# 203

### Letting April 27, 2018

## Notice to Bidders, Specifications and Proposal



Springfield, Illinois 62764

Contract No. 85657 ROCK ISLAND County Section 17-00268-00-RS (Moline) Routes FAU 5768 & FAU 5833 (12th Ave. & 16th St.) Project FWYC-305 () District 2 Construction Funds

Prepared by

Checked by

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# Illinois Department of Transportation

#### **NOTICE TO BIDDERS**

- 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 10:00 a.m. April 27, 2018 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. 85657
ROCK ISLAND County
Section 17-00268-00-RS (Moline)
Project FWYC-305 ()
Routes FAU 5768 & FAU 5833 (12th Ave. & 16th St.)
District 2 Construction Funds

Milling and resurfacing with ADA ramp improvements on 12th Avenue from 34th Street to 53rd Street, and on 16th Street from 52nd Avenue to John Deere Road in the City of Moline.

- 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 readvertise the proposed improvement, and to waive technicalities.

By Order of the Illinois Department of Transportation

Randall S. Blankenhorn, Secretary

#### CONTRACT 85657

## INDEX FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

#### Adopted January 1, 2018

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 1-1-18)

#### **SUPPLEMENTAL SPECIFICATIONS**

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#### CHECK SHEET FOR RECURRING SPECIAL PROVISIONS

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

#### RECURRING SPECIAL PROVISIONS

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35		Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	164

### CHECK SHEET FOR 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:

#### LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

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#### **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</u> Name	<u>Pg.</u>		Special Provision Title	<b>Effective</b>	Revised
80099			Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2014
80382	37	X	Adjusting Frames and Grates	April 1, 2017	.,
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
80241			Bridge Demolition Debris	July 1, 2009	0 /
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
80366	39	Х	Butt Joints	July 1, 2016	•
80386			Calcium Aluminate Cement for Class PP-5 Concrete Patching	Nov. 1, 2017	
80396	40	Χ	Class A and B Patching	Jan. 1, 2018	
80384	41	Χ	Compensable Delay Costs	June 2, 2017	
80198			Completion Date (via calendar days)	April 1, 2008	
80199			Completion Date (via calendar days) Plus Working Days	April 1, 2008	
80293			Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	July 1, 2016
80311			Concrete End Sections for Pipe Culverts	Jan. 1, 2013	April 1, 2016
80277			Concrete Mix Design – Department Provided	Jan. 1, 2012	April 1, 2016
80261			Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
80387			Contrast Preformed Plastic Pavement Marking	Nov. 1, 2017	
* 80029	45	Х	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	April 2, 2018
80378	56	Χ	Dowel Bar Inserter	Jan. 1, 2017	Jan. 1, 2018
80388	63	Χ	Equipment Parking and Storage	Nov. 1, 2017	
80229			Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
80304			Grooving for Recessed Pavement Markings	Nov. 1, 2012	Nov. 1, 2017
80246	64	Χ	Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	April 1, 2016
80347			Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits - Jobsite Sampling	Nov. 1, 2014	Jan. 1, 2018
80383			Hot-Mix Asphalt – Quality Control for Performance	April 1, 2017	Nov. 1, 2017
80376	65	Χ	Hot-Mix Asphalt – Tack Coat	Nov. 1, 2016	
80392	66	Χ	Lights on Barricades	Jan. 1, 2018	
80336			Longitudinal Joint and Crack Patching	April 1, 2014	April 1, 2016
* 80393	68	Χ	Manholes, Valve Vaults, and Flat Slab Tops	Jan. 1, 2018	March 2, 2018
80045			Material Transfer Device	June 15, 1999	Aug. 1, 2014
* 80394			Metal Flared End Section for Pipe Culverts	Jan. 1, 2018	April 1, 2018
80165			Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
80349			Pavement Marking Blackout Tape	Nov. 1, 2014	April 1, 2016
80371	70	Х	Pavement Marking Removal	July 1, 2016	
80390	71	Х	Payments to Subcontractors	Nov. 2, 2017	
80377	72	Х	Portable Changeable Message Signs	Nov. 1, 2016	April 1, 2017
80389	73	Х	Portland Cement Concrete	Nov. 1, 2017	
80359			Portland Cement Concrete Bridge Deck Curing	April 1, 2015	Nov. 1, 2017
80385	74	Х	Portland Cement Concrete Sidewalk	Aug. 1, 2017	
80300		<u> </u>	Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	April 1, 2016
80328	75	Х	Progress Payments	Nov. 2, 2013	
3426I			Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157			Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	

<u>File</u> Name	<u>Pg.</u>		Special Provision Title	<b>Effective</b>	Revised
80306	76	Х	Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	Jan. 1, 2018
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
* 80397	86	Х	Subcontractor and DBE Payment Reporting	April 2, 2018	
80391	87	Х	Subcontractor Mobilization Payments	Nov. 2, 2017	
80317			Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	April 1, 2016
80298			Temporary Pavement Marking (NOTE: This special provision was previously named "Pavement Marking Tape Type IV".)	April 1, 2012	April 1, 2017
20338			Training Special Provision	Oct. 15, 1975	
80318			Traversable Pipe Grate for Concrete End Sections (Note: This special provision was previously named " <i>Traversable Pipe Grate</i> ".)	Jan. 1, 2013	Jan. 1, 2018
80288	88	Х	Warm Mix Asphalt	Jan. 1, 2012	April 1, 2016
80302	90	Х	Weekly DBE Trucking Reports	June 2, 2012	April 2, 2015
80071			Working Days	Jan. 1, 2002	

The following special provisions are in the 2018 Supplemental Specifications and Recurring Special Provisions.

<u>File</u>	<b>Special Provision Title</b>	<b>New Location</b>	<b>Effective</b>	Revised	
<u>Name</u>					
80368	Light Tower	Article 1069.08	July 1, 2016		
80369	Mast Arm Assembly and Pole	Article 1077.03(a)(1)	July 1, 2016		
80338	Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	Recurring CS #35	April 1, 2014	April 1, 2016	
80379	Steel Plate Beam Guardrail	Articles 630.02, 630.05, 630.06, and 630.08	Jan. 1, 2017		
80381	Traffic Barrier Terminal, Type 1 Special	Article 631.04	Jan. 1, 2017		
80380	Tubular Markers	Articles 701.03, 701.15, 701.18, and 1106.02	Jan. 1, 2017		



**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 of Materials" in effect on the date of invitation of bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included here in which apply to and govern the construction of Section 17-00268-00-RS, City of Moline \_\_\_\_\_, and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

Where the term "Department" appears in the Specification, the "City of Moline" shall be substituted therefore, and where any term for an employee of the Department is used, the designated City of Moline employee shall be substituted therefore. Where the term "Engineer" is used, it shall mean the City of Moline Engineer.

Herein after the terms "Owner", "City" or "Engineer" shall mean the City of Moline or its designated representative and the term "Contractor" shall mean the entity who proposes to perform the work herein described or its designated subcontractors.

#### **LOCATION OF PROJECT**

The project is located along 12<sup>th</sup> Avenue, from 34<sup>th</sup> Street to 53<sup>rd</sup> Street; and 16<sup>th</sup> Street, from 52<sup>nd</sup> Avenue to John Deere Road.

#### **DESCRIPTION OF WORK**

This work shall consist of variable depth milling, HMA overlay on the existing concrete pavement along 12<sup>th</sup> Avenue, 16<sup>th</sup> Street and Class B type patches on 12<sup>th</sup> Avenue. Inlets and other utility manholes will be adjusted, ADA ramps and sidewalk installed and pavement striping applied.

#### **COMPLETION DATE PLUS WORKING DAYS**

The Contractor shall perform his work in such a manner that the PROJECT is complete on or prior to Friday October 26<sup>th</sup>, 2018. The PROJECT shall have everything finished except the punch list items.

The Contractor will be allowed 10 working days, after the Friday October 26<sup>th</sup>, 2018 completion date, to complete punch list items.

The Contractor will have all work related to the Woodrow Wilson Middle School entrance (pavement, curb, sidewalk, landscaping and all other appurtenances) completed on or prior to August 10th, 2018.

#### CONTROL OF WORK

#### 105.07 Cooperation with Utilities

Add the following to this Article:

Call Julie 1-800-892-0123 before you dig.

The following utility companies may have utilities located on this project:

Midamerican Energy Electric (563) 333-8706 Gas (309) 793-3704 AT&T (309) 757-4707

Mediacom Centurylink (309) 743-4750 (563) 355-6402

Geneseo Communications Windstream (309) 944-8025 (309) 282-3110

City of Moline Sanitary Sewer (309) 524-2341 City of Moline Storm Sewers (309) 524-2363 City of Moline Water Mains (309) 524-2323

The above represents the best information of the City and is included for the convenience of the bidder. The applicable provisions of Section 105 and 107 of the Standard Specifications shall apply.

It shall be the Contractor's responsibility to notify the private utility companies of his/her construction plans sufficiently in advance to allow them to make field locations, adjustments and relocations. Any adjustments and relocations necessary will be performed by the affected utility company at no expense to the Contractor. Any adjustments to city-owned facilities are the Contractor's responsibility and will be included in the applicable contract.

If any utility adjustment or removal has not been completed when required by the Contractor's operations, the Contractor shall notify the Engineer in writing. No additional compensation will be allowed for possible delays encountered due to utility conflicts; however, a request for an extension of time will be considered to the extent the contractor's operations were affected.

The Contractor shall excavate and verify the exact location and elevation of all known utilities that could affect the installation of any proposed items. The cost shall be incidental to the associated items of construction.

#### **LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC**

#### 107.14 Maintenance of Traffic

Add this paragraph to this Article:

The presence of temporary traffic control drawings or standards in the project plans, whether a pay item or not, does not relieve the Contractor of his/her obligation to provide protection to the public. This article shall be determined to stipulate that the contractor shall provide, to the satisfaction of the Engineer, all reasonable protection deemed necessary beyond that shown in the plans, Standards or Special Provisions. The expense of this work to the Contractor shall be included in the traffic control items or considered incidental to the contract.

### 107.23 Protection of Streams, Lakes, Reservoirs, Natural Areas, Wetlands, Prairie Areas, Savannahs, and Endangered and Threatened Species

Add the following paragraph to this Article:

The Contractor shall be responsible for ensuring compliance with all National Pollutant Discharge Elimination System (NDPES) permit requirements and City of Moline Storm Water Ordinance Regulations. This shall include the timely and accurate completion of all Erosion Control Inspection Reports. Failure to comply with the above regulations shall be a violation of the Moline Code of Ordinances and may result in fines of up to \$750 per day per violation.

#### 107.25 Protection and Restoration of Traffic Signs

Revise the third paragraph of this Article to read:

Any signs or posts the Engineer determines have been damaged during the removal, storage or re-erection shall be replaced by the Contractor at the Contractor's expense.

#### 107.30 Contractor's Responsibility for Work

Add this sentence to 1<sup>st</sup> paragraph of this Article:

Permission to work during freezing, stormy or inclement weather shall in no way be construed as a release of the Contractor's responsibility regarding the quality of work executed at such time.

#### 108.04 Working Days

Revise the first paragraph to read:

When the contract provides a specific number of working days or a completion date with a guaranteed number of working days, the charging of working days shall start when the Contractor begins actual construction work, and in no case later than 10 days after the execution and approval of the contract, unless otherwise provided in the contract or directed by the Engineer.

Revise the first sentence of the second paragraph to read:

"A working day shall be defined as any calendar day after the Contractor begins actual construction work, except Saturdays, Sundays or holidays observed in Illinois by the Contractor's entire workforce."

Revise the third paragraph to read:

"A full working day will be charged for any day described in the foregoing on which conditions are such that the Contractor could be expected to do a full day's work. A full working day will be charged on days when the Contractor could be working, but elects not to work, or elects to work elsewhere."

#### **SCHEDULING OF WORK**

Contractor acknowledges that alterations to the construction sequencing and schedule may be required for coordination with any third-party utilities. Contractor shall be responsible for any necessary coordination with utility companies. Any delay to the contract caused directly or indirectly by third party utilities shall not be cause for adjustment to the contract sum.

Contractor shall be responsible for providing updated project schedules in the provided format to be submitted each Tuesday by the end of business hours. Schedules shall be completed electronically using the format provided. Schedules shall be completed to the quality and satisfaction of project ownership.

#### **CONSTRUCTION INSPECTION**

Any work performed without the presence of an Owner's designated representative to inspect said construction shall not be accepted for payment as directed by the Owner. Contractor shall notify Ownership a minimum of 24 hours in advance of the start of construction or the continuation of construction following a pause in work.

#### 109.04 Payment for Extra Work.

Revise subparagraph (b) (8) of this Article:

All statements of the cost of force account work shall be furnished to the Engineer not later than 14 days after the date of final acceptance. If the statement is not received within the specified time frame, all demands for payment for the extra work are waived and the City of Moline 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.

Add the following paragraph to subparagraph (b) (8) of this Article:

"EXTRA WORK DAILY REPORTS" shall be submitted no later than the end of the next working day. If the reports are not received within the specified time allowed, all demands for payment for the extra work are waived and the City of Moline is released from all demands for payment. It is the responsibility of the Contractor to ensure that all reports are received within the specified time regardless of the manner or method of delivery.

#### 109.07 Partial Payments.

Add a subsection (c) to read:

"There shall be deducted from the amount so determined of the completed work a sum of 10 percent to be retained until after the completion of the entire work to the satisfaction of the Engineer."

#### 109.08 Acceptance and Final Payment.

Revise the 2<sup>nd</sup> paragraph of this Article to read:

A one year performance, labor, material and maintenance bond, in the full amount of the contract, shall be furnished by the successful bidder upon execution of the contract. The one year warranty period shall begin on the date of final acceptance. Final acceptance shall be defined as the date the Moline City Council approves the final pay estimate. Final acceptance shall not constitute acceptance of any unauthorized or defective work or material. The City of Moline shall not be barred from requiring the removal, replacement, repair or disposal of any unauthorized or defective work or material or from recovering damages from any such work or material.

Add the following paragraphs at the end of this Article:

Final payment to the Contractor will not be made until the Contractor has provided, to the City of Moline, all documentation required by the State and or the Federal Government. This includes but is not limited to certified payrolls, material certification, material tickets and copies of any and all items reported directly to the State.

#### **EXISTING UTILITIES AND DRAINAGE STRUCTURES LOCATIONS**

The plans show existing utilities and drainage structures lying within the limits of the work under this contract such as gas and water mains, sewers, inlets, buffalo boxes, cablevision facilities and power line and poles. The City does not guarantee the completeness or accuracy of the information shown on the plans regarding these utilities. The contractor shall make his own investigation to verify or determine the existence, nature and location of all utilities on the site that may interfere with construction before starting his operations. The Contractor shall report to the Engineer any omissions or differences in location from that shown on the plans. Care should be taken while working near these utilities to prevent their damage.

#### **CONSTRUCTION SEAMS**

All paving seams (joints) shall be raked out and rolled according to Section 406 of the Standard Specifications and as directed by the Engineer. No overlapping seams will be allowed.

#### MAINTENANCE OF ROADWAYS

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

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

#### **MAINTENANCE OF DRIVEWAYS**

The Contractor shall provide vehicular access to residential or commercial/industrial driveways that shall be maintained except when necessary construction precludes such access for reasonable periods of time. If backfill has been completed to the extent that safe access may be provided, and the street is open to local traffic, the Contractor shall immediately clear the street and driveways and provide and maintain access. Any aggregate used to maintain access to driveways shall be considered included in the various bid items.

Aggregate Base Course, Type B, shall be used for temporary access to entrances and alleys while the proposed pavement is under construction and shall be used as directed by the Engineer. This aggregate shall not be reused with the Aggregate Base Course but is included in the contract unit bid price per square yard for **PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH**.

#### **EROSION CONTROL AND NPDES COMPLIANCE**

The Contractor shall provide all materials, labor, equipment and all other incidentals to provide proper erosion control as indicated in this General Provision to this Contract.

This work shall conform to the applicable portions of section 280 of the Standard Specifications and the attached details and all requirements set forth in the General NPDES Permit No. ILR10 and the requirements of the City of Moline.

