telephone or electronic mail) and provide them with whatever information is available ("owner" or "operator" shall be stated as the past registered "owner" or "operator", or the IDOT District in which the tank is located and the DESU Manager).

The Contractor shall perform the following initial response actions if a release is indicated by the OSFM inspector:

- (a) Take immediate action to prevent any further release of the regulated substance to the environment, which may include removing, at the Engineer's discretion, and disposing of up to 4 ft (1.2 m) of the contaminated material, as measured from the outside dimension of the tank;
- (b) Identify and mitigate fire, explosion and vapor hazards;
- (c) Visually inspect any above ground releases or exposed below ground releases and prevent further migration of the released substance into surrounding soils and groundwater; and
- (d) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors and free product that have migrated from the tank excavation zone and entered into subsurface structures (such as sewers or basements).

The tank excavation shall be backfilled according to applicable portions of Sections 205, 208, and 550 with a material that will compact and develop stability. All uncontaminated concrete and soil removed during tank extraction may be used to backfill the excavation, at the discretion of the Engineer.

After backfilling the excavation, the site shall be graded and cleaned.

669.09 Regulated Substances Final Construction Report. Not later than 90 days after completing this work, the Contractor shall submit a “Regulated Substances Final Construction Report (RSFCR)” to the Engineer using form BDE 2733 and required attachments. The form shall be signed by an Illinois licensed Professional Engineer or Professional Geologist.

669.10 Method of Measurement. Non-special waste, special waste, and hazardous waste soil will be measured for payment according to Article 202.07(b) when performing earth excavation, Article 502.12(b) when excavating for structures, or by computing the volume of the trench using the maximum trench width permitted and the actual depth of the trench.

Groundwater containerized and transported off-site for management, storage, and disposal will be measured for payment in gallons (liters).

Backfill plugs will be measured in cubic yards (cubic meters) in place, except the quantity for which payment will be made shall not exceed the volume of the trench, as computed by using the maximum width of trench permitted by the Specifications and the actual depth of the trench, with a deduction for the volume of the pipe.

Engineered Barriers will be measured for payment in square yards (square meters).

669.11 Basis of Payment. The work of preparing, submitting and administering a Regulated Substances Pre-Construction Plan will be paid for at the contract lump sum price for REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN.

Regulated substances monitoring, including completion of form BDE 2732 for each day of work, will be paid for at the contract unit price per calendar day, or fraction thereof to the nearest 0.5 calendar day, for REGULATED SUBSTANCES MONITORING.

The installation of engineered barriers will be paid for at the contract unit price per square yard (square meter) for ENGINEERED BARRIER.

The work of UST removal, soil excavation, soil and content sampling, the management of excavated soil and UST content, and UST disposal, will be paid for at the contract unit price per each for UNDERGROUND STORAGE TANK REMOVAL.

The transportation and disposal of soil and other materials from an excavation determined to be contaminated will be paid for at the contract unit price per cubic yard (cubic meter) for

NON-SPECIAL WASTE DISPOSAL, SPECIAL WASTE DISPOSAL, or HAZARDOUS WASTE DISPOSAL.

The transportation and disposal of groundwater from an excavation determined to be contaminated will be paid for at the contract unit price per gallon (liter) for SPECIAL WASTE GROUNDWATER DISPOSAL or HAZARDOUS WASTE GROUNDWATER DISPOSAL. When groundwater is discharged to a sanitary or combined sewer by permit, the cost will be paid for according to Article 109.05.

Backfill plugs will be paid for at the contract unit price per cubic yard (cubic meter) for BACKFILL PLUGS.

Payment for temporary staging of soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) will be paid for according to Article 109.04. The Department will not be responsible for any additional costs incurred, if mismanagement of the staging area, storage containers, or their contents by the Contractor results in excess cost expenditure for disposal or other material management requirements.

Payment for accumulated stormwater removal and disposal will be according to Article 109.04. Payment will only be allowed if appropriate stormwater and erosion control methods were used.

Payment for decontamination, labor, material, and equipment for monitoring areas beyond the specified areas, with the Engineer's prior written approval, will be according to Article 109.04.

