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Letting April 24, 2020

Notice to Bidders, Specifications and Proposal

Contract No. 93735
MORGAN County
Section 17-00126-00-RS (Jacksonville)
Route FAU 8172 (East State Street)
Project 1BG2-776 ()
District 6 Construction Funds

Prepared by

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Checked by

(Printed by authority of the State of Illinois)

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 24, 2020 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. 93735
   MORGAN County
   Section 17-00126-00-RS (Jacksonville)
   Project 1BG2-776 ()
   Route FAU 8172 (East State Street)
   District 6 Construction Funds

   Reconstruction of East State Street from Mauvaisterre Street to Clay Street in Jacksonville.

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

Omer Osman,
Acting Secretary

CONTRACT 93735

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2020

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 1-1-20)

SUPPLEMENTAL SPECIFICATIONS

RECURRING SPECIAL PROVISIONS

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

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:

City of Jacksonville
Morgan County
Section 17-00126-00-RS
Project 1BG2(776)

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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.

	File Name	Pg.		Special Provision Title	Effective	Revised
*	80099			Accessible Pedestrian Signals (APS)	April 1, 2003	April 1, 2020
	80274			Aggregate Subgrade Improvement	April 1, 2012	April 1, 2016
	80192			Automated Flagger Assistance Device	Jan. 1, 2008	
	80173			Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
	80246			Bituminous Surface Treatment with Fog Seal	Jan. 1, 2020	
	80241			Bridge Demolition Debris	July 1, 2009	
	5026I			Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5048I			Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5049I			Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5053I			Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
	80425			Cape Seal	Jan. 1, 2020	
	80384	62	X	Compensable Delay Costs	June 2, 2017	April 1, 2019
	80198			Completion Date (via calendar days)	April 1, 2008	
	80199			Completion Date (via calendar days) Plus Working Days	April 1, 2008	
	80293			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	66	X	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Mar. 2, 2019
	80402	76	X	Disposal Fees	Nov. 1, 2018	
	80378			Dowel Bar Inserter	Jan. 1, 2017	Jan. 1, 2018
	80405			Elastomeric Bearings	Jan. 1, 2019	
	80421	78	X	Electric Service Installation	Jan. 1, 2020	
	80415	80	X	Emulsified Asphalts	Aug. 1, 2019	
	80423			Engineer's Field Office Laboratory	Jan. 1, 2020	
	80388	83	X	Equipment Parking and Storage	Nov. 1, 2017	
	80229			Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
	80417			Geotechnical Fabric for Pipe Underdrains and French Drains	Nov. 1, 2019	
	80420			Geotextile Retaining Walls	Nov. 1, 2019	
	80304			Grooving for Recessed Pavement Markings	Nov. 1, 2012	Nov. 1, 2017
	80422			High Tension Cable Median Barrier Reflectors	Jan. 1, 2020	
	80416	84	X	Hot-Mix Asphalt – Binder and Surface Course	July 2, 2019	Nov. 1, 2019
	80398	91	X	Hot-Mix Asphalt – Longitudinal Joint Sealant	Aug. 1, 2018	Nov. 1, 2019
*	80406			Hot-Mix Asphalt – Mixture Design Verification and Production (Modified for I-FIT Data Collection)	Jan. 1, 2019	Jan. 2, 2020
	80347			Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling	Nov. 1, 2014	July 2, 2019
	80383			Hot-Mix Asphalt – Quality Control for Performance	April 1, 2017	July 2, 2019
	80411			Luminaires, LED	April 1, 2019	
	80393	95	X	Manholes, Valve Vaults, and Flat Slab Tops	Jan. 1, 2018	Mar. 1, 2019
	80045			Material Transfer Device	June 15, 1999	Aug. 1, 2014
	80418			Mechanically Stabilized Earth Retaining Walls	Nov. 1, 2019	
	80424			Micro-Surfacing and Slurry Sealing	Jan. 1, 2020	
*	80428	97	X	Mobilization	April 1, 2020	
	80165			Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
	80412			Obstruction Warning Luminaires, LED	Aug. 1, 2019	
	80349			Pavement Marking Blackout Tape	Nov. 1, 2014	April 1, 2016
	80371	98	X	Pavement Marking Removal	July 1, 2016	
	80389	99	X	Portland Cement Concrete	Nov. 1, 2017	