The management practices, controls, and other provisions must be at least as protective as the requirements contained in the Illinois Urban Manual. Any deviation of installation practices from the standard details shall be submitted to the Engineer for approval prior to placement.

The Contractor shall name a person at the preconstruction meeting who shall be on the jobsite during construction and who shall be responsible for ensuring the erosion control work is completed in a timely manner. The Contractor shall also perform inspections and maintain records per the ILR10 permit. The Contractor will be responsible for erosion and sediment control and any discharge from the work area as designated on the construction plans. Failure to adhere to the NPDES permit will result in a fine according to Section 105.03(a) of the Standard Specifications.

Any disturbed areas shall be kept to a practical minimum and shall be temporarily seeded, mulched, sodded or paved within 7 calendar days; except where construction activity will resume on a portion of the site within 14 days from when activities ceased, (e.g. the total time period that construction activity is temporarily ceased is less than 14 days) then stabilization measures do not have to be initiated on that portion of the site by the 14<sup>th</sup> day after construction activity temporarily ceased. Best management practices will be in place downslope of the disturbed areas until final stabilization has occurred.

Any excess construction materials on site must be properly disposed of. All excess concrete material must be disposed of in an approved concrete washout container. NO CONCRETE IS TO BE WASHED INTO THE PARKWAY OR ONTO THE SURFACE OF THE GROUND. The type, size, location and design of the concrete washout structures may vary but each must be approved prior to use. Concrete washout structures used on this project shall be included in the bid price per each for **CONCRETE TRUCK WASHOUT** pay item.

When excess topsoil and excavated material is removed from the site, the Contractor shall take special precautions to avoid tracking or spilling dirt onto the adjacent roadways. If excavated material is spilled outside of the job site, the Contractor shall remove the debris and clean the pavements to the satisfaction of the Engineer, and properly dispose of the material.

This work shall be included in the bid price per foot for **PERIMETER EROSION BARRIER**, and per each for **INLET AND PIPE PROTECTION** pay items.

#### **SAW CUTTING**

This work shall consist of sawing existing pavements to such a depth that when the pavement is removed, a clean neat edge will result with no spalling of the remaining pavement. Saw cutting shall be performed at all locations where pavement and curb and gutter are removed and will be replaced. This work item shall be considered included in the unit price of the item being removed. Additional saw cutting may be required as directed by the Engineer at no additional cost to the owner.

Saw cutting for Class B Patches will not be paid for separately, but shall be included in the various pay items for patching and per The City of Moline Standard Details.

#### TRAFFIC CONTROL AND PROTECTION, (SPECIAL)

Effective: January 14, 1999 Revised: January 13, 2017

Traffic Control shall be according to the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the National Manual on Uniform Traffic Control Devices for Streets and Highways, Illinois Supplement to the National Manual on Uniform Traffic Control Devices, these special provisions, and any special details and Highway Standards contained herein and in the plans.

Special attention is called to Articles 107.09 and 107.14 of the Standard Specifications for Road and Bridge Construction and the following Highway Standards relating to traffic control.

#### Standards:

701001	701006	701101	701106	701201	701206	701301	701306	701311	701421
	701422	701426	701427	701501	701601	701606	701611	701701	701801
	701901								
Details:									
District Standard		34.1	Work Zone	Sign Details	3				
District Standard		38.1	Traffic Con	trol for Trans	sition Area				
District Standard 39.1		Traffic Control Typical Weave							
District Standar	<sup>-</sup> d	94.2	Traffic Con	trol and Prot	ection at Tu	rn Bays (To	Remain Ope	en to Traffic)	

#### General:

The Contractor will be required to furnish all traffic control devices necessary for the convenience and protection of vehicular and pedestrian traffic. Whenever the operation of the Contractor endangers or interferes with vehicular traffic or pedestrians, as determined by the Engineer, the Contractor shall furnish any additional traffic control devices necessary to direct and protect his workmen at no extra cost to satisfy the requirements of the Engineer. The Contractor will be responsible for the proper location, installation and arrangement of all traffic control devices furnished by him. Whenever operations indicate that relocation of a proposed or existing traffic control device is advisable, as determined by the Engineer, the Contractor shall remove, relocate and reinstall the device in question.

The contractor must maintain at least one pedestrian crossing across both roadways at all times. The minimum lane width during construction shall be 10' on all roadways where lane widths need to be reduced for traffic control. Existing lane widths less than 11' are allowed to remain. The Engineer shall be notified of this situation where it exists.

#### **701.04 General**

Add the following paragraphs to this Article:

On the date that the Contractor begins work, he shall assume responsibility for the normal maintenance of all existing pavements, drives and temporary surface within the limits of the improvement. Normal maintenance shall include all repair work deemed necessary by the Engineer. This responsibility shall end upon the completion and acceptance of all the pay items in this contract.

No work shall begin until all traffic control devices are in place and have been approved by the Engineer. Approval will be written.

Notify the City of Moline, Dept. of Engineering at least 24 hours prior to the placement of any concrete and the temporary closing of any traffic lanes.

The Contractor is to notify all property owners prior to removal and replacement of any driveway pavements in front of their properties.

The Contractor is to notify the City of Moline Street/Sanitation Department to arrange for local garbage pickup, (309) 524-2400. The Contractor will be responsible for proper location, relocation, installation, arrangement, maintenance and removal of all traffic control devices furnished and installed by him. Whenever operations indicate that a relocation of a proposed or existing traffic control device is advisable, as determined by the Engineer, the Contractor shall remove, relocate and reinstall the device in question.

The Contractor is to notify and coordinate with the Moline-Coal Valley School District No. 40 and specifically Wilson Middle School prior to construction and maintain communications for construction activities or changes in traffic control setup that will directly impact Wilson Middle School transportation activities.

Add the following sentences to the 5<sup>th</sup> paragraph in this Article:

To ensure a prompt response to incidents involving the integrity of the work zone traffic control devices, the Contractor shall provide 3 (three) telephone numbers at the preconstruction meeting where a responsible individual can be contacted on a 24-hour-a-day basis. Said individual must be able to respond within 15 minutes of any call by the Engineer.

Special attention is called to Article 701.07 of the Standard Specifications for Road and Bridge Construction. The Contractor shall not remove more than the specified depth of milling without prior written authorization from the Engineer.

#### 701.08 Contractor's Operations and Equipment

Replace paragraph (2) with the following:

The Contractor will provide 24-hour surveillance of all barricades, warning signs and lights during the duration of this contract. In the event of severe weather conditions, the Contractor shall be required to furnish any additional personnel required to maintain all traffic control devices as may be required by the Engineer. Surveillance shall mean checking control devices periodically, but not less than once every 12 hours. The Engineer shall be the sole judge as to whether the deficiency is an immediate safety hazard. The Contractor shall dispatch sufficient resources within one hour of notification to make needed corrections of deficiencies that constitute an immediate safety hazard. Other deficiencies shall be corrected within 12 hours. If the Contractor fails to restore the required traffic control and protection within the time limits specified above, the Engineer will impose a daily monetary deduction for each 24-hour period (or portion thereof) the deficiency exists. This time period will begin with the time of notification to the Contractor and end with the Engineer's acceptance of the corrections. The daily deduction will be \$500.00 per day. In addition, if the Contractor fails to respond, the Engineer may correct the deficiencies and the cost thereof will be deducted from monies due or which may become due the Contractor. This correcting action will in no way relieve the Contractor of his/her contractual requirements or responsibilities.

#### 701.15 Traffic Control Devices

Replace the first paragraph in (j) with the following:

Changeable message boards shall be erected on the approaches to the work zone two weeks prior to the beginning of construction to provide notice of the pending work and schedule.

Changeable message boards shall be used for the various stages as noted in the plans.

Messages providing advanced notice of changes in lane configuration shall be in place three days prior to the changes in lane configuration.

#### Signs:

No bracing shall be allowed on post-mounted signs.

Post-mounted signs shall be installed using standard 720011, 728001 and 729001, on 4"x4" wood posts, or on any other "break away" connection if accepted by the FHWA and corresponding letter is provided to the resident.

All signs are required on both sides of the road when the median is greater than 10 feet and on one way roadways.

The "WORKERS" (W21-1a (O)-48) signs shall be replaced with "Right or Left Lane Closed Ahead" (W4-2R or L (O)-48) signs on multilane roadways.

"BUMP" (W8-1(O)48) signs shall be installed as directed by the Engineer.

"UNEVEN LANES" W8-11(O)48 signs shall be installed at 1 mile intervals or as directed by the Engineer.

When covering existing Department signs, no tape shall be used on the reflective portion of the sign. Contact the District sign shop for covering techniques.

All regulatory signs shall be maintained at a 5-foot minimum bottom (rural), 7-foot minimum (urban).

Plate altering signs shall have the same sheeting as the base sign.

No more than one plate shall be used to alter a sign.

Any post stubs without a sign in place and visible shall have a reflector placed on each post.

#### Devices:

Cones or reflectorized cones shall not be used during hours of darkness.

A minimum of 3 drums spaced at 4 feet shall be placed at each return when the side road is open.

On all standards, and the devices listed in Section 701 of the Standard Specifications, the device spacing shall be revised to the following dimensions:

Where the spacing shown on the standard is 25 feet, the devices shall be placed at 20 feet.

Where the spacing shown on the standard is 50 feet, the devices shall be placed at 40 feet.

Where the spacing shown on the standard is 100 feet, the devices shall be placed at 80 feet.

Direction Indicator Barricades shall exclusively be used in lane closure tapers. They shall be used only when traffic is being merged with an adjacent through lane. The back of the direction indicator barricade shall resemble a Type II barricade when within 12 feet of opposing traffic. The taper shall not be broken for a turn lane, intersection or large commercial entrance.

Vertical barricades shall not be used in weaves.

#### Lights:

Steady burn mono-directional lights are required on devices delineating a widening trench.

#### Flaggers:

Flagger at Side Roads and Commercial Entrances:

Effective: August 1, 2011 Revised: December 29, 2015

Flaggers shall comply with all requirements and signaling methods contained in the Department's "Traffic Control Field Manual" current at the time of letting. The flagger equipment listed for flaggers employed by the Illinois Department of Transportation shall apply to all flaggers.

All workers and flaggers shall wear ANSI Class E pants and an ANSI Class 2 vest that in combination meet the requirements of ANSI/ISEA 107-2004 for Conspicuity Class 3 garments during hours of darkness.

In addition to the flaggers shown on applicable standards, on major sideroads, flaggers shall be required on all legs of the intersection. Major sideroads for this project shall be on 12th Avenue (34th Street, 41st Street, 48th Street).

In addition to the flaggers shown on applicable standards, a flagger shall be required on high volume commercial entrances listed below. High volume commercial entrances for this project shall be 44<sup>th</sup> Street, South Park Mall and the commercial entrances to South Park Mall.

When the mainline flagger is within 200 feet of an intersection, the sideroad flagger shall be required.

When the road is closed to through traffic and it is necessary to provide access for local traffic, all flaggers as shown on the applicable standards will be required. No reduction in the number of flaggers shall be allowed.

Revise Article 701.20(i) of the Standard Specifications to read:

"Signs, barricades, other traffic control devices, or flaggers required by the Engineer, over and above those shown in the contract documents, will be paid for according to Article 109.04."

All flaggers, signs and devices to complete this work shall be included in the cost per lump sum for **TRAFFIC CONTROL AND PROTECTION, (SPECIAL)**.

#### Pavement Marking:

All temporary pavement markings that will be operational during the winter months (December through March) shall be paint.

Short term pavement markings on a milled surface shall be paint.

Temporary pavement markings shall not be included in the cost of the standard rather it shall be paid for separately at the contract unit prices of specified temporary pavement marking items.

#### Highway Standards Application:

Parking of personal vehicles within the right-of-way will be strictly prohibited. Parking of construction equipment within the right-of-way will be permitted only at locations approved by the Engineer.

<u>Traffic Control and Protection Standard 701701:</u> This work shall be done according to Section 701 of the Standard Specifications and the Typical Application of the Traffic Control devices for Highway Construction, Standard 701701, and as specified herein.

The "left" leg of the intersection shown on this standard also applies when the right turn lane is closed. When the right turn lane is closed, "RIGHT TURN LANE CLOSED AHEAD" shall be substituted for the "LEFT TURN LANE CLOSED AHEAD" and the set up would be a mirror image to what is shown.

This work shall be included in the contract unit price per Lump Sum for **TRAFFIC CONTROL AND PROTECTION**, **(SPECIAL)**.

#### Maintenance of Existing Traffic Signal Installation:

The City of Moline will maintain their signals during construction. The existing traffic signal system shall remain in operation during the modernization work. The existing signal heads will be relocated to their new position after the change in the lane configuration. The Contractor shall set up the Changeable Message Signs in advance of the intersection alerting the motorists to the change in lane configurations.

Revise Section 850 of the Standard Specifications to read:

This item shall include maintenance of all traffic signal equipment at the intersections, including emergency vehicle preemption equipment, master controllers, telephone service installations, communication cables and conduits to adjacent intersections.

The Contractor shall provide the Engineer with a 24-hour telephone number for the maintenance of the traffic signal installation and for emergency calls by the Engineer.

Locating underground facilities: Revise Section 803 of the Standard Specifications to read:

Once maintenance of traffic signal and/or lighting facilities are transferred from the owner to the Contractor as described herein under this contract, the Contractor shall be responsible for locating and maintaining locates of the facilities both existing and proposed until final acceptance by the owner. This includes JULIE locate requests by other for work within the facility area.

Contractor request for equipment locates will be granted only once prior to the start of the contract. Additional requests shall be at the expense of the Contractor. The location of underground traffic facilities does not relieve the Contractor of their responsibility to repair any item(s) damaged during the construction, at his/her own expense.

Locate requests should be directed to the City's Traffic Signal Maintenance Contractor or to the City of Moline Traffic Engineering Department.

The exact location of all utilities shall be field verified by the Contractor before the installation of any components of the traffic signal system. For locations of utilities call J.U.L.I.E. at 1-800-892-0123. For locations of some utilities, other Agencies or Municipalities may need to be contacted.

Basis of Payment: This work shall be included in the contract unit price per lump sum for **TRAFFIC CONTROL AND PROTECTION**, (SPECIAL),

#### Maintenance of Traffic:

<u>Description:</u> The Contractor shall be responsible for any and all traffic control necessary to complete the project construction per the contract plans and documents, including any necessary sub-stages to further the progress of construction in conjunction with pending utility relocations.

Access to businesses shall be coordinated with the owner prior to removing access to properties for both deliveries and commercial operations. 48-hour notice shall be provided prior to removing access. One entrance shall remain open at all times either by staging construction activities or providing accessible temporary facilities. When access to a business is removed, restoration shall commence the next calendar day and shall be completed in 72 hours.

All work necessary to maintain traffic, signing, access, provide detours and any necessary sub-stages to further the progress of construction to complete the project in conjunction with subcontractor and utility work shall be paid for at the Lump Sum contract price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL). No additional compensation will be provided.

Materials used to provide temporary access shall be included in the cost of the various pay items and no additional compensation will be provided. Existing aggregate base course shall be ramped wherever possible adjacent to traveled lanes to avoid drop-offs greater than 3 inches.

<u>Limitations of Construction:</u> The Contractor shall coordinate the items of work in order to keep hazards and traffic inconvenience to a minimum as specified below.

1) All debris shall be removed from the pavement and parkway prior to any shift in staging operations or removal of traffic control.

The Contractor will be required to have someone available at all times to receive phone calls during non-working hours and who is able to reach the job site within one hour of being called. This person will be able to have flaggers on site within another hour to flag traffic as needed. Failure to have a person on site within an hour after the initial call out will result in the Contractor being charged a Traffic Control Deficiency deduction for a Calendar Day in accordance with the schedule in Section 108.09 of the Standard Specifications. Failure to have traffic restored with flaggers within two hours after the initial call out will result in the Contractor being charged a deduction for a Work Day in accordance with the schedule in Section 108.09 of the Standard Specifications by the City of Moline until traffic is restored. The Contractor may use a traffic control subcontractor for the first call; however, this does not relieve the prime Contractor from having a person on call.

The Contractor shall stage the work so that all side streets remain open to two-way traffic on 12th Avenue and 16th Street.