When the waste material for disposal requires sampling for landfill disposal acceptance, the samples shall be analyzed for TCLP VOCs, SVOCs, RCRA metals, pH, ignitability, and paint filter test. The analysis will be paid for at the contract unit price per each for SOIL DISPOSAL ANALYSIS using EPA Methods 1311 (extraction), 8260B for VOCs, 8270C for SVOCs, 6010B and 7470A for RCRA metals, 9045C for pH, 1030 for ignitability, and 9095A for paint filter.

The work of preparing, submitting and administering a Regulated Substances Final Construction Report will be paid for at the contract lump sum price REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT.”

80407

SILT FENCE, INLET FILTERS, GROUND STABILIZATION AND RIPRAP FILTER FABRIC (BDE)

Effective: November 1, 2019

Revised: July 1, 2021

Revise Article 280.02(m) and add Article 280.02(n) so the Standard Specifications read:

“(m) Above Grade Inlet Filter (Fitted)..... 1081.15(j)
 (n) Above Grade Inlet Filter (Non-Fitted)..... 1081.15(k)”

Revise the last sentence of the first paragraph in Article 280.04(c) of the Standard Specifications to read:

“The protection shall be constructed with hay or straw bales, silt filter fence, above grade inlet filters (fitted and non-fitted), or inlet filters.

Revise the first sentence of the second paragraph in Article 280.04(c) of the Standard Specifications to read:

“When above grade inlet filters (fitted and non-fitted) are specified, they shall be of sufficient size to completely span and enclose the inlet structure.”

Revise Article 1080.02 of the Standard Specifications to read:

“1080.02 Geotextile Fabric. The fabric for silt filter fence shall consist of woven fabric meeting the requirements of AASHTO M 288 for unsupported silt fence.

The fabric for ground stabilization shall consist of woven yarns or nonwoven filaments of polyolefins or polyesters. Woven fabrics shall be Class 2 and nonwoven fabrics shall be Class 1 according to AASHTO M 288.

The physical properties for silt fence and ground stabilization fabrics shall be according to the following.

PHYSICAL PROPERTIES			
	Silt Fence Woven ^{1/}	Ground Stabilization Woven ^{2/}	Ground Stabilization Nonwoven ^{2/}
Grab Strength, lb (N) ^{3/} ASTM D 4632	123 (550) MD 101 (450) XD	247 (1100) min. ^{4/}	202 (900) min. ^{4/}
Elongation/Grab Strain, % ASTM D 4632 ^{4/}	49 max.	49 max.	50 min.
Trapezoidal Tear Strength, lb (N) ASTM D 4533 ^{4/}	--	90 (400) min.	79 (350) min.
Puncture Strength, lb (N) ASTM D 6241 ^{4/}	--	494 (2200) min.	433 (1925) min.
Apparent Opening Size, Sieve No. (mm) ASTM D 4751 ^{5/}	30 (0.60) max.	40 (0.43) max.	40 (0.43) max.
Permittivity, sec ⁻¹ ASTM D 4491	0.05 min.		
Ultraviolet Stability, % retained strength after 500 hours of exposure ASTM D 4355	70 min.	50 min.	50 min.

- 1/ NTPEP results or manufacturer's certification to meet test requirements.
- 2/ NTPEP results to meet test requirements. Manufacturer shall have public release status and current reports on laboratory results in Test Data of NTPEP's DataMine.
- 3/ MD = Machine direction. XD = Cross-machine direction.
- 4/ Values represent the minimum average roll value (MARV) in the weaker principle direction, MD or XD.
- 5/ Values represent the maximum average roll value."

Revise Article 1080.03 of the Standard Specifications to read:

"1080.03 Filter Fabric. The filter fabric shall consist of woven yarns or nonwoven filaments of polyolefins or polyesters. Woven fabrics shall be Class 3 for riprap gradations RR 4 and RR 5, and Class 2 for RR 6 and RR 7 according to AASHTO M 288. Woven slit film geotextiles (i.e. geotextiles made from yarns of a flat, tape-like character) shall not be permitted. Nonwoven fabrics shall be Class 2 for riprap gradations RR 4 and RR 5, and Class 1 for RR 6 and RR 7 according to AASHTO M 288. After forming, the fabric shall be processed so that the yarns or filaments retain their relative positions with respect to each other. The fabric shall be new and undamaged.