	File Name	Pg.		Special Provision Title	Effective	Revised
	80359			Portland Cement Concrete Bridge Deck Curing	April 1, 2015	Nov. 1, 2019
	80300			Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	April 1, 2016
	3426I			Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
	80157			Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
*	80306	100	X	Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	Jan. 2, 2020
	80407	110	X	Removal and Disposal of Regulated Substances	Jan. 1, 2019	Jan. 1, 2020
*	80419	121	X	Silt Fence, Inlet Filters, Ground Stabilization and Riprap Filter Fabric	Nov. 1, 2019	April 1, 2020
	80395			Sloped Metal End Section for Pipe Culverts	Jan. 1, 2018	
	80340			Speed Display Trailer	April 2, 2014	Jan. 1, 2017
	80127			Steel Cost Adjustment	April 2, 2014	Aug. 1, 2017
	80408			Steel Plate Beam Guardrail Manufacturing	Jan. 1, 2019	
	80413			Structural Timber	Aug. 1, 2019	
	80397	127	X	Subcontractor and DBE Payment Reporting	April 2, 2018	
	80391	128	X	Subcontractor Mobilization Payments	Nov. 2, 2017	April 1, 2019
	80317			Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	Aug. 1, 2019
	80298			Temporary Pavement Marking	April 1, 2012	April 1, 2017
	80403			Traffic Barrier Terminal, Type 1 Special	Nov. 1, 2018	
	80409	129	X	Traffic Control Devices – Cones	Jan. 1, 2019	
	80410			Traffic Spotters	Jan. 1, 2019	
	20338	130	X	Training Special Provisions	Oct. 15, 1975	
	80318			Traversable Pipe Grate for Concrete End Sections	Jan. 1, 2013	Jan. 1, 2018
*	80429			Ultra-Thin Bonded Wearing Course	April 1, 2020	
	80288	133	X	Warm Mix Asphalt	Jan. 1, 2012	April 1, 2016
	80302	135	X	Weekly DBE Trucking Reports	June 2, 2012	April 2, 2015
*	80414			Wood Fence Sight Screen	Aug. 1, 2019	April 1, 2020
*	80427			Work Zone Traffic Control Devices	Mar. 2, 2020	
	80071	136	X	Working Days	Jan. 1, 2002	

The following special provisions are in the 2020 Supplemental Specifications and Recurring Special Provisions.

File Name	Special Provision Title	New Location(s)	Effective	Revised
80404	Coarse Aggregate Quality for Micro-Surfacing and Cape Seals	Article 1004.01(b)	Jan. 1, 2019	
80392	Lights on Barricades	Articles 701.16, 701.17(c)(2) & 603.07	Jan. 1, 2018	
80336	Longitudinal Joint and Crack Patching	Check Sheet #36	April 1, 2014	April 1, 2016
80400	Mast Arm Assembly and Pole	Article 1077.03(b)	Aug. 1, 2018	
80394	Metal Flared End Section for Pipe Culverts	Articles 542.07(c) and 542.11	Jan. 1, 2018	April 1, 2018
80390	Payments to Subcontractors	Article 109.11	Nov. 2, 2017	

The following special provisions have been deleted from use.

File Name	Special Provision Title	Effective	Revised
80328	Progress Payments	Nov. 2, 2013	

City of Jacksonville
Morgan County
Section 17-00126-00-RS
Project 1BG2(776)

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", adopted April 1, 2016 the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures for Materials" in effect on the date of invitations of bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the check sheet included herein which apply to and govern the construction of Section 17-00126-00-RS Project 1BG2(776) in the City of Jacksonville, and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

DESCRIPTION OF WORK: This contract shall consist of milling or removing existing pavements, curb and gutter, sidewalk and constructing new concrete curb and gutter roadways with hot-mix asphalt surface, storm sewer, water main, concrete sidewalk, landscape/streetscape, electric, lighting, driveway pavement and other related work on East State Street and North East Street.

J.U.L.I.E.: The toll-free telephone number of Joint Utility Locating Information for Excavators is 800-892-0123 or 811.

TRAFFIC CONTROL: Traffic control shall be in accordance with the applicable sections of the standard specifications for road and bridge construction, the applicable guidelines contained in the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, these special provisions, and any special details and Highway Standards contained herein and in the plans.

Special attention is called to Article 107.09 and Sections 701 thru 703 of the Standard Specifications for Road and Bridge Construction and the following Highway Standards.

701501
701502
701801
701901

The contractor shall be responsible for the traffic control devices at all times during construction activities, and shall coordinate the items of work to keep traffic hazards and/or inconveniences to a minimum.

All advance-warning signs shall be in new or like new condition at the start of the project. All warning signs shall be 48 inches by 48 inches and have a black legend on a fluorescent orange reflectorized background.