The Contractor shall be required to notify the City of Moline, The Rock Island County Highway Department, the corresponding Township Commissioner, emergency response agencies (i.e.: fire, ambulance, police), Moline Mass Transit, Moline - Coal Valley School District and it's school bus companies and the Department of Transportation (Bureau of Project Implementation) regarding any changes in traffic control.

The Contractor shall be responsible for providing a weekly article and map to the City of Moline for distribution to local media describing work being performed and stages closed to traffic.

No drop-offs greater than 12 inches shall be allowed to remain in place for longer than 48 hours.

Traffic Control Surveillance will be completed according to Section 700 of the Special Provisions. This work will not be paid for separately, but will be included in the **TRAFFIC CONTROL AND PROTECTION**, (SPECIAL), pay item.

All traffic control devices must remain in place until specific authorization for removal is received from the Engineer. The Contractor will be required to remove all traffic control devices which were furnished, installed or maintained by him under this contract and such devices shall remain the property of the Contractor upon said removal.

Basis of Payment: This work will be paid for at the contract unit price per lump sum for **TRAFFIC CONTROL AND PROTECTION**, (SPECIAL), which price shall be payment in full for all labor, materials, transportation, handling and incidental work necessary to furnish, install, maintain and remove all traffic control devices as indicated in these Specifications and as directed by the Engineer with the exception of flexible delineator maintenance, temporary pavement marking, and pavement marking removal. These items will be paid for separately.

#### PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH)

This work shall be in accordance with Section 440 of the Standard Specifications for Road and Bridge Construction. The depth of the concrete pavement removal is as shown on the plans or as directed by the Engineer.

Method of Measurement: Measurement for this work will be in square yards.

Basis of Payment: This work will be paid for at the contract unit price per square yards for **PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH)**, which price shall include all costs in full for materials, labor, equipment, and all included work.

#### **CONCRETE MEDIAN REMOVAL**

This shall be in accordance with applicable portions of Section 440 of the Standard Specifications and shall consist of removing and disposing of the specified portion of the concrete median surface (full depth) and any curb around it, as indicated on the plans or by the Engineer.

Method of Measurement: Measurement for this work will be in square foot.

Basis of Payment: This work will be paid for at the contract unit price per square foot for **CONCRETE MEDIAN REMOVAL.** 

#### **SEEDING (COMPLETE)**

This Supplemental Specification amends the provisions of the current edition of the Illinois DOT Standard Specifications for Road and Bridge Construction, and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

#### 211.02 Materials

Revise Item (a) to read:

a. Topsoil (Furnished from outside of the R.O.W.) shall be loamy soil from the horizon of soil profiles of local soils. It must have an organic content of at least 5%. It shall be free from large roots, sticks, weeds, brush, or stones larger than 1/4 inch in diameter, or other litter and waste products. At least 90 percent must pass the No. 10 sieve and the PH must be between 5.0 and 7.0. Topsoil shall be placed to a minimum four-inch (4") thickness. At the Engineer's request, the Contractor shall provide material verification.

#### 250.01 Description

Add the following paragraph to this Article:

The Contractor shall have the final responsibility for establishment of a close, healthy stand of grass. No extra compensation will be allowed in the event all or part of the area must be reseeded, including areas damaged by erosion. At time of final acceptance, all seeded areas shall be free of weeds.

Modify Section 250.07 of the Standard Specifications for Road and Bridge Construction to include the Contractor guarantee a 75 percent uniform growth over the entire seeded area(s) after one growing season, with no exception to the timing of the seeding. After one growing season, areas not sustaining 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost to the contract.

#### 250.02 Materials

Revise this Article to read:

On slopes 4:1 or flatter, the materials shall be CLASS 1, LAWN MIXTURE. On slopes steeper than 4:1, the materials shall be CLASS 3, SLOPE MIXTURE.

#### 250.04 Fertilizer and Agricultural Ground Limestone Application

Revise this Article to read:

A commercial grade starter fertilizer having a 3:1:2 ratio shall be applied according to the manufacturer's specified rate per square yard, and lightly tilled into the seedbed prior to the sowing of the seed.

#### 250.05 Seed Bed Preparation

Revise second and third sentence to read:

Before placing topsoil, the area to be seeded shall be free from weeds, clods, rocks, stones, sticks, rivulets, gullies, crusting, caking, and or other undesirable material to the satisfaction of the Engineer. Before seeding, the seed bed shall be free of all material over 1/4 inch in diameter. No seeding shall be done until the seed bed is approved by the Engineer.

#### 250.06 Seeding Methods

Add the following sentence to this Article:

Mulch as per Article 251.03, shall be used to protect the seed.

#### 250.09 Method of Measurement

Add the following sentence to subparagraph (b) of this Article:

All areas disturbed shall be seeded by the Contractor as part of this pay item.

#### 250.10 Basis of Payment

Revise this Article to read:

This work will be paid for at the contract unit price per square yard for **SEEDING (COMPLETE)** and shall include all costs for furnishing and placing topsoil, seed mixture, supplemental watering, fertilizer, and necessary mulch.

Earth excavation for topsoil placement shall not be paid for separately, but will be included in the SEEDING (COMPLETE) pay item.

#### **CONCRETE TRUCK WASHOUT**

This item shall consist of installing and maintaining a washout basin for concrete trucks and other construction vehicles.

The contractor shall provide a barrier wall washout basin per the requirements shown in the detail for "Temporary Concrete Washout Facility – Barrier Wall". The barrier wall washout basin is the minimum required. The contractor may request in writing to the Engineer to utilize alternate methods/designs for the washout basin. Any alternate will need to be approved by the Engineer.

The Contractor will be required to illustrate the location of the washout basin utilizing plan sheets from the plan set and submit the location to the Engineer for approval.

Any washouts constructed that do not meet the requirements of applicable IDOT and/or IUM standards will not be allowed.

Method of Measurement: Measurement for this work will be per each. The washout basin will be measured for payment only once for the entire project duration and will include any relocation and cleaning needed as required for construction to be completed along 12<sup>th</sup> Avenue and 16<sup>th</sup> Street.

Basis of Payment: This work will be paid for at the contract unit price per each for **CONCRETE TRUCK WASHOUT**. The price shall include general cleaning and removal of all construction debris when two-thirds full or as directed by the Engineer, general maintenance or reconstruct as necessary throughout the duration of use, and all material, labor, tools, equipment, disposal of surplus material, and all incidentals necessary to complete this item of work. If an alternate design for the washout basin has been submitted and approved for use in the project there shall be no additional compensation to the original unit bid price for **CONCRETE TRUCK WASHOUT**.

#### POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE. MIX "D". N50

This work shall be constructed in accordance with Section 406 of the Standard Specifications and the following additions:

#### 406.01 Description

Revise this Article to read:

This item shall include the furnishing of all equipment, labor and materials required to construct hot mix asphalt (HMA) binder and surface course in accordance with the typical sections on the plan sheets.

#### 406.05 Preparation, Priming and Leveling of Brick, Concrete, HMA or Aggregate Bases.

Revise the first two sentences of (a) to read:

Preparation - When existing pavement is used as a base, all loose, unstable pavement pieces, including but not limited to all cold patch material, crack filler and bituminous material that is unstable in hot weather, shall be removed with pneumatic tools or other approved equipment. The existing pavement shall then be cleaned of dirt and loose material to the satisfaction of the Engineer. Removal of all loose and unsound material will be as directed by the Engineer at no additional cost to the Contract.

Revise the 2<sup>nd</sup> paragraph of (a) of this Article to read:

Prior to placing leveling binder course for multiple course construction and prior to placing surface course mixture for single course construction, all open cracks and open expansion joints shall be primed and filled with mixture for cracks, joints and flangeways. Mixture shall be compacted to the satisfaction of the Engineer. Any sections of pavement cleaned in the above manner shall be filled before opening to traffic.

Revise the 1st and 2nd sentence of (b) to read:

Prime Coat: Before placing the bituminous mixture, the base, or base and gutter shall be dry and cleaned of all dust, dirt, and foreign material. Bituminous prime coat material for pavement to be resurfaced shall be SS-1hp or as specified in the project plans and specifications and applied at the rate specified in the plans and specifications.

Bituminous Material shall be as specified in the Mix Design table contained within the plans. The Type and Mix shall be as specified in the bid item.

Mix designs and materials inspection reports must be submitted to the City for approval prior to Notice to Proceed.

Basis of Payment: This work will be paid for at the contract unit price per ton for **HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50**.

#### INLETS, SPECIAL REMOVE AND REPLACE LID

This work will consist of removing the existing concrete inlet lid and replacing it with a new one at the locations shown on the plans. The lids shall conform to the details for Inlet Special No. 1 or Inlet Special No. 2, Nose Type for Inlet Top Slab. It will be the Contractor's responsibility to verify the dimensions before constructing or ordering the lid. Prior to securing the lid, the Contractor shall clean and remove any debris within the inlet structure. These inlets will also be adjusted according to the special provision for INLETS TO BE ADJUSTED, (SPECIAL).

Method of Measurement: Measurement for this work will be per each.

Basis of Payment: This work shall be paid for at the contract unit price per each for **INLETS, SPECIAL REMOVE AND REPLACE LID**.

#### **INLETS TO BE ADJUSTED (SPECIAL)**

Inlets to be Adjusted, Special shall consist of adjusting the existing lids on an Inlet Special No. 1 or 2 along with the Catch Basins as called out on the plans. Existing lids that are cracked or damaged due to contractor negligence, will be removed and replaced at no additional cost to the Contract, with a new lid, prior to adjustment. After removing the existing lid the Contractor shall clean the exposed top of inlet box to allow for better adhesion between the existing and the new.

#### Method of Adjustment:

The Contractor will have two options to make the necessary adjustments. The lids can be adjusted using pre-cast rings or by using a poured grout. In both options, the lids shall be adjusted a minimum of 3" (overlay thickness) or to a height as to keep the opening the same as the existing opening. No brick, block or mortar shall be allowed to make the adjustment.

#### Pre-Cast Ring Adjustment Method

An appropriate sized pre-cast adjustment "ring" with reinforcement can be used for the adjustment. The pre-cast adjustment ring will need to have the end facing the curb removed to allow for water to drain into the inlet. The ring shall be secured to the existing inlet box using an approved mastic type joint sealant compound. The lid will also be fastened to the pre-cast ring with a mastic type joint sealant compound.

#### Poured Adjustment Method

The Contractor shall anchor (2)-No. 4 rebar, 6" long, into the existing inlet walls, not including the wall closest to the curb line, to a depth of 4" with an approved epoxy material. The rebar shall be evenly spaced along the inlet walls. All reinforcement bars shall be epoxy coated. The Contractor will construct an inside and outside form to contain the material to be poured. The poured material shall be a TYPE "S" grout. After proper curing of the grout material, the contractor shall fasten the lid with a mastic type joint sealant compound.

After adjustment, the Contractor shall use an approved, self-adhesive waterproofing membrane to seal the joint between the existing Inlet structure and the lid, regardless of which adjustment method used.

The lid of the Inlet Special will be placed so the top of the lid and the ground are flush. Any other disturbed areas around the structure to be adjusted shall also be repaired. This work will be paid for as SEEDING (COMPLETE).

A maximum of 5 feet of curb and gutter shall be removed on each side of the inlet or as directed by the Engineer. The curb removal will not be paid for separately, but shall be considered as included to this item. Removal of additional curb may be required at the direction of the Engineer. The gutter flag shall be constructed at the same elevation as the existing, and the curb shall be tapered from the existing curb to the top of the adjusted lid. The concrete required for the gutter flag and curb will not be paid for separately, but shall be considered as included to this item. Curb and gutter

replacement shall be done in accordance with City of Moline Standard Details, Section 606 of the Standard Specifications and District Standard 17.4.

Damages caused to the existing inlet box because of the Contractor's failure to exercise care shall be repaired to the satisfaction of the Engineer and no additional compensation will be allowed.

Method of Measurement: This work will be paid for per each.

Basis of Payment: This work shall be paid for at the contract unit price per Each for **INLETS TO BE ADJUSTED**, **SPECIAL**, which price shall include the furnishing of all labor, equipment and materials and the performing of all work required to adjust to the lid to fit the top of curb, sidewalk, driveway or ground.

#### MANHOLE, INLET, DRAINAGE STRUCTURES AND VALVE VAULT CONSTRUCTION FOR ADJUSTMENT

This item includes furnishing all labor and materials, needed to bring the existing manholes and/or water valves to the new grade of the street as specified by the Engineer and in accordance with Section 602 of the Standard Specifications and the following:

#### 602.01 Description

Add the following sentence to this Article:

This section shall also consist of the construction and/or adjustment of HANDHOLES, VALVE BOXES, GAS VALVES and CLEANOUTS.

#### 602.04 Concrete

Revise this Article to read:

Structures shall be constructed of pre-cast reinforced concrete sections or cast-in-place concrete only.

#### Sanitary sewer structures:

The bottom, barrel and concentric transition sections of the manhole or flat top shall be constructed of precast reinforced concrete sections only. Sanitary Sewer manholes shall have a sealed exterior, sealed with bitumastic material meeting federal specification SSC153C, Type 1 or SSA 649D. Manhole bottoms shall be configured so that the flowline of the bottom reflects a cross section that is at a minimum the diameter of the outgoing pipe.

Valve Vaults shall be constructed with a minimum inside diameter of five (5) feet.

#### 602.05 Brick Masonry

Revise this Article to read:

Brick masonry shall not be used for the construction or adjustment of structures.

#### 602.06 Concrete Masonry Units

Revise this Article to read:

Concrete masonry units shall not be used for the construction or adjustment of structures.

#### **602.07 Precast Reinforced Concrete Sections**

Add this paragraph to this Article:

When required, a cast in place concrete collar shall be used. Adjustments shall be made using cast in place concrete or TYPE "S" grout. Drilled bars shall be used when extending walls to the proper elevation. Bars shall be #4, drilled 4" into existing walls at 12" centers. All reinforcement bars shall be epoxy coated. Any bricks and/or adjustment rings shall be removed and replaced with this method of adjustment.

The casting shall be sealed to the concrete with a mastic type material approved by the Engineer.

#### 602.08 Steps

Revise this Article to read:

Steps are not required for valve vaults or manholes and shall be omitted.

#### 602.11 Furnishing and Placing Castings

Add the following paragraph (a):

All existing frames and lids shall be replaced with frames and lids provided by the City. All replaced frames and lids shall remain property of the City of Moline, with the Contractor responsible for salvage to the City.

All new or replaced frames and lids for manholes and valve vaults will be furnished by the City of Moline. This includes any storm or sanitary manhole, or water valve vault being adjusted, reconstructed, or installed. The Contractor shall install the new frames and lids on manholes to be adjusted or new manholes and/or valve vaults. The cost of delivery and installation of the provided frames and lids shall be included in the contract unit price per each for SANITARY MANHOLE, of the type and size specified, VALVE VAULT, of the size specified, FRAME AND LID ADJUST, of the type specified, or VALVE VAULT ADJUST, of the size specified.

When a Type 1 Frame W/Bolted Frame and Lid is specified, the frame shall be bolted directly to the concrete section. Bolting to an adjustment ring will not be allowed. This item shall include the furnishing of all labor, equipment and materials and the performing of all work required to remove and replace existing frames and lids of sanitary sewer manholes. New frames and lids unless otherwise noted shall be a self-sealing lid stamped "SANITARY", concealed pickhole, gaskets, and anchor bolts.

All storm drainage structures with new frames, lids and grates, including but not limited to catch basin single / double, catch basin specials, etc. shall have a "NO DUMP" environmental stamp. When existing frames, grates and lids are to be used, a fabricated marker will be provided by the City of Moline, to be installed by the Contractor.

Add this paragraph to (b) Placing for Rigid Pavements:

"Box-outs" shall be optional for valve vaults, manholes, valve boxes, cleanouts, inlets single and doubles, etc. All adjustments must be completed prior to pavement placement or finishing box-outs.

Revise the second paragraph of (c) Placing for Flexible Pavements to read:

After the finish surface has been placed, the structures shall be adjusted to grade using Concrete "Box-outs" constructed according to City of Moline Standard Details. Adjustment shall be required for valve vaults, manholes, valve boxes, cleanouts, inlets single and doubles, etc.