The filter fabric shall be manufactured in widths of not less than 6 ft (2 m). Sheets of fabric may be sewn together with thread of a material meeting the chemical requirements given for the yarns or filaments to form fabric widths as required. The sheets of filter fabric shall be sewn together at the point of manufacture or another approved location.

The filter fabric shall be according to the following.

PHYSICAL PROPERTIES ^{1/}				
	Gradation Nos. RR 4 & RR 5		Gradation Nos. RR 6 & RR 7	
	Woven	Nonwoven	Woven	Nonwoven
Grab Strength, lb (N) ASTM D 4632 ^{2/}	180 (800) min.	157 (700) min.	247 (1100) min.	202 (900) min.
Elongation/Grab Strain, % ASTM D 4632 ^{2/}	49 max.	50 min.	49 max.	50 min.
Trapezoidal Tear Strength, lb (N) ASTM D 4533 ^{2/}	67 (300) min.	56 (250) min.	90 (400) min.	79 (350) min.
Puncture Strength, lb (N) ASTM D 6241 ^{2/}	370 (1650) min.	309 (1375) min.	494 (2200) min.	433 (1925) min.
Ultraviolet Stability, % retained strength after 500 hours of exposure - ASTM D 4355	50 min.			

1/ NTPEP results to meet test requirements. Manufacturer shall have public release status and current reports on laboratory results in Test Data of NTPEP's DataMine.

2/ Values represent the minimum average roll value (MARV) in the weaker principle direction [machine direction (MD) or cross-machine direction (XD)].

As determined by the Engineer, the filter fabric shall meet the requirements noted in the following after an onsite investigation of the soil to be protected.

Soil by Weight (Mass) Passing the No. 200 sieve (75 µm), %	Apparent Opening Size, Sieve No. (mm) - ASTM D 4751 ^{1/}	Permittivity, sec ⁻¹ ASTM D 4491
49 max.	60 (0.25) max.	0.2 min.
50 min.	70 (0.22) max.	0.1 min.

1/ Values represent the maximum average roll value."

Revise Article 1081.15(i)(1) of the Standard Specifications to read:

“(i) Urethane Foam/Geotextile. Urethane foam/geotextile shall be triangular shaped having a minimum height of 10 in. (250 mm) in the center with equal sides and a minimum 20 in. (500 mm) base. The triangular shaped inner material shall be a low density urethane foam. The outer geotextile fabric cover shall consist of woven yarns or nonwoven

filaments made of polyolefins or polyesters placed around the inner material and shall extend beyond both sides of the triangle a minimum of 18 in. (450 mm). Woven filter fabric shall be Class 3 and nonwoven filter fabric shall be Class 2 according to AASHTO M 288.

(1) The geotextile shall meet the following properties.

PHYSICAL PROPERTIES		
	Woven	Nonwoven
Grab Strength, lb (N) ASTM D 4632 ^{1/}	180 (800) min.	157 (700) min.
Elongation/Grab Strain, % ASTM D 4632 ^{1/}	49 max.	50 min.
Trapezoidal Tear Strength, lb (N) ASTM D 4533 ^{1/}	67 (300) min.	56 (250) min.
Puncture Strength, lb (N) ASTM D 6241 ^{1/}	370 (1650) min.	309 (1375) min.
Apparent Opening Size, Sieve No. (mm) ASTM D 4751 ^{2/}	30 (0.60) max.	
Permittivity, sec ⁻¹ ASTM D 4491	0.25 min.	
Ultraviolet Stability, % retained strength after 500 hours of exposure – ASTM D 4355	70 min.	

1/ Values represent the minimum average roll value (MARV) in the weaker principle direction [machine direction (MD) or cross-machine direction (XD)].

2/ Values represent the maximum average roll value.”

Add the following to Article 1081.15(i) of the Standard Specifications.

“(3) Certification. The manufacturer shall furnish a certificate with each shipment of urethane foam/geotextile assemblies stating the amount of product furnished and that the material complies with these requirements.”