Sign posts shall be 100 x 100 mm (4 x 4 in.) wood posts according to Article 1007.05. The use of metal posts will not be permitted.

Type III barricades and advance warning signs shall be erected at each end of the section to safeguard the public, while warning signs shall be erected notifying traffic of construction of this project. All barricades and signs required shall be furnished by the Contractor. The Type III Barricades at the Road closure shall be equipped with two type A warning lights.

The Contractor shall allow access to private property along the closed portions of the road or sidewalk where no other public way provides access. Open holes, trenches and drop offs shall be fenced and barricaded to protect local traffic and pedestrians. Flagger(s) will be required when work encroaches on the open lane(s). No Parking signs shall be erected to prohibit on-street parking within the work zone.

Traffic control and protection shall be in accordance with the standards, details and special provisions in the plans and shall be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL), which price shall be payment in full for all materials, labor and equipment required to complete this item as specified and to the satisfaction of the Engineer.

STATUS OF UTILITIES TO BE ADJUSTED

Name and Address of Utility	Type	Location	Estimated Date Relocation Completed
City of Jacksonville 200 W. Douglas Jacksonville, IL 62650	Water & Sewer	Throughout Project	During Construction
Ameren CIPS 700 Jersey Street Quincy, IL 62306	Electric (Aerial) Gas (Buried)	Throughout Project	During Construction
Frontier Communications 330 W. Beecher Jacksonville, IL 62650	Telephone	Throughout Project	During Construction
Mediacom Massey Lane Jacksonville, IL 62650	Cable TV	Throughout Project	During Construction

The above represents the best information of the Department and is only included for the convenience of the bidder. The applicable provisions of Articles 105.07 and 107.20 of the Standard Specifications for Road and Bridge Construction shall apply.

If any utility adjustment or removal has not been completed when required by the contractor's operations, the contractor should notify the Engineer in writing. A request for an extension of time will be considered to the extent the contractor's operations were affected.

EXISTING MONUMENTS, MARKERS AND STONES: This work shall include the safe removal, transportation, and off-loading of existing monuments, markers and stones to a site designated by the City of Jacksonville. Removal of existing supporting bases or platforms shall also be removed and disposed of in accordance with Section 202 of the Standard Specifications.

This work shall also include the loading, delivery, and placement of the existing monuments, markers, and stone within the project limits as shown in the plans and as directed by the Engineer after completion of the improvements. Prior to final placement, the Contractor shall install a base as used in the original construction in accordance with the applicable portions of the Standard Specifications and as directed by the Engineer.

This work in its entirety shall not be paid for separately, but considered included in the cost of EARTH EXCAVATION and includes all material, labor, or equipment necessary to complete the work to the satisfaction of the Engineer.

PRESERVING PROPERTY MARKERS: The existing property corner markers located along this section shall be protected by the Contractor. Any such monuments destroyed by the Contractor's operation shall be replaced by a Registered Land Surveyor at no additional cost to the Department.

Any expense, inconveniences, or delays caused the Contractor in complying with this Special Provision will be considered as incidental to the contract and no additional compensation will be allowed.

HAND GRADING: Grading shall be done by hand around light poles, utility poles, sign posts, shrubs, trees or other natural or man-made objects where shallow fills or cuts are adjacent to the items. The decision as to items to remain in place shall be as directed by the Engineer.

This work will not be paid for separately but shall be considered included in the cost per cubic yard for EARTH EXCAVATION and no additional compensation will be allowed.

DEBRIS: All debris of any type, large or small, encountered during any excavation shall be removed by the Contractor and disposed of at a site off the right of way.

This work will not be paid for separately, but shall be considered as included in the cost of the pay item for which the work is being completed.

SODDING: This work consists of soil preparation, fertilizer application, sodding, and maintenance as specified herein and as directed by the Engineer. All work shall be completed in accordance with Section 252 of the Standard Specifications and the following:

Submittals:

(a) The following items shall be submitted and approved prior to operations:

1. Sod source and composition
2. Photographs and/or samples of sod if requested
3. Fertilizer composition and quantity calculation
4. Products and rates for any chemical treatments necessary.

(b) The following items shall be submitted during operations:

1. Sod certificates showing source, composition and quantity of each load
2. Fertilizer certificates showing weight and fertilizer mix for each bag.

Products:

(a) Topsoil shall be loamy soil from the A horizon soil profile of local prairie-type soils; have an organic content between 6 and 10 percent; be entirely free of foreign material including construction waste, rocks and aggregate, litter and contaminating products; and have a pH between 6.0 and 8.0. At least 90 percent must pass the 2.00 mm sieve.