#### 602.13 Inlet and Outlet Pipes

Add this paragraph to this Article:

Place upstream of structure, where new storm sewer is constructed, a six-foot length of perforated, corrugated polyethylene (PE) tubing 4", encased in a fabric envelope. Connect to storm manholes, inlets and catch basins. Pipe and connection shall be incidental to these items, as per City of Moline Standard Details. The end of said tubing shall be capped.

#### 602.15 Cleaning

Add this paragraph to this Article:

The Contractor shall remove lids and thoroughly inspect all existing structures prior to reconstructing and/or adjusting. The Contractor shall notify the Engineer in writing, of structures containing preconstruction silt, debris or foreign matter of any kind. If the Contractor fails to notify the Engineer of pre-existing conditions, no additional compensation will be allowed for, Engineer directed, cleaning of structures prior to final project approval.

Pressure testing of sanitary manholes shall be in accordance with the "Illinois Recommended Standards for Sewage Works and the Design Criteria for Pressure Sewer Systems" except as follows, Section 370.32 (h) Joints and Infiltration

#### 2) Leakage Testing

- A) All main line sewers on new development projects shall be tested. On reconstruction projects where laterals have already been connected, testing will not be required.
- B) Leakage testing for manholes with frame in place shall be in accordance with the latest version of ASTM C1244, "Standard Test Method for Concrete Sewer Manholes by the Negative Pressure (Vacuum) Test Prior to Backfill"

#### 602.16 Basis of Payment

Add these paragraphs to this Article:

Connection of new structures to new and/or existing sewers shall be incidental to these items. All required pipe for said connections shall also be incidental.

Any additional adjustments required for new and/or reconstructed structures to meet the design elevation will be incidental to the item.

These items include the furnishing of all labor, equipment and materials and the performing of all work required to adjust frames, lids or tops of inlets, valve boxes, hand-holes, manholes, etc. to fit the finished surface elevation of the completed pavement, top of curb, sidewalk, driveway or ground.

Basis of Payment: This work will be paid for at the contract unit price per each for MANHOLES TO BE ADJUSTED, SANITARY MANHOLES TO BE ADJUSTED, WATER VALVES TO BE ADJUSTED, INLETS, SPECIAL and shall also apply to HANDHOLE TO BE ADJUSTED, GAS VALVE TO BE ADJUSTED and ADJUST SANITARY SEWER CLEANOUT.

#### PORTLAND CEMENT CONCRETE PAVEMENT

This work shall be constructed in accordance with Section 420 of the Standard Specifications and the following additions:

#### 420.01 Description

Add the following sentences to this Article:

All P.C.C. pavements shall include 6-inch integral curb unless otherwise specified. Curbs shall be constructed in accordance with the City of Moline Standard Details.

Integral concrete curb shall be cast monolithically with the pavement in accordance with the City of Moline Standard Details. The curb shall be formed with a moving finishing template or "mule" of a design approved by the Engineer. The template shall be a part of the pavement finishing machine and shall be designed so as to produce uniform curb of the exact dimensions required by the plans. It shall incorporate a means of consolidation of the concrete in the curb by a method approved by the Engineer.

Forms with a base width less than the height may be used provided they are stable, while the finishing equipment is operated upon them and do not settle under the weight of the finishing machine. If additional form height is added to accommodate the curb after the passage of the pavement finishing equipment, the form arrangement shall meet with the approval of the Engineer.

When a vibrating screed is used, the curb may be formed in a separate operation from the pavement, and shall be placed immediately following the longitudinal floating operation. Curb concrete shall be thoroughly rodded or spaded into the surface of the pavement concrete while the latter is still in a completely plastic state. The curb and the gutter line shall be finished in accordance with the applicable provisions of Section 606.

Contraction joints shall be constructed in the curb in prolongation of the joints in the pavement and shall be constructed as per the plans or as directed by the Engineer.

Curing shall be in accordance with Article 1020.13 (a).

#### 420.03 Equipment

Revise the following paragraphs as indicated:

- (c) A mechanical concrete spreader will not be required.
- (d) "The finishing machine shall be of a type approved by the Engineer, shall be self-propelled and shall be capable of striking off, consolidating and finishing concrete of the consistency required by the specifications to the proper crown and grade." A vibrating screed will not be allowed for pavement placement of mainline pavement.
- (e) A mechanical longitudinal float will not be required.

Add the following paragraph to this Article:

(k) "The subgrade template shall be of a design approved by the Engineer and shall be capable of accurately indicating high and low spots in the subgrade with relation to the side forms." The finished subbase shall be constructed in such a manner that it conforms to the designed profile and cross section to the extent that it is not higher than the designed elevation and at no point is lower than 0.05 feet below this elevation.

#### 420.05 Joints

Add the following to the 1st paragraph of this Article:

Longitudinal joints shall only be located at traffic lane edges and shall not be placed in wheel paths. City of Moline Details shall govern for load transfer assembly and tie bar requirements.

#### 420.06 Forms and Form Setting

Add the following paragraph to this Article:

Flexible or curved forms of proper radius, made of wood or other bendable material shall be supplied for use on curves of 100 foot radius or less. Thickness should be a min. of 3/4". Nailing 2 layers of 3/8" masonite to meet the 3/4" requirement is acceptable. "Box-outs" shall be optional for manholes, valve boxes, cleanouts, inlets single and doubles, etc. All adjustments must be completed prior to pavement placement or finishing box-outs.

#### 420.09 Strike Off, Consolidation, Finishing, Longitudinal Floating, Straightedging, Edging, and Final Finish

- (a) Strike Off, Consolidation, and Finishing
  - (1) Revise last sentence of 2<sup>nd</sup> paragraph to read:

The rate of depositing concrete shall not exceed the amount that the finishing machine can strike off and consolidate. Not more than one pass of the vibratory equipment shall be made over the payement surface.

(3) Add following subparagraph to this section of this Article:

No sections 100 ft. or greater in length shall be placed by this method. All sections greater than 100 feet shall be placed using a paving machine.

#### (b) Longitudinal Float Method

Revise 1st sentence of (b)(3) to read: Longitudinal Floating, Hand Method, will be required.

#### (e) Final Finish

Revise 1st sentence to read:

The final finish type used shall be Type "B" unless otherwise noted on the plans, or Type "A" if the pavement grade exceeds 6%.

#### 420.19 Method of Measurement

Add subparagraph (c) to this Article:

PORTLAND CEMENT CONCRETE BASE COURSE, 8" and PORTLAND CEMENT CONCRETE PAVEMENT WITH INTEGRAL CURB shall be measured in place and the area computed in square yards completed and accepted. The width for measurement shall be the width from outside to outside of completed pavement, including integral curb when required, as shown on the plans or as directed by the Engineer.

#### 420.20 Basis of Payment

Revise the 1st paragraph of this Article to read:

These items will be paid for at the contract unit price per square yards for: **PORTLAND CEMENT CONCRETE BASE**COURSE 8" and **PORTLAND CEMENT CONCRETE PAVEMENT WITH INTEGRAL CURB** of the thickness specified which shall include the following items:

- 1. Integral curb when required
- 2. Longitudinal, construction, and expansion joints as shown on the plans or required by the attached standards or during construction including all associated hardware;
- 3. Sawed transverse or other joints;
- 4. Reinforcement

Revise the 4<sup>th</sup> paragraph to read:

Protective Coat, when required, shall be incidental to the pavement and shall not be paid for separately.

Add this paragraph to this Article:

Excavation required in the performance of the work will be included.

#### PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH

This work shall be constructed in accordance with Section 423 of the Standard Specifications and the following additions:

#### 423.01 Description

Add the following paragraph to this Article:

Driveway Pavement shall be 7" unreinforced or 6" with 42 lb. or 63 lb. woven wire fabric.

#### 423.11 Basis of Payment

Add following subparagraph to this section of this Article:

All excavation; the furnishing and placing of any required aggregate fill; the furnishing of equipment and materials including all expansion joint material adjacent to sidewalks and property lines; and all labor, including required saw cutting, necessary to construct new driveways to the lines and grades shown on the plans or as directed by the Engineer shall be included in the unit cost for this item.

This work will be paid for at the contract unit price per square yard of **PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH**.

#### PORTLAND CEMENT CONCRETE SIDEWALK

This work shall be constructed in accordance with Section 424 of the Standard Specifications and the following additions:

#### 424.01 Description

Add the following sentences to this Article:

Sidewalks shall be a minimum of 4 inches, as specified on the plans. Any additional excavation and/or fill necessary to raise or lower the grade to obtain a 4-inch thickness shall be included in this pay item.

#### 424.08 Curb Ramps

Sidewalk ramps shall be a minimum of <u>6 inches thick</u>, or as specified in the plans. This includes the lower landing, the ramp, and the upper landing. Any additional excavation and/or fill to raise or lower the grade as required to obtain a 6-inch thickness shall be included in this pay item.

The procedure for installing handicap ramps on a section of pavement being overlaid with HMA shall be the following:

- 1. Place the asphalt on the roadway
- 2. Saw cut and remove the curb and asphalt-overlaid flag
- 3. Replace the concrete curb and gutter to meet ADA compliance
- 4. Install new ADA compliant sidewalk ramp

The City of Moline specifies the installation of cast in place surface tiles. Tiles shall be powder coated cast iron. Color shall be "Canox Red". The Contractor shall provide a sample to the Engineer for approval.

Detectable warnings shall be radial or straight as indicated on the plans. The Contractor shall not saw cut straight detectable warnings to make them radial.

#### 424.12 Method of Measurement

Delete the 2<sup>nd</sup> paragraph of this Article and insert the following:

Sidewalk (ADA) accessibility ramps shall be measured as the horizontal surface area of P.C.C. Sidewalk Ramp, of the specified thickness, and shall include the lower landing, ramp, upper landing and transition areas. Detectable warnings shall be measured and paid for separately.

#### 424.13 Basis of Payment

Revise this Article to read:

This work will be paid for at the contract unit price per square foot for PORTLAND CEMENT CONCRETE SIDEWALK, of the thickness specified and DETECTABLE WARNINGS. Price shall include all excavation, furnishing and placing of any required aggregate fill, furnishing of equipment and material, and all labor required to construct new sidewalks and ramps to the lines and grades shown on the plans or as directed by the Engineer. Sidewalk ramps are to be 6 inches thick and shall be paid for as PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH. Sidewalk removal shall be paid for separately.

#### **PAVEMENT PATCHING**

This work shall be constructed in accordance with Section 442 of the Standard Specifications and the following additions:

#### 442.01 Description of Work

Revise this Article to read:

This work shall consist of the removal of existing pavement, all necessary excavation and replacement in accordance with City of Moline Standard Detail Sheets, with the class and type of patch specified on the contract documents, plans, schedule of quantities or as directed by the Engineer.

#### 442.02 Materials

Add:

Note 5. P.C.C. materials used for all patching shall be a Ty III, 3500psi, 3 day mix design.

Note 6. All patches shall include 63# mesh.

#### 442.05 Pavement Removal

Revise the last sentence of the 6<sup>th</sup> paragraph of (b) Class B Patches

If any subbase or stabilized subbase material that is disturbed during pavement removal operations or determined unsuitable by the Engineer, the Contractor shall furnish and place sufficient aggregate to bring the subbase back to the bottom of pavement elevation. Re-compaction of existing and/ or added aggregate base will be required.

#### 442.06 Pavement Replacement

Revise the 1st sentence of this Article to read:

Patches shall conform to City of Moline Standard Detail Sheets.

Revise subparagraph (a) (2) to read:

If an expansion joint is present in the existing pavement, # 8 dowel bars at 12 inch centers with caps and 1" preformed expansion material shall be inserted at the existing joint location instead of deformed bars.

#### 442.10 Method of Measurement

Revise the 1st paragraph to read:

The patch quantities listed on the Schedule of Prices are estimates and actual measured quantities may vary. Measurements for this work shall be made for in square yards for actual quantities placed.

Delete the 2<sup>nd</sup> paragraph:

Revise the 3rd paragraph to read:

No additional compensation for variation in thickness will be allowed.

Revise the 5th paragraph to read:

Expansion joint shall be incidental to patches.

Revise the 6th paragraph to read:

Epoxy coated smooth dowel and deformed bars shall be incidental.

Revise the 7th paragraph to read:

Pavement fabric shall be incidental to all patches regardless of size.

Revise the 8th paragraph to read:

All required saw cutting shall be incidental.

#### 442.11 Basis of Payment

Delete the 3<sup>rd</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup> paragraphs of this Article

Add the following paragraphs to this Article:

All work shall be paid for at the contract unit price for the type of patch constructed which shall include all items of labor, equipment and materials. If curb and gutter replacement is required as part of a patch, it shall be measured in square yards of horizontal and vertical surface area and paid for as "CLASS B PATCHES" of the type specified.

Work shall include all labor, material and equipment necessary to saw cut the existing pavement to full depth around patches as directed by the Engineer, pavement removal or temporary patch removal and the surrounding pavement to the new full depth saw cut or existing joint, and excavation as needed for furnishing and placing a minimum 6 inches of aggregate base course material. Pavement removal shall include the removal of all existing paving materials encountered.

Costs associated with furnishing, placing and compacting a minimum 6 inches of aggregate base course, re-compaction of existing aggregate base, and membrane curing, will be included as part of the per square yard unit price for **CLASS B PATCHES** of the Type and thickness specified.

#### DOMESTIC WATER SERVICE BOXES TO BE ADJUSTED

This work shall be constructed in accordance with Section 565 of the Standard Specifications and the following additions:

#### 565.01 Description

Revise the 1st paragraph of this Article to read:

This work shall include but not be limited to the relocation and/or adjusting of domestic water service boxes. Installation shall be in accordance with the City of Moline Standard Details and as specified on the plans.

#### 565.02 Materials

Revise this article to read:

All materials shall meet the City of Moline Plumbing Code.

#### 565.04 Basis of Payment

Revise this Article to read:

Adjusting water service boxes shall be paid for at the contract unit price per each for <u>DOMESTIC WATER SERVICE BOXES TO BE ADJUSTED</u>. The unit price for this item shall include all labor, material and equipment necessary to adjust the respective devices to the proposed grade. The Contractor shall supply and install a "Curb Box Sleeve" when the water service box is located within concrete.

#### REMOVE AND RE-ERECT SEGMENTAL BLOCK RETAINING WALL

Description: This work shall consist of removing an existing segmental block wall at the location shown on the plans and reinstallation at the new location shown on the plans to accommodate the reconstruction of the driveway at 1222 37<sup>th</sup> Street Court. This work shall also include all excavation necessary to construct the wall, leveling pad, select fill, sub drains, and soil reinforcement, if required by design.

Any new blocks required for the reconstructed wall shall appear as close as possible in texture and color to the existing.

Connections between existing wall to remain and relocated wall shall be in accordance with wall manufacturer's standards and recommendations.

Any blocks damaged during removal and re-erection shall be replaced at no additional cost. Any blocks remaining after construction of the wall shall become property of 1222 37th Street Court.

Method of Measurement: This work will be measured for payment per square foot of wall, based upon final wall geometry.

Basis of Payment. This work will be paid for at the contract unit price per vertical square foot based upon final wall geometry for **REMOVE AND RE-ERECT SEGMENTAL BLOCK RETAINING WALL**.

#### TIMBER RETAINING WALL REMOVAL

This work shall be per applicable portions of Section 440 of the Standard Specifications and as directed by the Engineer and shall consist of removing and disposing of existing structural timber retaining walls at locations as shown on plan details.

Designated timber retaining walls shall be removed and existing anchorage devises, when encountered, shall be removed or cut off flush with adjacent timber apertures and the timber members disposed of off the right of way at an approved disposal site.

Method of Measurement. This work will be measured for payment per foot as measured along the top of the retaining wall.

Basis of Payment. This work will be paid for at the contract unit price per foot for **TIMBER RETAINING WALL REMOVAL** which price shall be payment in full to complete this work.

#### REMOVE AND REPLACE CURB AND GUTTER, SPECIAL

This work shall consist of the removal of the existing curb and gutter and the construction of new concrete curb and gutter to match the existing curb and gutter type including all necessary excavation, embankment and doweling as shown in the detail on the plans and in accordance with Sections 202, 205, 311 and 606 of the Standard Specifications and as specified in the City of Moline Specifications and Standard Details herein. For the purposes of this item, no differentiation shall be made between concrete curb, combination concrete curb and gutter and integrally-poured concrete curb and gutter. Concrete curb and gutter shall be constructed to existing lines and grades, except as directed otherwise by the Engineer to address localized drainage issues or ADA requirements.