Revise the title and first sentence of Article 1081.15(j) of the Standards Specifications to read:

“(j) Above Grade Inlet Filters (Fitted). Above grade inlet filters (fitted) shall consist of a rigid polyethylene frame covered with a fitted geotextile filter fabric.”

Revise Article 1081.15(j)(2) of the Standard Specifications to read:

(2) Fitted Geotextile Filter Fabric. The fitted geotextile filter fabric shall consist of woven yarns or nonwoven filaments made of polyolefins or polyesters. Woven filter fabric shall be Class 3 and nonwoven filter fabric shall be Class 2 according to AASHTO M 288. The filter shall be fabricated to provide a direct fit to the frame. The top of the filter shall integrate a coarse screen with a minimum apparent opening size

of 1/2 in. (13 mm) to allow large volumes of water to pass through in the event of heavy flows. The filter shall have integrated anti-buoyancy pockets capable of holding a minimum of 3.0 cu ft (0.08 cu m) of stabilization material. Each filter shall have a label with the following information sewn to or otherwise permanently adhered to the outside: manufacturer's name, product name, and lot, model, or serial number. The fitted geotextile filter fabric shall be according to the table in Article 1081.15(h)(3)a above."

Add Article 1081.15(k) to the Standard Specifications to read:

"(k) Above Grade Inlet Filters (Non-Fitted). Above grade inlet filters (non-fitted) shall consist of a geotextile fabric surrounding a metal frame. The frame shall consist of either a) a circular cage formed of welded wire mesh, or b) a collapsible aluminum frame, as described below.

(1) Frame Construction.

a) Welded Wire Mesh Frame. The frame shall consist of 6 in. x 6 in. (150 mm x 150 mm) welded wire mesh formed of #10 gauge (3.42 mm) steel conforming to ASTM A 185. The mesh shall be 30 in. (750 mm) tall and formed into a 42 in. (1.05 m) minimum diameter cylinder.

b) Collapsible Aluminum Frame. The collapsible aluminum frame shall consist of grade 6036 aluminum. The frame shall have anchor lugs that attach it to the inlet grate, which shall resist movement from water and debris. The collapsible joints of the frame shall have a locking device to secure the vertical members in place, which shall prevent the frame from collapsing while under load from water and debris.

(2) Geotextile Fabric. The geotextile fabric shall consist of woven yarns or nonwoven filaments made of polyolefins or polyesters. The woven filter fabric shall be a Class 3 and the nonwoven filter fabric shall be a Class 2 according to AASHTO M 288. The geotextile fabric shall be according to the table in Article 1081.15(h)(3)a above.

(3) Geotechnical Fabric Attachment to the Frame.

a) Welded Wire Mesh Frame. The woven or nonwoven geotextile fabric shall be wrapped 3 in. (75 mm) over the top member of a 6 in. x 6 in. (150 mm x 150 mm) welded wire mesh frame and secured with fastening rings constructed of wire conforming to ASTM A 641, A 809, A 370, and A 938 at 6 in. (150 mm) on center. The fastening rings shall penetrate both layers of geotextile and securely close around the steel mesh. The geotextile shall be secured to the sides of the welded wire mesh with fastening rings at a spacing of 1 per sq ft (11 per sq m) and securely close around a steel member.

- b) Collapsible Aluminum Frame. The woven or nonwoven fabric shall be secured to the aluminum frame along the top and bottom of the frame perimeter with strips of aluminum secured to the perimeter member, such that the anchoring system provides a uniformly distributed stress throughout the geotechnical fabric.
- (4) Certification. The manufacturer shall furnish a certificate with each shipment of above grade inlet filter assemblies stating the amount of product furnished and that the material complies with these requirements.”

80419

STEEL PLATE BEAM GUARDRAIL MANUFACTURING (BDE)

Effective: January 1, 2019

Revise the first three paragraphs of Article 1006.25 of the Standard Specifications to read:

“1006.25 Steel Plate Beam Guardrail. Steel plate beam guardrail, including bolts, nuts, and washers, shall be according to AASHTO M 180. The guardrail shall be Class A, with a Type II galvanized coating.

Steel plates for mounting guardrail on existing culverts shall be according to AASHTO M 270 Grade 36 (M 270M Grade 250) and zinc coated according to AASHTO M 111.

The Department will accept guardrail based on the “Brand Registration and Guarantee” requirements of AASHTO M 180 and the manufacturer shall be listed as compliant through the NTPEP Program. The Department will maintain a qualified product list.”

80408

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

TRAFFIC CONTROL DEVICES - CONES (BDE)

Effective: January 1, 2019

Revise Article 701.15(a) of the Standard Specifications to read:

“(a) Cones. Cones are used to channelize traffic. Cones used to channelize traffic at night shall be reflectorized; however, cones shall not be used in nighttime lane closure tapers or nighttime lane shifts.”

Revise Article 1106.02(b) of the Standard Specifications to read:

“(b) Cones. Cones shall be predominantly orange. Cones used at night that are 28 to 36 in. (700 to 900 mm) in height shall have two white circumferential stripes. If non-reflective spaces are left between the stripes, the spaces shall be no more than 2 in. (50mm) in width. Cones used at night that are taller than 36 in. (900 mm) shall have a minimum of two white and two fluorescent orange alternating, circumferential stripes with the top stripe being fluorescent orange. If non-reflective spaces are left between the stripes, the spaces shall be no more than 3 in. (75 mm) in width.

The minimum weights for the various cone heights shall be 4 lb for 18 in. (2 kg for 450 mm), 7 lb for 28 in. (3 kg for 700 mm), and 10 lb for 36 in. (5 kg for 900 mm) with a minimum of 60 percent of the total weight in the base. Cones taller than 36 in. shall be weighted per the manufacturer’s specifications such that they are not moved by wind or passing traffic.”

80409

TRAINING SPECIAL PROVISIONS (BDE)

Effective: October 15, 1975

Revised: September 2, 2021

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 3. In the event the Contractor subcontracts a portion of the contract work, it 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 ensure 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 it employs 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 it 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 or she has successfully completed a training course leading to journeyman status or in which he or she 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 Employment Training Administration 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 shall provide for the maintenance of records and furnish periodic reports documenting its performance under this Training Special Provision.

For contracts with an awarded contract value of \$500,000 or more, the Contractor is required to comply with the Illinois Works Apprenticeship Initiative (30 ILCS 559/20-20 to 20-25) and all applicable administrative rules to the extent permitted by Section 20-20(g). For federally funded projects, the number of trainees to be trained under this contract, as stated in the Training Special Provisions, will be the established goal for the Illinois Works Apprenticeship Initiative 30 ILCS 559/20-20(g). The Contractor shall make a good faith effort to meet this goal. For federally funded projects, the Illinois Works Apprenticeship Initiative will be implemented using the FHWA approved OJT procedures. The Contractor must comply with the recordkeeping and reporting obligations of the Illinois Works Apprenticeship Initiative for the life of the project, including the certification as to whether the trainee/apprentice labor hour goals were met.

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

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. The lights shall be in operation while the vehicle or equipment is engaged in construction operations.”

80439

WARM MIX ASPHALT (BDE)

Effective: January 1, 2012

Revised: April 1, 2016

Description. This work shall consist of designing, producing and constructing Warm Mix Asphalt (WMA) in lieu of Hot Mix Asphalt (HMA) at the Contractor's option. Work shall be according to Sections 406, 407, 408, 1030, and 1102 of the Standard Specifications, except as modified herein. In addition, any references to HMA in the Standard Specifications, or the special provisions shall be construed to include WMA.

WMA is an asphalt mixture which can be produced at temperatures lower than allowed for HMA utilizing approved WMA technologies. WMA technologies are defined as the use of additives or processes which allow a reduction in the temperatures at which HMA mixes are produced and placed. WMA is produced by the use of additives, a water foaming process, or combination of both. Additives include minerals, chemicals or organics incorporated into the asphalt binder stream in a dedicated delivery system. The process of foaming injects water into the asphalt binder stream, just prior to incorporation of the asphalt binder with the aggregate.

Approved WMA technologies may also be used in HMA provided all the requirements specified herein, with the exception of temperature, are met. However, asphalt mixtures produced at temperatures in excess of 275 °F (135 °C) will not be considered WMA when determining the grade reduction of the virgin asphalt binder grade.

Equipment.