In addition to the requirements of Article 606.06 of the Standard Specifications, the Contractor shall excavate all material necessary to build the proposed curb and gutter and proposed subbase in accordance with Section 202 of the Standard Specifications. The area between the edge of the existing pavement and the face of the new gutter shall be cleaned of all loose material and then filled with Class SI concrete to a minimum 6-inch width, 2" below the top of the proposed gutter flag. Driveways shall not be removed for forming purposes unless approved by the Engineer.

The proposed subbase shall be subbase granular material, Type B with thickness of 6" in accordance with Section 311 of the Standard Specifications and the City of Moline Standard Details. Backfill behind the proposed back of curb shall be in accordance with Section 205 of the Standard Specifications.

The Contractor shall machine-saw a perpendicular clean joint between that portion of the curb and gutter to be removed and that which is to remain in place. If the Contractor removes or damages the existing curb and gutter outside the limits designated by the Engineer for removal and replacement, he will be required to remove and replace that portion at his own expense to the satisfaction of the Engineer.

Expansion joints shall be placed at a maximum spacing of 50 feet and on each side of a curb drainage structure. Expansion joints shall be constructed with 2 - No. 6 epoxy coated smooth dowel bar, 18" long. Contraction joints shall be placed at a maximum spacing of 20 feet.

Where pavement patching will be adjacent to integral curb and gutter, the replacement curb and gutter shall not be paid for separately, but shall be considered part of the pavement patch.

Construction joints with dowel bars shall be provided at the end of a day's work. Transverse expansion joints (including two 1-1/8" diameter smooth coated dowel bars) shall be constructed at curvature points, and at additional locations designated by Engineer. Cost of all joints shall be incidental to the curb, or curb and gutter item.

At each location where the new curb meets the existing curb, the existing and new curb shall be tied together with 2 - No. 6 epoxy coated smooth dowel bar, 18" long. Dowel shall be drilled and grouted into the existing curb.

Depressed curb for driveway openings and at sidewalk ramps accessible to the disabled shall be constructed at the locations shown on the Drawings or designated by Engineer. No additional compensation will be made for depressed curb at ramp or driveway locations.

The Contractor shall backfill behind the new curb and gutter, to the satisfaction of the Engineer, within seven (7) calendar days of the placement of the curb and gutter.

Basis of Payment. This work will be paid for at the Contract Unit Price per Foot for **REMOVE AND REPLACE CURB AND GUTTER (SPECIAL)**, regardless of curb and gutter type removed and replaced; measured in place, which price shall include all materials, labor, tools, equipment, and any incidentals, including pavement removal, excavation, dowel bars and reinforcement, expansion joints, and backfill necessary to satisfactorily complete the work as described herein.

#### **CORRUGATED MEDIAN REMOVAL**

This work shall consist of the satisfactory removal and disposal of existing corrugated concrete median in accordance with applicable portions of Section 440, and 606 of the Standard Specifications and as directed by the Engineer.

Saw cuts may be required for the removal along the existing edge of pavement to cut through existing tie bars. This work will be measured for at the contract unit price per square foot for CORRUGATED MEDIAN REMOVAL, which shall include all removal, and disposal costs. Necessary saw cuts will not be paid for separately, but will be considered included in the contract unit bid price.

Basis of Payment. This work will be paid for at the contract unit price per square foot for **CORRUGATED MEDIAN REMOVAL**.

#### WIRELESS VEHICLE DETECTION SYSTEM

The Contractor shall furnish and install embedded loop detectors on the North and South Legs of 41st Street at the intersection of 12th Avenue and 41st Street. The Traffic Signal Detector shall be of the magnetic field (magnetometer) sensing technology capable of detecting and reporting volume count, speed, occupancy and headway, as a minimum.

The system shall be manufactured by Sensys Networks as supplied by GBA Systems Integrators. The sensor section of the detector shall be embedded in the roadway pavement and shall utilize a radio transmitter link for the detector to a receiver radio being provided to the traffic controller and/or central monitoring server. The detector sensor embedded in the pavement shall not exceed a four (4) inch diameter and a depth of two (2) inches and shall be installed by the Contractor in a factory defined four (4) inch diameter, two and a half (2.5) inch deep cored hole in the pavement, centered in the travel lane. Detector sensors, embedded at a distance greater than one-hundred and fifty (150) feet from the receiver unit installed at the traffic controller cabinet, shall have a repeater installed to relay the sensor data to the receiver. The embedded detector sensor shall be battery operated with a battery design rated for seven (7) year life in this application.

The Detector Sensing System shall deploy a field proven and tested design of a minimum of one year prior to the issuance of this specification. The field proven and tested design shall have included an actual field installation utilizing a minimum of four (4) sensors and a central receiver functioning per specifications for a continuous twelve months. Each detector sensor unit shall self-calibrate and self-configure their electronics for proper detection application. Each sensor unit shall be provided with flash memory upgrade capability to allow upgraded operation or safety enhancements to be "flashed" into local memory without removing the device from the pavement.

The Detector Sensing System shall deploy a design that supports a minimum of eight sensor units being controlled by a radio repeater and a design that incorporates repeaters and a single receiver that supports a cumulative sum of eighty (80) separate detector sensors concurrently at any traffic signalized intersection. The design shall structure data

transmissions in a manner as to be non-interfering with other sensors installed. This design shall include a non-interference technique that allows radio link from the detector sensor to the repeater/receiver and a radio link from each repeater to the receiver base at the traffic controller. Repeater devices shall deploy a battery operation or be provided with a battery with solar recharging installation.

Batteries shall be rated for a minimum of two (2) years. Each repeater device or receiver device shall be capable of receiving up to eight (8) embedded detector sensors at a range of up to 150 feet from the repeater to the embedded detector sensor.

The Contractor shall purchase one each Circular Core Drill device from the detector manufacturer that is designed to properly core the four-inch hole and shall furnish the device to the City Traffic Engineer after installation of the detectors.

The Contractor shall furnish and install factory provided epoxy fill for the roadway based on the pavement surface where the detectors are being installed, that being asphalt or concrete. The Contractor shall be required to utilize the proper epoxy when temperatures are below or above the standard epoxy type rating.

The Contractor shall furnish and install detector cards for the new traffic control detector rack positions. Each detector card shall be a four-channel device and shall be capable of providing detector ground true input to the traffic controller as well as linking the detector data to a remote Ethernet port for remote monitoring, concurrently. Traffic controller detector sensor card units shall be compatible with TS-1 terminal facility terminations. The Contractor shall furnish and install the number of detector cards and Expansion Modules required providing one detector input to the traffic controller for each detector sensor installed. The Contractor shall be responsible to modify existing detector racks to accommodate the new detector, to include modification of the backplane of the detector rack for shared channel applications (crossover links between channels) where not currently installed.

The Contractor shall furnish and install one repeater site for all embedded sensors installed more than 150 feet from a receiver or repeater. The Contractor shall furnish and install an additional repeater for any repeater that is installed at a distance greater than 900 feet from a repeater or receiver and/or does not provide sufficient radio propagation to properly support a radio link – repeater to repeater or repeater to receiver, such as could occur with non-line of sight locations.

The Contractor shall provide factory or factory representative turn-on support for all radio installations to implement the radio and device programming. Radio transceivers shall utilize devices that are compliant with IEEE 802.15.4 standards and are able to operate on any of the allocated 16 channels of the 2.4 to 2.48 GHz spectrum. The factory support shall include the programming of the embedded sensor time slots and shall provide a written copy of the final design to the City Traffic Engineer plus one copy for the traffic controller cabinet. One software set of device programming (GUI), if other than standard WEB Browser via SNMP protocol, shall be provided for each intersection where devices are installed. The factory representative shall certify proper installation of the devices, the radio links, device settings and the traffic controller detector assignments. The factory representative shall provide an on-site computer and shall link to the Contractor furnished and installed Access Box for all programming.

The Contractor shall furnish and provide a training course for the programming of the detectors by a Factory Technician or their field representative on the design, operation, and maintenance of the Detector Sensing System and the supplied GUI program. The GUI software, Contractor furnished to the City, shall provide real time management and monitoring of the Detector Sensing System as well as the Event Processing Software. One copy of the Event Processing Software shall be installed and made operational on a City supplied SQL Server connected to the traffic network.

This work will be measured for at the contract unit price per each per intersection for **WIRELSS VEHICLE DETCTION SYSTEM**, which shall include all above work and equipment whether included in this special provision or any

equipment required for proper installation shall be taken into consideration and shall be included in the bid price.

Basis of Payment. This work will be paid for at the contract unit price per each per intersection **WIRELESS VEHICLE DETECTION SYSTEM**.

#### **CONCRETE MEDIAN (SPECIAL)**

This work shall consist of constructing a concrete median at the location depicted on the plans. This work shall be constructed in accordance with Section 606 of the Standard Specifications and District 2 Standard Drawing 4.1

The dimensions of the concrete median shall be in accordance with the detail in the plans.

Measurement for this work will be in square foot. The intermediate and small islands will be measured for payment from Edge of Pavement to Edge of Pavement, which shall include the combination curb & gutter, sidewalk, aggregate fill, concrete median surface and solid concrete median.

This work will be paid for at the contract unit price per square foot for **CONCRETE MEDIAN (SPECIAL)**.

#### **FULL-ACTUATED CONTROLLER TYPE IV CABINET, SPECIAL**

This item shall comply with the applicable portions of Section 857 of the Standard Specifications with the following modifications:

The equipment furnished shall be the latest EPAC, M-52 model controller manufactured by Eagle Signal. The controller shall include manual control complete with push-button and a coiled cord. The ground rod for this item shall be located in the adjacent handhole. It shall be connected with green 1/C No. 6 grounding cable.

The Controller shall be installed at Station 228+55.1, 43.4' LT of the 12<sup>th</sup> Avenue Centerline Alignment. This location is approximately the same as the existing controller and cabinet that is scheduled for removal. The Contractor is to utilize as much of the existing conduit and electrical cable as permitted to connect the existing signals to the new cabinet and controller.

This work will be paid for at the contract unit price per each for <u>FULL-ACTUATED CONTROLLER TYPE IV CABINET</u>, **SPECIAL**.

#### REMOVE EXISTING TRAFFIC CONTROLLER AND CABINET

This work shall be in accordance with Section 895 of the Standard Specifications. This work shall consist of removing the existing traffic signal item as indicated in the plans. All salvageable items, as determined by the Engineer, shall be placed at a location designated by the Engineer for pickup by City Forces and shall remain the property of the City. Non- salvageable items, including concrete debris, shall be disposed of according to Section 895.

Basis of Payment. This work will be paid for at the contract unit price per each for **REMOVE EXISTING TRAFFIC CONTROLLER AND CABINET**.

#### **TEMPORARY PAVEMENT**

This work shall consist of producing and constructing a HMA surface on a prepared base, in accordance with applicable portions of Section 311 and 406 of the Standard Specifications, The Contractor shall install a 12-inch Aggregate Base Course, Type B, 3 inches of a HMA Binder Course and 3 inches of a HMA Surface Course, to serve as a temporary surface at the locations shown on the plans or as directed by the Engineer.

Materials: Surface Mixture 9.5, Mix C, N 50 shall be used. Binder Course N50, IL-19.0.

Required Field Tests: Density Acceptance at 95% - 102°/o of growth curve at the frequency indicated in Article 1030.05(d) (3).

All work and materials required to complete the work listed above including excavation and removal of the Temporary Pavement when it is no longer needed shall be included in the contract unit cost per square yard for TEMPORARY PAVEMENT.

The hot-mix asphalt and sub-base shall be removed after the final stage is completed or as staging elements dictate. Removal shall not be paid for separately, but shall be included in the cost of TEMPORARY PAVEMENT.

Basis of Payment: This work will be paid at the contract unit price per square yard for **TEMPORARY PAVEMENT**.

#### **ISLAND REMOVAL**

This work shall consist of the removal and disposal of the islands as shown on the plans. This work shall be done in accordance with applicable portions of Section 440 of the Standard Specifications and shall include the removal of the concrete island surface, concrete curb & gutter, and excavation below the concrete to a depth of the bottom of the adjacent concrete pavement.

Method of Measurement: Measurement for this work will be in square foot.

Basis of Payment: This work will be paid for at the contract unit price per square foot for **ISLAND REMOVAL**.

#### REMOVE EXISTING CONCRETE FOUNDATION

This work shall be completed in accordance with Section 737 of the Standard Specifications for traffic control items.

Method of Measurement: Measurement for this work will be per each.

Basis of Payment. This work will be paid for at the contract unit price per each for **REMOVE EXISTING CONCRETE FOUNDATION** which shall be payment in full for removing the existing concrete foundation and restoring the surrounding ground surface to match the adjoining area.

#### **HOT-MIX ASPHALT MIXTURE IL-9.5FG (BMPR)**

Effective: July 1, 2005

Revised: December 28, 2010

<u>Description</u>. This work shall consist of constructing fine graded hot-mix asphalt (HMA) surface course or leveling binder with an IL-9.5FG mixture. Work shall be according to Sections 406, 407 and 1030 of the Standard Specifications, except as modified herein.

Materials. Revise Article 1003.03(c) of the Standard Specifications to read:

"(c) Gradation. The fine aggregate gradation for all HMA shall be FA 1, FA 2, FA 20, or FA 21. For mixture IL-9.5FG, the fine aggregate fraction shall consist of at least 67 percent manufactured sand meeting FA 20 gradation. The manufactured sand shall be stone sand, slag sand, steel slag sand, or combinations thereof."

Mixture Design. Add the following to the table in Article 1030.04(a)(1):

"High ESAL, MIXTURE COMPOSITION (% PASSING) 1/		
Sieve	IL-9.5	-G
Size	min	max
1 1/2 in (37.5 mm)		
1 in. (25 mm)		
3/4 in. (19 mm)		
1/2 in. (12.5 mm)		100
3/8 in. (9.5 mm)	90	100
#4 (4.75 mm)	604/	754/
#8 (2.36 mm)	454/	60 <sup>47</sup>
#16 (1.18 mm)	25	40
#30 (600 μm)	15	30
#50 (300 μm)	8	15
#100 (150 μm)	6	10
#200 (75 μm)	4	6.5
Ratio Dust/Asphalt Binder		1.0

4/ When used as level binder placed less than 1 in. (25 mm) thick, the min and max percent passing shall each be increased 5%.

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

1	"VOLUMETRIC REQUIREMENTS High ESAL				
Voids in the Mineral Aggregate (VMA), % minimum			Voids Filled with Asphalt Binder (VFA),		
N <sub>design</sub>	IL-25.0	IL-19.0	IL-12.5	IL-9.5	%
50					65 - 78
70	12.0	13.0	14.0	15 <sup>1/</sup>	
90	12.0	13.0	14.0	15	65 - 75 <sup>2/</sup>
105					

- 1/ The VMA for IL-9.5FG shall be a minimum of 15.0 percent.
- 2/ The VFA range for IL-9.5FG shall be 65 78 percent."

Quality Control/Quality Assurance (QC/QA). Revise the second table in Article 1030.05(d)(4) to read:

DENSITY CONTROL LIMITS			
Mixture Composition		Parameter	Individual Test <sup>3/</sup>
	Lifts < 1.25 in. (32 mm)	N <sub>design</sub> 50 - 105	91.0 - 97.0% <sup>2/</sup>
IL-9.5FG	Lifts ≥ 1.25 in. (32 mm)	N <sub>design</sub> 50 - 105	93.0 - 97.0%
IL-9.5, IL-12.5		N <sub>design</sub> ≥ 90	92.0 – 96.0 %
IL-9.5, IL-9.5L, IL-12.5		N <sub>design</sub> < 90	92.5 – 97.4 %
IL-19.0, IL-25.0		N <sub>design</sub> ≥ 90	93.0 – 96.0 %
IL-19.0, IL-19.0L, IL-25.0		N <sub>design</sub> < 90	93.0 – 97.4 %
All Other		$N_{\text{design}} = 30$	93.0 1/ - 97.4 %

- 1/ 92.0 % when placed as first lift on an unimproved subgrade.
- 2/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.
- 3/ Bulk Specific Gravity and Density that are determined using coated samples must be in accordance with ASTM 1188-96.

#### CONSTRUCTION REQUIREMENTS

<u>Leveling Binder</u>. Revise the table and second paragraph of Article 406.05(c) of the Standard Specifications to read:

"Leveling Binder	
Nominal, Compacted, Leveling Binder Thickness, in. (mm)	Mixture Composition
≤ 1 1/4 (32)	IL-9.5, IL-9.5 FG, or IL-9.5L
> 1 1/4 to 2 (32 to 50)	IL-9.5, IL-9.5FG, IL-9.5L, or IL-12.5

The density requirements of Article 1030.05(d)(4) shall apply for leveling binder, machine method, when the nominal, compacted thickness is: 3/4 in. (19 mm) or greater for IL-9.5FG mixtures, 1 1/4 in. (32 mm) or greater for IL-9.5 and IL-9.5L mixtures, and 1 1/2 in. (38 mm) or greater for IL-12.5 mixtures."

Compaction. Revise 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
Level Binder: (When the density requirements of Article 406.05(c) do not apply.)	P 3/		VS, P 3/, TB, TF, 3W	To the satisfaction of the Engineer.
Level Binder: (When placed at ≤ 1 ¼ (32 mm) and density requirements apply.)	TB, 3W	P 3/	VS, TB, TF	As specified in Articles: 1030.05(d)(3), (d)(4), and (d)(7).

Binder and Surface 1/ (When the density requirements of Article 406.05(c) apply.)	VD, P 3/, TB, 3W	P 3/	VS, TB, TF	As specified in Articles: 1030.05(d)(3), (d)(4), and (d)(7).
Bridge Decks 2/	ТВ		TF	As specified in Articles: 582.05 and 582.06.

- 1/ If the average delivery at the job site is 85 ton/hr (75 metric ton/hr) or less, any roller combination may be used provided it includes a steel wheeled roller and the required density and smoothness is obtained.
- 2/ One TB may be used for both breakdown and final rolling on bridge decks 300 ft (90 m) or less in length, except when the air temperature is less than 60 °F (15 °C).
- 3/ A vibratory roller (VD) may be used in lieu of the pneumatic-tired roller on mixtures containing polymer modified asphalt binder.

<u>Basis of Payment</u>. Add the following two paragraphs after the third paragraph of Article 406.14 of the Standard Specifications:

"Mixture IL-9.5FG will be paid for at the contract unit price per ton (metric ton) for LEVELING BINDER (HAND METHOD), IL-9.5FG, of the Ndesign specified; LEVELING BINDER (MACHINE METHOD), IL-9.5FG, of the Ndesign specified; or HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, of the Ndesign specified.

Mixture IL-9.5FG in which polymer modified asphalt binders are required will be paid for at the contract unit price per ton (metric ton) for POLYMERIZED LEVELING BINDER (HAND METHOD), IL-9.5FG, of the Ndesign specified; POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-9.5FG, of the Ndesign specified; or POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, of the Ndesign specified."

## 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.

liability insurance policy in accordance with Article 107.27:	S
entities listed above and their officers, employees, and agents shall be indemnified and makes in accordance with Article 107.26.	d

## State of Illinois DEPARTMENT OF TRANSPORTATION Bureau of Local Roads and Streets

## SPECIAL PROVISION FOR PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL)

Effective May 12, 1964 Revised January 2, 2007

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

All work shall be according to Section 420 and applicable provisions of Section 606 except as follows:

#### 420.01 <u>Description</u>. Revise Article 420.01 to read:

"Description. This work shall consist of a pavement with an integral concrete curb composed of portland cement concrete with or without reinforcement, constructed on a prepared subgrade, or subbase, with or without forms."

#### 420.03 Equipment. The following equipment will not be required:

- (c) Mechanical Concrete Spreader
- (e) Mechanical Longitudinal Float

Add the following paragraph to this Article:

"The integral concrete curb shall be formed with a moving finishing template or "mule" of a design approved by the Engineer. The template may be either a part of or separate from the pavement finishing machine and shall be designed so as to produce uniform curb of the exact dimensions required by the plans. It shall incorporate a means of consolidation of the concrete in the curb either by hand spreading or other method approved by the Engineer. If separate from the pavement finishing machine, the template shall be so designed as to cause a minimum displacement of the plastic pavement concrete.

The subgrade template shall be of a design approved by the Engineer and shall be capable of accurately indicating high and low spots in the subgrade with relation to the side forms."

420.04 <u>Preparation of Subgrade or Subbase</u>. Revise the third paragraph of Article 301.06 to read:

"The subgrade shall be brought to true shape by means of a subgrade planer, subgrade machine, and/or other methods approved by the Engineer according to the following:"

Add the following subparagraph (c) to Article 301.07:

"(c) Other methods when approved by the Engineer."

#### 420.06 Forms and Form Setting. Add the following paragraph to Article 420.06:

"Forms for the integral concrete curb with a base width less than the height may be used provided they are stable while the finishing equipment is operated upon them and do not settle under the weight of the finishing machine. If additional form height is added to accommodate the curb template after the passage of the pavement finishing equipment, the form arrangement shall meet with the approval of the Engineer.

#### 420.07 Placing. Add the following paragraphs to Article 420.07:

"An integral concrete curb shall be cast monolithically with the pavement. It shall be formed either as a part of, or immediately following, the placing of the concrete pavement or by other methods approved by the Department.

When the curb is formed in a separate operation from the pavement, it shall be placed immediately following the longitudinal floating operation. Curb concrete shall be thoroughly rodded or spaded into the surface of the pavement concrete while the latter is still in a completely plastic state."

#### 420.05 Joints. Add the following to subparagraph (a) and (b) of Article 420.05:

"Longitudinal construction joints conforming to the details shown on the plans will be permitted at any longitudinal joint location."

Add the following paragraph to subparagraph (c)(2) of this Article:

"The requirement for load transfer assemblies will be as shown on the plans."

Revise subparagraph (e) of this Article to read:

"Transverse Construction Joints. Transverse construction joints shall be constructed in accordance with the details shown on the plans. Transverse construction joints that occur at regular construction joints shall be keyed but not tied, and the thickness of the pavement for a distance of 600 mm (2 feet) in each direction from the joint shall be not less than 200 mm (8 inch). Joints that the contractor makes within the limits of a contraction panel shall be tied with deformed tiebars."

Add the following subparagraph (f) to this Article:

"Integral Concrete Curb Contraction Joint. Contraction joints shall be constructed in the curb in prolongation of the joints in the pavement and shall be constructed in accordance with the plans or as directed by the Engineer."

### 420.09 <u>Strike Off, Consolidation, and Finishing, Longitudinal Floating, Straitedging, Edging, and Final Finish</u>.

Revise the first sentence of subparagraph (b)(3) of this Article to read:

"This method may be used when approved by the Engineer."

420.19 <u>Method of Measurement</u>. Revise the first paragraph of subparagraph (b) of Article 420.19 to read:

"Portland cement concrete pavement (special) will be measured in place and the area computed in square meters (square yards) completed and accepted. The width for measurement shall be the width from the outsides of the completed pavement, including integral curb when required, as shown on the plans or as directed by the Engineer."

#### 420.20 Basis of Payment. Revise the first paragraph of Article 420.23 to read:

"This work will be paid for at the contract unit prices per square meter (square yard) for PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL), PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL) WITH INTEGRAL CURB, HIGH EARLY STRENGTH PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL), HIGH EARLY STRENGTH PORTLAND CEMENT CONCRETE PAVEMENT (SPECIAL), WITH INTEGRAL CURB of the thickness specified; and at the contract unit price per square meter (square yard) for PAVEMENT FABRIC."

#### Article 1103.13 Finishing Machine. Revise Article 1103.13 to read:

"The finishing machine shall be of a type approved by the Engineer, shall be selfpropelled and shall be capable of striking off, consolidating and finishing concrete of the consistency required by the specifications to the proper crown and grade."

# Department of Transportation Bureau of Local Roads and Streets SPECIAL PROVISION FOR CONSTRUCTION AND MAINTENANCE SIGNS

State of Illinois

Effective: January 1, 2004 Revised: June 1, 2007

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

#### 701.14. Signs. Add the following paragraph to Article 701.14:

All warning signs shall have minimum dimensions of 1200 mm x 1200 mm (48" x 48") and have a black legend on a fluorescent orange reflectorized background, meeting, as a minimum, Type AP reflectivity requirements of Table 1091-2 in Article 1091.02.

#### ADJUSTING FRAMES AND GRATES (BDE)

Effective: April 1, 2017

Add the following to Article 602.02 of the Standard Specifications:

"(s) High Density Expanded Polystyrene Adjusting Rings	
with Polyurea Coating (Note 4)	1043.04
(t) Expanded Polypropylene (EPP) Adjusting Rings (Note 5)	1043.05

Note 4. High density expanded polystyrene adjusting rings with polyurea coating shall meet the design load requirements of AASHTO HS20/25. The rings may be used to adjust the frames and grates of drainage and utility structures up to a maximum of 6 in. (150 mm). They shall be installed and sealed underneath the frames according to the manufacturer's specifications.

Note 5. Riser rings fabricated from EPP may be used to adjust the frames and grates of drainage and utility structures up to a maximum of 6 in. (150 mm). An adhesive meeting ASTM C 920, Type S, Grade N5, Class 25 shall be used with EPP adjustment rings. The top ring of the adjustment stack shall be a finish ring with grooves on the lower surface and flat upper surface. The joints between all manhole adjustment rings and the frame and cover shall be sealed using the approved adhesive. In lieu of the use of an adhesive, an internal or external mechanical frame-chimney seal may be used for watertight installation. EPP adjustment rings shall not be used with heat shrinkable infiltration barriers."

Add the following to Section 1043 of the Standard Specifications:

"1043.04 High Density Expanded Polystyrene Adjusting Rings with Polyurea Coating. High density expanded polystyrene adjustment rings with polyurea coating shall be designed and tested to meet or exceed an HS25 wheel load according to the AASHTO Standard Specifications for Highway Bridges (AASHTO M306 HS-25). The raw material suppliers shall provide certifications of quality or testing using the following ASTM standards, and upon request, certify that only virgin material was used in the manufacturing of the expanded polystyrene rings.

Dhysical Branerty	Toot Standard	Value		
Physical Property	Test Standard	3.0 lb/cu ft	4.5 lb/cu ft	
Compression Resistance	ASTM D 1621			
at 10% deformation		50 - 70	70 - 90	
at 5% deformation		45 - 60	60 - 80	
at 2% deformation		15 - 20	20 - 40	
Flexural Strength	ASTM D 790	90 - 120	130 - 200	
Water Absorption	ASTM D 570	2.0%	1.7%	
Coefficient of Linear Expansion	ASTM D 696	2.70E-06 in./in./ºF	2.80E-06 in./in./ºF	
Sheer Strength	ASTM D 732	55	80	

Tensile Strength	ASTM D 1623	70 - 90	130 - 140
Water Vapor Transmission	ASTM C 355	0.82 - 0.86	perm – in.

High density expanded polystyrene adjustment rings with polyurea coating shall have no void areas, cracks, or tears. The actual diameter or length shall not vary more than 0.125 in. (3 mm) from the specified diameter or length. Variations in height are limited to  $\pm$  0.063 in. ( $\pm$  1.6 mm). Variations shall not exceed 0.25 in. (6 mm) from flat (dish, bow, or convoluting edge) or 0.125 in. (3 mm) for bulges or dips in the surface.

1043.05 Expanded Polypropylene (EPP) Adjusting Rings. The EPP adjusting rings shall be manufactured using a high compression molding process to produce a minimum finished density of 7.5 lb/cu ft (120 g/l). The EPP rings shall be made of materials meeting ASTM D 3575 and ASTM D 4819-13. The grade adjustments shall be designed and tested according to the AASHTO Standard Specifications for Highway Bridges (AASHTO M 306 HS-25).

Grade rings shall contain upper and lower keyways (tongue and groove) for proper vertical alignment and sealing. The top ring, for use directly beneath the cast iron frame, shall have keyways (grooves) on the lower surface with a flat upper surface.

Adhesive or sealant used for watertight installation of the manhole grade adjustment rings shall meet ASTM C 920, Type S, Grade NS, Class 25, Uses NT, T, M, G, A, and O.

EPP adjustment rings shall have no void areas, cracks, or tears. The actual diameter or length shall not vary more than 0.125 in. (3 mm) from the specified diameter or length. Variations in height are limited to  $\pm$  0.063 in.  $(\pm$  1.6 mm). Variations shall not exceed 0.25 in. (6 mm) from flat (dish, bow, or convoluting edge) or 0.125 in. (3 mm) for bulges or dips in the surface."

#### **BUTT JOINTS (BDE)**

Effective: July 1, 2016

Add the following to Article 406.08 of the Standard Specifications.

"(c) Temporary Plastic Ramps. Temporary plastic ramps shall be made of high density polyethylene meeting the properties listed below. Temporary plastic ramps shall only be used on roadways with permanent posted speeds of 55 mph or less. The ramps shall have a minimum taper rate of 1:30 (V:H). The leading edge of the plastic ramp shall have a maximum thickness of 1/4 in. (6 mm) and the trailing edge shall match the height of the adjacent pavement ± 1/4 in. (± 6 mm).

The ramp will be accepted by certification. The Contractor shall furnish a certification from the manufacturer stating the temporary plastic ramp meets the following requirements.

Physical Property	Test Method	Requirement
Melt Index	ASTM D 1238	8.2 g/10 minutes
Density	ASTM D 1505	0.965 g/cc
Tensile Strength @ Break	ASTM D 638	2223 psi (15 MPa)
Tensile Strength @ Yield	ASTM D 638	4110 psi (28 MPa)
Elongation @ Yield <sup>1/</sup> , percent	ASTM D 638	7.3 min.
Durometer Hardness, Shore D	ASTM D 2240	65
Heat Deflection Temperature, 66 psi	ASTM D 648	176 °F (80 °C)
Low Temperature Brittleness, F <sub>50</sub>	ASTM D 746	<-105 °F (<-76 °C)

#### 1/ Crosshead speed -2 in./minute

The temporary plastic ramps shall be installed according to the manufacturer's specifications and fastened with anchors meeting the manufacturer's recommendations. Temporary plastic ramps that fail to stay in place or create a traffic hazard shall be replaced immediately with temporary HMA ramps at the Contractor's expense."

#### CLASS A AND B PATCHING (BDE)

Effective: January 1, 2018

Revise the second sentence of the first paragraph of Article 442.06(a)(1) of the Standard Specifications to read:

"Patches more than 20 ft (6 m) in length, including half-lane patches, shall be tied to the adjacent pavement, portland cement concrete shoulders, and curb and gutter with No. 6 (No. 19) transverse tie bars, 24 in. (600 mm) long, embedded 8 in. (200 mm) at 36 in. (600 mm) centers according to Article 420.05(b)."

Revise the sixth paragraph of Article 442.06(a)(2) of the Standard Specifications to read:

"Patches more than 20 ft (6 m) in length shall be tied to the adjacent lane of pavement, portland cement concrete shoulders, and curb and gutter with No. 6 (No. 19) transverse tie bars, 24 in. (600 mm) long, embedded 8 in. (200 mm) at 36 in. (600 mm) centers according to Article 420.05(b)."

#### **COMPENSABLE DELAY COSTS (BDE)**

Effective: June 2, 2017

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 working day contracts the payment will be made according to Article 109.04. For completion date contracts, an adjustment will be determined as follows.

Extended Traffic Control occurs between April 1 and November 30:

ETCP Adjustment (\$) = TE x (%/100 x CUP / OCT)

Extended Traffic Control occurs between December 1 and March 31:

ETCP Adjustment (\$) = TE x 1.5 (%/100 x CUP / OCT)

Where: TE = Duration of approved time extension in calendar days.

% = Percent maintenance for the traffic control, % (see table below).

CUP = Contract unit price for the traffic control pay item in place during the delay.

OCT = Original contract time in calendar days.