Revise the first paragraph of Article 1102.01 of the Standard Specifications to read:

"1102.01 Hot-Mix Asphalt Plant. The hot-mix asphalt (HMA) plant shall be the batch-type, continuous-type, or dryer drum plant. The plants shall be evaluated for prequalification rating and approval to produce HMA according to the current Bureau of Materials and Physical Research Policy Memorandum, "Approval of Hot-Mix Asphalt Plants and Equipment". Once approved, the Contractor shall notify the Bureau of Materials and Physical Research to obtain approval of all plant modifications. The plants shall not be used to produce mixtures concurrently for more than one project or for private work unless permission is granted in writing by the Engineer. The plant units shall be so designed, coordinated and operated that they will function properly and produce HMA having uniform temperatures and compositions within the tolerances specified. The plant units shall meet the following requirements."

Add the following to Article 1102.01(a) of the Standard Specifications.

"(11) Equipment for Warm Mix Technologies.

- a. Foaming. Metering equipment for foamed asphalt shall have an accuracy of ± 2 percent of the actual water metered. The foaming control system shall be electronically interfaced with the asphalt binder meter.

- b. Additives. Additives shall be introduced into the plant according to the supplier's recommendations and shall be approved by the Engineer. The system for introducing the WMA additive shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes."

Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

"(e) Warm Mix Technologies.

- (1) Foaming. WMA mix design verification will not be required when foaming technology is used alone (without WMA additives). However, the foaming technology shall only be used on HMA designs previously approved by the Department.
- (2) Additives. WMA mix designs utilizing additives shall be submitted to the Engineer for mix design verification."

Construction Requirements.

Revise the second paragraph of Article 406.06(b)(1) of the Standard Specifications to read:

"The HMA shall be delivered at a temperature of 250 to 350 °F (120 to 175 °C).
WMA shall be delivered at a minimum temperature of 215 °F (102 °C)."

Basis of Payment.

This work will be paid at the contract unit price bid for the HMA pay items involved. Anti-strip will not be paid for separately, but shall be considered as included in the cost of the work.

80288

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

WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within 140 working days.

80071

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated 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. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

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 (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).

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.

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). 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 bid proposal or request for proposal 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).

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.

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. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 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 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, 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 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, 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 230, 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 (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 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 35 and 29 CFR 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.

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, 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 who 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.

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, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure 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. 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, 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, 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 there under. 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, 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 and 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. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor 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 contracting agency deems appropriate.

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 \$10,000 or more.

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, 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). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

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

a. All laborers and mechanics employed or working upon the site of the work, 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 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.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. 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 shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). 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 classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall 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. (1) The contracting officer shall 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 shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore 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 utilized 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) 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 shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. 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.

(3) 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 shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour 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.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall 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.

c. 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 shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. 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, 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.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, 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.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, 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 section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) 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 section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall 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. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed 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 Regulations, 29 CFR part 3;

(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 of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, 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 may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed 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 Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall 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 the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall 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, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. 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. 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 journeymen 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.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 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.

9. Disputes concerning labor standards. 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 he or she) 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 section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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 watchmen 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.

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. 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 watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 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.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or 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, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

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" 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:

(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.

2. 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. 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.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

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 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.

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 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).

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 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 1, 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

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

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.

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.

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.

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.

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 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee 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 grantee or subgrantee 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.

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.

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. 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 Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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. 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) 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;

(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; 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.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. 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)

a. By signing and submitting this proposal, the prospective lower tier 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.

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 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 grantee or subgrantee 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 grantee or subgrantee 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.

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.

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 Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall 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 20).

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.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

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.

Contract Provision - Cargo Preference Requirements

In accordance with Title 46 CFR § 381.7 (b), the contractor 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.

(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 Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.”

Provisions (1) and (2) apply to materials or equipment that are acquired solely for the project. The two provisions do not apply to goods or materials that come into inventories independent of the project, such as shipments of Portland cement, asphalt cement, or aggregates, when industry suppliers and contractors use these materials to replenish existing inventories.

**MINIMUM WAGES FOR FEDERAL AND FEDERALLY
ASSISTED CONSTRUCTION CONTRACTS**

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision shall be the minimum paid by contractors and subcontractors to laborers and mechanics.