Original Contract Amount	Percent Maintenance
Up to \$2,000,000	65%
\$2,000,000 to \$10,000,000	75%
\$10,000,000 to \$20,000,000	85%
Over \$20,000,000	90%

When an ETCP 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."

#### **DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)**

Effective: September 1, 2000

Revised: April 2, 2018

<u>FEDERAL OBLIGATION</u>. 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.

<u>CONTRACTOR ASSURANCE</u>. The Contractor makes the following assurance and agrees to include the assurance in each subcontract that 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 that 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 that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform <a href="2.00">2.00</a> % 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 that enough DBE participation has been obtained to meet the goal or,
- (b) The bidder documents that 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.

<u>DBE LOCATOR REFERENCES</u>. 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.

<u>BIDDING PROCEDURES</u>. Compliance with this Special Provision is required prior to the award of the contract and the failure of the low bidder to comply will render the bid not responsive.

In order to assure the timely award of the contract, the low bidder shall submit:

- (a) The bidder shall submit a DBE Utilization Plan on completed Department forms SBE 2025 and 2026.
  - (1) The final Utilization Plan must be submitted within five calendar days after the date of the letting in accordance with subsection (a)(2) of Bidding Procedures herein.

(2) To meet the five day requirement, the bidder may send the Utilization Plan electronically by scanning and sending to <a href="DOT.DBE.UP@illinois.gov">DOT.DBE.UP@illinois.gov</a> or faxing to (217) 785-1524. The subject line must include the bid Item Number and the Letting date. The Utilization Plan should be sent as one .pdf file, rather than multiple files and emails for the same Item Number. It is the responsibility of the bidder to obtain confirmation of email or fax delivery.

Alternatively, the Utilization Plan may be sent by certified mail or delivery service within the five calendar day period. If a question arises concerning the mailing date of a Utilization Plan, the mailing date will be established by the U.S. Postal Service postmark on the certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service when the Utilization Plan is received by the Department. It is the responsibility of the bidder to ensure the postmark or receipt date is affixed within the five days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Utilization Plan is to be submitted to:

Illinois Department of Transportation Bureau of Small Business Enterprises Contract Compliance Section 2300 South Dirksen Parkway, Room 319 Springfield, Illinois 62764

The Department will not accept a Utilization Plan if it does not meet the five day submittal requirement and the bid will be declared not responsive. In the event the bid is declared not responsive due to a failure to submit a Utilization Plan or failure to comply with the bidding procedures set forth herein, 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. The Department reserves the right to invite any other bidder to submit a Utilization Plan at any time for award consideration.

- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of Utilization Plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and scanned or faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:

- (1) The names and addresses of DBE firms that will participate in the contract;
- (2) A description, including pay item numbers, of the work each DBE will perform;
- (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
- (4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;
- (5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the Utilization Plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
- (6) If the contract goal is not met, evidence of good faith efforts; 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.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document that 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. The Utilization Plan will not be approved by the Department if the Utilization Plan does not document sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that 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 that 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 prime 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 subsection (c)(6) of 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 that the apparent successful 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 that it is otherwise eligible for award. If the Department determines that 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 shall include a statement of reasons for the 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 in order to cure the deficiency.
- (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217) 785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and 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 forwarded to the Department's Reconsideration Officer. Reconsideration Officer will extend an opportunity to the bidder to meet in person in order 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.

<u>CALCULATING DBE PARTICIPATION</u>. 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 prime 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) <u>NO AMENDMENT</u>. 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 submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.
- (b) <u>CHANGES TO WORK</u>. 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, than a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

- (c) <u>SUBCONTRACT</u>. The Contractor must provide DBE subcontracts to IDOT 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) <u>ALTERNATIVE WORK METHODS</u>. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractorinitiated 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) That 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) That the DBE is aware that 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) That 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 prime contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the prime 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) You have determined that the listed DBE subcontractor is not a responsible contractor;
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides to you written notice 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 prime Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime Contractor can self-perform the work for which the DBE contractor was engaged or so that the prime 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 shall 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 thirty 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 that 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) <u>ENFORCEMENT</u>. 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) <u>RECONSIDERATION</u>. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor my 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.

#### **DOWEL BAR INSERTER (BDE)**

Effective: January 1, 2017 Revised: January 1, 2018

Add the following to Article 420.03 of the Standard Specifications.

"(I) Mechanical Dowel Bar Inserter ......1103.20"

Revise the first paragraph of Article 420.05(b)(1) of the Supplemental Specifications to read:

"Preformed or Drilled Holes. If applicable, the tie bars shall be installed after the dowel bars have been tested with the MIT Scan-2 device according to Article 420.05(c)(2)b.2. The tie bars shall be installed with a nonshrink grout or chemical adhesive providing a minimum pull-out strength as follows."

Revise Article 420.05(c) of the Standard Specifications to read:

"(c) Transverse Contraction Joints. Transverse contraction joints shall consist of planes of weakness created by sawing grooves in the surface of the pavement and shall include load transfer devices consisting of dowel bars. Transverse contraction joints shall be according to the following."

Revise Article 420.05(c)(2) of the Standard Specifications to read:

- "(2) Dowel Bars. Dowel Bars shall be installed parallel to the centerline of the pavement and parallel to the proposed pavement surface. Installation shall be according to one of the following methods.
  - a. Dowel Bar Assemblies. The assembly shall act as a rigid unit with each component securely held in position relative to the other members of the assembly. The entire assembly shall be held securely in place by means of nails which shall penetrate the stabilized subbase. At least ten nails shall be used for each 10, 11, or 12 ft (3, 3.3, or 3.6 m) section of assembly.

Metal stakes shall be used instead of nails, with soil or granular subbase. The stakes shall loop over or attach to the top parallel spacer bar of the assembly and penetrate the subgrade or subbase at least 12 in. (300 mm).

At the location of each dowel bar assembly, the subgrade or subbase shall be reshaped and re-tamped when necessary.

Prior to placing concrete, any deviation of the dowel bars from the correct horizontal or vertical alignment (horizontal skew or vertical tilt) greater than 3/8 in. in 12 in (9 mm in 300 mm) shall be corrected and a light coating of oil shall be uniformly applied to all dowel bars.

Care shall be exercised in depositing the concrete at the dowel bar assemblies so the horizontal and vertical alignment will be retained.

b. Dowel Bar Insertion. The dowel bars may be placed in the pavement slab with a mechanical dowel bar inserter (DBI) attached to a formless paver for pavements ≥ 7.0 in. (175 mm) in thickness. A light coating of oil shall be uniformly applied to all dowel bars.

The DBI shall insert the dowel bars with vibration into the plastic concrete after the concrete has been struck off and consolidated without deformation of the slab. After the bars have been inserted, the concrete shall be refinished and no voids shall exist around the dowel bars. The forward movement of the paver shall not be interrupted by the inserting of the dowel bars.

The location of each row of dowel bars shall be marked in a manner to facilitate where to insert the bars, and where to saw the transverse joint.

- 1. Placement Tolerances for Dowel Bars. The DBI shall place the dowel bars in the concrete pavement within the following tolerances.
  - (a.)Longitudinal Translation (Mislocation). Longitudinal translation (mislocation) shall be defined as the position of the center of the dowel bar along the longitudinal axis, in relation to the sawed joint.

The quality control tolerance for longitudinal translation shall not exceed 2.0 in (50 mm). If this tolerance is exceeded, adjustments shall be made to the paving operation.

Any joint having two or more dowel bars with an embedment length less than 4.0 in. (100 mm) within 12 in. (300 mm) of the same wheelpath will be considered unacceptable. The left and right wheelpaths shall be determined by excluding the middle 2.5 ft (0.8 m) of the pavement lane, and by excluding the outer 1.0 ft (0.3 m) measured from each pavement lane edge. Any joint having an average dowel bar embedment length less than 5.25 in. (130 mm) will also be considered unacceptable. Embedment length shall be defined as the length of dowel bar embedded on the short side of the sawed joint. An unacceptable joint shall be replaced with a minimum of 6 ft (1.8 m) of pavement centered over the joint according to Section 442 for Class B patches.

(b.) Horizontal Translation (Mislocation). Horizontal translation (mislocation) shall be defined as the difference in the actual dowel bar location parallel to the longitudinal or edge joint from its theoretical position as shown on the plans.

The quality control tolerance for horizontal translation shall not exceed 2.0 in. (50 mm). If this tolerance is exceeded, adjustments shall be made to the paving operation.

Any joint having a dowel bar with a translation greater than 4.0 in. (100 mm) will be considered unacceptable, but may remain in place unless the Engineer determines the joint will not function. If the joint is unable to remain in place, the joint shall be replaced with a minimum of 6 ft (1.8 m) of pavement centered over the joint according to Section 442 for Class B patches.

(c.) Vertical Translation (Mislocation). Vertical translation (mislocation) shall be defined as the difference in the vertical position of the dowel bar relative to the theoretical midpoint of the slab.

The quality control tolerance for vertical translation shall be as shown in the following table. If these tolerances are exceeded, adjustments shall be made to the paving operation.

	Dowel Bar Diameter	Vertical	Vertical
Pavement Thickness		Translation	Translation
		Tolerance	Tolerance
		Above	Below
		Midpoint	Midpoint
≥7 in. to <8 in.	1.25 in.	0.25 in.	0.5 in.
(≥175 mm to <200 mm)	(31 mm)	(6 mm)	(13 mm)
≥8 in. to <9 in.	1.50 in.	0.25 in.	0.5 in.
(≥200 mm to <225 mm)	(38 mm)	(6 mm)	(13 mm)
≥9 in. to <10 in.	1.50 in.	0.75 in.	0.75 in.
(≥225 mm to <250 mm)	(38 mm)	(19 mm)	(19 mm)
≥10 in.	1.50 in.	0.75 in.	1.0 in.
(≥250 mm)	(38 mm)	(19 mm)	(25 mm)

Any joint having a dowel bar with top concrete cover less than T/3, where T is slab thickness, will be considered unacceptable. Any joint having 2 or more dowel bars with bottom concrete cover less than 2.0 in. (50 mm) will also be considered unacceptable. An unacceptable joint shall be replaced with a minimum of 6 ft (1.8 m) of pavement according to Section 442 for Class B patches.

(d.) Vertical Tilt or Horizontal Skew (Misalignment). Vertical tilt or horizontal skew (misalignment) shall be defined as the difference in position of the dowel bar ends with respect to each other. Vertical tilt is measured in the vertical axis whereas horizontal skew is measured in the horizontal axis. Misalignment shall be measured in terms of a joint score. The joint score shall be defined as the degree of misalignment evaluated for a single transverse joint for each lane of pavement. The joint score shall be determined as follows:

Joint Score = 
$$\left(1 + \left(\frac{x}{x-n}\right) \sum_{i=1}^{x-n} W_i\right)$$

where:

 $W_i$  = weighting factor (Table 1) for dowel i

x = number of dowels in a single joint

n = number of dowels excluded from the joint score calculation due to measurement interference

Single Dowel Misalignment – The degree of misalignment applicable to a single dowel bar, calculated as:

Single Dowel Misalignment =  $\sqrt{(Horizontal\ Skew)^2 + (Vertical\ Tilt)^2}$ 

Table 1. Weighting Factors in Joint Score Determination		
Single Dowel Bar Misalignment (SDM)	W, Weighting Factor	
SDM ≤ 0.6 in. (15 mm)	0	
0.6 in. (15 mm) < SDM ≤ 0.8 in. (20 mm)	2	
0.8 in. (20 mm) < SDM ≤ 1 in. (25 mm)	4	
1 in. (25 mm) < SDM ≤ 1.5 in. (38 mm)	5	
1.5 in. (38 mm) < SDM	10	

The quality control tolerance for vertical tilt or horizontal skew shall not exceed 0.6 in. (15 mm). If the tolerance is exceeded for either one, adjustments shall be made to the paving operation.

Any joint having a dowel bar with a vertical tilt or horizontal skew greater than 1.5 in. (38 mm) shall be cut. If more than one dowel bar is required to be cut in the joint, the joint will be considered unacceptable and shall be replaced with a minimum of 6 ft (1.8 m) of pavement centered over the joint according to Section 442 for Class B patches.

Single dowel bar misalignment shall be controlled to provide the joint scores shown in the following table.

Number of Dowel Bars in the Joint	Maximum Joint Score
< 5	4
≥ 5 but ≤ 9	8
> 9	12

A joint score greater than the specified maximum will be considered locked. Three consecutive joints with a score greater than the specified maximum total score will all be considered unacceptable.

Three consecutive locked joints shall be corrected by selecting one joint and cutting a dowel bar. Preference shall be given to cutting a dowel bar within the middle 2.5 ft (0.8 m) of the pavement lane to avoid the wheelpaths. If none of the three locked joints will have a joint score less than or equal to the specified maximum after selecting one dowel bar to cut, one of the joints shall be replaced with a minimum of 6 ft (1.8 m) of pavement centered over the joint according to Section 442 for Class B patches.

- (e.) For unacceptable work, the Contractor may propose alternative repairs for consideration by the Engineer.
- Testing of Dowel Bar Placement. The placement of the dowel bars shall be tested within 24 hours of paving with a calibrated MIT Scan-2 device according to "Use of Magnetic Tomography Technology to Evaluate Dowel Placement" (Publication No. FHWA-IF-06-006) by the Federal Highway Administration.

A trained operator shall perform the testing, and all testing shall be performed in the presence of the Engineer. The device shall be calibrated to the type and size dowel bar used in the work according to the manufacturer's instructions. Calibration documentation shall be provided to the Engineer prior to construction. The device shall be recalibrated and/or validate readings as required by the Engineer. The device may be utilized as a process control and make necessary adjustments to ensure the dowel bars are placed in the correct location.

- (a.)Test Section. Prior to start of production paving, a test section consisting of 30 transverse joints shall be constructed. The test section may be performed on the actual pavement, but production paving shall not begin until an acceptable test section has been constructed. The test section will be considered acceptable when all of the following are met:
  - (1.) 90 percent of the dowel bars meet the quality control tolerance for longitudinal, horizontal, or vertical translation (mislocation);
  - (2.) 90 percent of the dowel bars meet the quality control tolerance for vertical tilt or horizontal skew deviation (misalignment); and
  - (3.) none of the joints are considered unacceptable prior to a corrective measure for mislocation or misalignment.

If the test section fails, another test section consisting of 30 joints shall be constructed.

The test section requirement may be waived by the Engineer if the Contractor has constructed an acceptable test section and successfully used the DBI on a Department contract within the same calendar year.

(b.) Production Paving. After the test section is approved, production paving may begin. The mislocation and misalignment of each dowel bar for the first ten joints constructed, and every tenth joint thereafter, shall be tested.

If two consecutive days of paving result in 5 percent or more of the joints on each day being unacceptable prior to a corrective measure, production paving shall be discontinued and a new test section shall be constructed.

If any joint is found to be unacceptable prior to a corrective measure, testing of additional joints on each side of the unacceptable joint shall be performed until acceptable joints are found.

- (c.) Test Report. Test reports shall be provided to the Engineer within two working days of completing each day's testing. The test report shall include the following.
  - (1.) Contract number, placement date, county-route-section, direction of traffic, scan date, Contractor, and name of individual performing the tests.
  - (2.) Provide the standard report generated from the on-board printer of the imaging technology used for every dowel and joint measured.
  - (3.) For every dowel measured, provide the joint identification number, lane number and station, dowel bar number or x-location, direction of testing and reference joint location/edge location, longitudinal translation, horizontal translation, vertical translation, vertical tilt, and horizontal skew.
  - (4.) Identify each dowel bar with a maximum longitudinal, horizontal, or vertical translation that has been exceeded. Identify each dowel bar with a maximum vertical tilt or horizontal skew deviation that has been exceeded.
  - (5.) Joint Score Details: Provide the joint identification number, lane number, station, and calculated joint score for each joint.

- (6.)Locked Joint Identification: Identify each joint where the maximum joint score is exceeded.
- (d.) Exclusions. Exclude the following from dowel bar mislocation and misalignment measurements.
  - (1.) Transverse construction joints (headers).
  - (2.) Dowel bars within 24 in. (610 mm) of metallic manholes, inlets, metallic castings, or other nearby or underlying steel reinforced objects.
  - (3.) The outside dowel bar when tie bars are installed with mechanical equipment in fresh concrete. For tie bar installations involving preformed or drilled holes, installation of the tie bar shall be performed after testing with the MIT Scan-2 device.
  - (4.) Joints located directly under high voltage power lines.
  - (5.) Subject to the approval of the Engineer, any other contributors to magnetic interference.
- (e.) Deficiency Deduction. When the Contractor has cut 25 dowel bars to correct unacceptable joints, the Contractor shall be liable and shall pay to the Department a deficiency deduction of \$500.00 for the cost of the bars. Thereafter, an additional deficiency deduction of \$20.00 for each additional bar cut will be assessed."

Add the following to Section 1103 of the Standard Specifications.

"1103.20 Mechanical Dowel Bar Inserter. The mechanical dowel bar inserter (DBI) shall be self-contained and supported on the formless paver with the ability to move separately from the paver. The DBI shall be equipped with insertion forks along with any other devices necessary for finishing the concrete the full width of the pavement. The insertion forks shall have the ability to vibrate at a minimum frequency of 3000 VPM."

#### **EQUIPMENT PARKING AND STORAGE (BDE)**

Effective: November 1, 2017

Replace the first paragraph of Article 701.11 of the Standard Specifications with the following.

"701.11 Equipment Parking and Storage. During working hours, all vehicles and/or nonoperating equipment which are parked, two hours or less, shall be parked at least 8 ft (2.5 m) from the open traffic lane. For other periods of time during working and for all nonworking hours, all vehicles, materials, and equipment shall be parked or stored as follows.

- (a) When the project has adequate right-of-way, vehicles, materials, and equipment shall be located a minimum of 30 ft (9 m) from the pavement.
- (b) When adequate right-of-way does not exist, vehicles, materials, and equipment shall be located a minimum of 15 ft (4.5 m) from the edge of any pavement open to traffic.
- (c) Behind temporary concrete barrier, vehicles, materials, and equipment shall be located a minimum of 24 in. (600 mm) behind free standing barrier or a minimum of 6 in. (150 mm) behind barrier that is either pinned or restrained according to Article 704.04. The 24 in. or 6 in. measurement shall be from the base of the non-traffic side of the barrier.
- (d) Behind other man-made or natural barriers meeting the approval of the Engineer."

#### HOT-MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE)

Effective: January 1, 2010 Revised: April 1, 2016

<u>Description</u>. This work shall consist of testing the density of longitudinal joints as part of the quality control/quality assurance (QC/QA) of hot-mix asphalt (HMA). Work shall be according to Section 1030 of the Standard Specifications except as follows.

Quality Control/Quality Assurance (QC/QA). Delete the second and third sentence of the third paragraph of Article 1030.05(d)(3) of the Standard Specifications.

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

"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."

Revise the Density Control Limits table in Article 1030.05(d)(4) of the Standard Specifications to read:

"Mixture Composition	Parameter	Individual Test (includes confined edges)	Unconfined Edge Joint Density Minimum
IL-4.75	Ndesign = 50	93.0 – 97.4% <sup>1/</sup>	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 <sup>2/</sup> – 97.4%	90.0%
SMA	Ndesign = 50 & 80	93.5 - 97.4%	91.0%"

## HOT-MIX ASPHALT - TACK COAT (BDE)

Effective: November 1, 2016

Revise Article 1032.06(a) of the Standard Specifications to read:

"(a) Anionic Emulsified Asphalt. Anionic emulsified asphalts shall be according to AASHTO M 140. SS-1h emulsions used as a tack coat shall have the cement mixing test waived."

## **LIGHTS ON BARRICADES (BDE)**

Effective: January 1, 2018

Revise Article 701.16 of the Standard Specifications to read:

"**701.16 Lights.** Lights shall be used on devices as required in the plans, the traffic control plan, and the following table.

Circumstance	Lights Required	
Daylight operations	None	
First two warning signs on each approach to the work involving a nighttime lane closure and "ROUGH GROOVED SURFACE" (W8-I107) signs	Flashing mono-directional lights	
Devices delineating isolated obstacles, excavations, or hazards at night (Does not apply to patching)	Flashing bi-directional lights	
Devices delineating obstacles, excavations, or hazards exceeding 100 ft (30 m) in length at night (Does not apply to widening)	Steady burn bi-directional lights	
Channelizing devices for nighttime lane closures on two-lane roads	None	
Channelizing devices for nighttime lane closures on multi-lane roads	None	
Channelizing devices for nighttime lane closures on multi-lane roads separating opposing directions of traffic	None	
Channelizing devices for nighttime along lane shifts on multilane roads	Steady burn mono-directional lights	
Channelizing devices for night time along lane shifts on two lane roads	Steady burn bi-directional lights	
Devices in nighttime lane closure tapers on Standards 701316 and 701321	Steady burn bi-directional lights	
Devices in nighttime lane closure tapers	Steady burn mono-directional lights	
Devices delineating a widening trench	None	
Devices delineating patches at night on roadways with an ADT less than 25,000	None	
Devices delineating patches at night on roadways with an ADT of 25,000 or more	None	

Batteries for the lights shall be replaced on a group basis at such times as may be specified by the Engineer."

Delete the fourth sentence of the first paragraph of Article 701.17(c)(2) of the Standard Specifications.

Revise the first paragraph of Article 603.07 of the Standard Specifications to read:

"603.07 Protection Under Traffic. After the casting has been adjusted and Class SI concrete has been placed, the work shall be protected by a barricade for at least 72 hours."

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

Effective: January 1, 2018 Revised: March 2, 2018

<u>Description</u>. Manholes, valve vaults, and flat slab tops manufactured according to the current or previous Highway Standards listed below will be accepted on this contract:

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

When manufacturing to the current standards, the following revisions to the Standard Specifications shall apply:

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

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:

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

Add the following paragraph after the first paragraph of Article 602.07 of the Standard Specifications:

"Threaded rods connecting precast sections shall be brought to a snug tight condition."

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 according to AASHTO M 199 (M 199M), except the minimum wall thickness shall be 3 in. (75 mm). 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."

#### PAVEMENT MARKING REMOVAL (BDE)

Effective: July 1, 2016

Revise Article 783.02 of the Standard Specifications to read:

"783.02 Equipment. Equipment shall be according to the following.

Note 1. Grinding equipment shall be approved by the Engineer."

Revise the first paragraph of Article 783.03 of the Standard Specifications to read:

"783.03 Removal of Conflicting Markings. Existing pavement markings that conflict with revised traffic patterns shall be removed. If darkness or inclement weather prohibits the removal operations, such operations shall be resumed the next morning or when weather permits. In the event of removal equipment failure, such equipment shall be repaired, replaced, or leased so removal operations can be resumed within 24 hours."

Revise the first and second sentences of the first paragraph of Article 783.03(a) of the Standard Specifications to read:

"The existing pavement markings shall be removed by the method specified and in a manner that does not materially damage the surface or texture of the pavement or surfacing. 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."

Revise the first paragraph of Article 783.04 of the Standard Specifications to read:

"**783.04 Cleaning.** The roadway surface shall be cleaned of debris or any other deleterious material by the use of compressed air or water blast."

Revise the first paragraph of Article 783.06 of the Standard Specifications to read:

"783.06 Basis of Payment. This work will be paid for at the contract unit price per each for RAISED REFLECTIVE PAVEMENT MARKER REMOVAL, or at the contract unit price per square foot (square meter) for PAVEMENT MARKING REMOVAL – GRINDING and/or PAVEMENT MARKING REMOVAL – WATER BLASTING."

Delete Article 1101.13 from the Standard Specifications.

## PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: November 2, 2017

Add the following to the end of the fourth paragraph of Article 109.11 of the Standard Specifications:

"If reasonable cause is asserted, written notice shall be provided to the applicable subcontractor and/or material supplier and the Engineer within five days of the Contractor receiving payment. The written notice shall identify the contract number, the subcontract or material purchase agreement, a detailed reason for refusal, the value of payment being withheld, and the specific remedial actions required of the subcontractor and/or material supplier so that payment can be made."

## PORTABLE CHANGEABLE MESSAGE SIGNS (BDE)

Effective: November 1, 2016

Revised: April 1, 2017

Revise the second paragraph of Article 701.20(h) of the Standard Specifications to read:

"For all other portable changeable message signs, this work will be paid for at the contract unit price per calendar day for each sign as CHANGEABLE MESSAGE SIGN."

Revise this second sentence of the first paragraph of Article 1106.02(i) of the Standard Specifications to read:

"The message panel shall be a minimum of 7 ft (2.1 m) above the edge of pavement in urban areas and a minimum of 5 ft (1.5 m) above the edge of pavement in rural areas, present a level appearance, and be capable of displaying up to eight characters in each of three lines at a time."

## PORTLAND CEMENT CONCRETE (BDE)

Effective: November 1, 2017

Revise the Air Content % of Class PP Concrete in Table 1 Classes of Concrete and Mix Design Criteria in Article 1020.04 of the Standard Specifications to read:

"TABLE 1. CLASSES OF CONCRETE AND MIX DESIGN CRITERIA		
Class of Conc.	Use	Air Content %
PP	Pavement Patching Bridge Deck Patching (10)	
	PP-1	
	PP-2 PP-3	4.0 - 8.0"
	PP-4	4.0 0.0
	PP-5	

Revise Note (4) at the end of Table 1 Classes of Concrete and Mix Design Criteria in Article 1020.04 of the Standard Specifications to read:

"(4) For all classes of concrete, the maximum slump may be increased to 7 in (175 mm) when a high range water-reducing admixture is used. For Class SC, the maximum slump may be increased to 8 in. (200 mm). For Class PS, the maximum slump may be increased to 8 1/2 in. (215 mm) if the high range water-reducing admixture is the polycarboxylate type."

## PORTLAND CEMENT CONCRETE SIDEWALK (BDE)

Effective: August 1, 2017

Revise the first paragraph of Article 424.12 of the Standard Specifications to read:

"424.12 Method of Measurement. This work will be measured for payment in place and the area computed in square feet (square meters). Curb ramps, including side curbs and side flares, will be measured for payment as sidewalk. No deduction will be made for detectable warnings located within the ramp."

#### PROGRESS PAYMENTS (BDE)

Effective: November 2, 2013

Revise Article 109.07(a) of the Standard Specifications to read:

"(a) Progress Payments. At least once each month, the Engineer will make a written estimate of the quantity of work performed in accordance with the contract, and the value thereof at the contract unit prices. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1000.00 will be approved for payment other than the final payment.

Progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics' Lien Act, 770 ILCS 60/23(c).

If a Contractor or subcontractor has defaulted on a loan issued under the Department's Disadvantaged Business Revolving Loan Program (20 ILCS 2705/2705-610), progress payments may be reduced pursuant to the terms of that loan agreement. In such cases, the amount of the estimate related to the work performed by the Contractor or subcontractor, in default of the loan agreement, will be offset, in whole or in part, and vouchered by the Department to the Working Capital Revolving Fund or designated escrow account. Payment for the work shall be considered as issued and received by the Contractor or subcontractor on the date of the offset voucher. Further, the amount of the offset voucher shall be a credit against the Department's obligation to pay the Contractor, the Contractor's obligation to pay the subcontractor, and the Contractor's or subcontractor's total loan indebtedness to the Department. The offset shall continue until such time as the entire loan indebtedness is satisfied. The Department will notify the Contractor and Fund Control Agent in a timely manner of such offset. The Contractor or subcontractor shall not be entitled to additional payment in consideration of the offset.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved."

#### RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

Effective: November 1, 2012 Revise: January 1, 2018

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). Reclaimed asphalt shingles (RAS). RAS is 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, as defined in Central Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Central Bureau of Materials approved processing facility 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, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. 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 District 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. All FRAP shall be fractionated prior to testing by screening into a minimum of two size fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP shall pass the sieve size specified below for the mix into which the FRAP will be incorporated.

Mixture FRAP will be used in:	Sieve Size that 100 %
	of FRAP Shall Pass
IL-19.0	1 1/2 in. (40 mm)
IL-9.5	3/4 in. (20 mm)
IL-4.75	1/2 in. (13 mm)

- (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. All 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) 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, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, 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) 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.

**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 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).
  - (2) After Stockpiling. For testing after stockpiling, the Contractor shall submit a plan for approval to the District 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 extract the other test sample according to Department procedure. 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 Central 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 1000 tons (900 metric tons) and one sample per 250 tons (225 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a  $\leq$  1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS or RAS blended with manufactured sand shall be stockpiled in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

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 Department procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

If the sampling and testing was performed at the shingle processing facility in accordance with the QC Plan, the Contractor shall obtain and make available all of the test results from start of the initial stockpile.

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

(a) 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 %
No. 4 (4.75 mm)	± 6 %
No. 8 (2.36 mm)	± 5 %
No. 16 (1.18 mm)	
No. 30 (600 µm)	± 5 %
No. 200 (75 µm)	± 2.0 %
Asphalt Binder	$\pm$ 0.4 % $^{1/}$
G <sub>mm</sub>	± 0.03

1/ The tolerance for FRAP shall be  $\pm$  0.3 %.

If more than 20 percent of the individual sieves and/or asphalt binder content tests 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 District for evaluation.

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

(b) Evaluation of RAS and RAS Blended with Manufactured Sand 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
No. 8 (2.36 mm)	± 5 %

No. 16 (1.18 mm)	± 5 %
No. 30 (600 μm)	± 4 %
No. 200 (75 μm)	± 2.0 %
Asphalt Binder Content	± 1.5 %

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, or if the percent unacceptable material exceeds 0.5 percent by weight of material retained on the # 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 District for evaluation.

#### 1031.05 Quality Designation of Aggregate in RAP/FRAP.

- (a) RAP. The aggregate quality of the RAP for homogeneous and conglomerate 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, Superpave/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, Superpave/HMA (High ESAL) binder, or (Low ESAL) IL-19.0L binder mixtures are designated as containing Class C 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 #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5000 tons (4500 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 to the District Office. The cost for this testing shall be paid by the Contractor. 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 #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 shall not exceed the amounts listed in the Max RAP/RAS ABR table listed below for the given Ndesign.

RAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures	RAP/RAS Maximum ABR %		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
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). If warm mix asphalt (WMA) technology is utilized and production temperatures do not exceed 275 °F (135 °C), the high and low virgin asphalt binder grades shall each be reduced by one grade when RAP/RAS ABR exceeds 25 percent (i.e. 26 percent RAP/RAS 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 FRAP/RAS table listed below for the given Ndesign.

FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures	FRAP/RAS Maximum ABR %		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified 3/, 4/
30	50	40	10
50	40	35	10
70	40	30	10
90	40	30	10

- 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). If warm mix asphalt (WMA) technology is utilized and production temperatures do not exceed 275 °F (135 °C), the high and low virgin asphalt binder grades shall each be reduced by one grade when FRAP/RAS ABR exceeds 25 percent (i.e. 26 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).
- 3/ For SMA the FRAP/RAS ABR shall not exceed 20 percent.
- 4/ For IL-4.75 mix the FRAP/RAS ABR shall not exceed 30 percent.

**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 results, as defined under "Testing" herein, 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.

(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.

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 feed system to remove or reduce oversized material.

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

- (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 material as a percent of the total mix to the nearest 0.1 percent.
- Aggregate and RAP/FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP/FRAP are printed in wet condition.)

#### (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 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.

- (a) 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. RAP used shall be according to the current Central Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".
- (b) 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."

## 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."

## SUBCONTRACTOR MOBILILATION PAYMENTS (BDE)

Effective: November 2, 2017

Replace the second paragraph of Article 109.12 of the Standard Specifications with the following:

"This mobilization payment shall be made at least 14 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%"

#### WARM MIX ASPHALT (BDE)

Effective: January 1, 2012 Revised: April 1, 2016

<u>Description</u>. 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.

## WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012 Revised: April 2, 2015

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 Monday through Sunday 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.

# REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- 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

 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).

- 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 nonminority 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 federallyassisted 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.
- (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 contacting 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 (<a href="https://www.epls.gov/">https://www.epls.gov/</a>), 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 (<a href="https://www.epls.gov/">https://www.epls.gov/</a>), 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

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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.