(b) Sod

1. Sod shall be top quality, 12 to 18 month old turf-type fescue sod, dense with basil growth and full at the tops, free of weeds and non-turf growth, insects and disease, fungus and other conditions that indicate past, current or future conditions requiring special treatment or care.
2. Sod shall be comprised of 90% of 3 or more varieties premium turf-type fescue including one rhizomatous fescue such as Labyrinth (RTF), Grande II, Barrington, or Barrera and 10% of sod shall be comprised of 1 or more aggressive bluegrass varieties such as Barrister or Brooklawn, mixed seeded and managed to result in sod with a uniform mix of grass varieties.
3. Grass shall be cut between 2" and 3" before sod is cut and sod root mass with soil shall be uniformly cut ¼ to ½ inch thick in 20" by 40" pieces or other approved dimensions.
4. Sod shall comply with state and federal regulations including inspection for diseases and insects.

(c) Fertilizer shall be a ratio 1:1:1.

(d) Turf Stakes, if needed, shall be a length that extends through the sod and into underlying soil a minimum of 4 inches. Stakes shall be bio-degradable.

Delivery, storage and handling:

(a) The sod shall be transported and handled to avoid physical damage and desiccation. Protective covering shall be used during shipment. At the site sod shall be kept in the shade and protected from the weather and mechanical damage. Sod shall be kept moist at all times and exposed roots physically protected from dehydration.

(b) Fertilizer may be delivered separately or premixed in sacks in which case each sack shall bear a tag with the following information clearly printed: name and address of manufacturer, brand, weight, chemical composition, and guarantee of analysis. Fertilizer shall be kept dry.

Construction Requirements:

(a) Time of operation
1. Sod shall be installed according to Article 252.04, IDOT Standard Specifications.
2. Sod shall be installed when the soil can be properly prepared and when sod can be laid and maintained successfully as verified by the Engineer.
3. Sod shall not be installed during the months of June, July, or August unless approved by Engineer.

(b) Soil preparation:
1. Soils shall be tilled to a full depth of 6" and worked until the surface is smooth and soil particles are no greater than 1" in any dimension.
2. All debris, stones and other foreign material, as well as soil clods greater than 1" in any dimension will be removed from the site.
3. If any cinders, aggregate, rubble, clay, or other material unsuited as a growth medium for plants are found during tilling operations, Contractor shall excavate to a depth of 12", removing all foreign material and compacted clay soils.
4. Contractor shall place approved topsoil in all excavated areas. If good topsoil is found and can be segregated, excavated topsoil can also be used for fill.
5. Contractor shall dispose of excess excavated material off the site.
Along pavements, around drains, and other edges where sod meets hard surfaces, the tamped-soil grade shall be 1/2" below the adjoining hard surfaces to assure that the soil level of the sod is at the grade of adjoining hard surfaces.
6. All areas shall drain and no ponding water shall be allowed.
7. Fertilizer shall be spread uniformly over the area to be sodded at the rate to result in 60 pounds of actual nutrient of each N, P and K per acre (1.4 pounds per 1000 sq.ft.) and incorporated in the top 2" of soil.

8. Soil shall be raked and rolled as necessary to achieve a smooth surface. The soil surface shall be covered with sod before developing a crust.

(c) Sodding

1. Sod shall be delivered in sufficient time and quantities to maintain the approved construction schedule and to assure that no sod is used which has been cut more than 24 hours in advance. No more sod than that which can be laid in a period of 24 hours shall be delivered to the site.
2. Sod shall be placed on the ground with the longer dimension parallel to streets and sidewalks, edges in contact with each other and adjacent hard surfaces (buildings, sidewalks, parking lots), pieces neatly matched and joints of courses staggered.
3. Sod shall be neatly cut 4 feet around tree trunks and 2 feet around shrubs and shrub masses. All exposed edges of sod shall be buried flush with the adjacent soil.
4. Within 1 hour after being laid, the sod shall be watered. It is recommended that 5 gallons of water per square yard shall be uniformly applied to the sod in a manner to allow infiltration of water and avoid run-off.
5. Supplemental watering shall be done as needed. All watering shall be provided by Contractor.
6. Sod shall be thoroughly rolled as needed to achieve a smooth surface and close contact of sod with soil and/or to remove minor irregularities in the surface.

(d) Maintenance

Contractor shall maintain the sod through the establishment period and carefully monitor the condition of the sod, watering as necessary, for a period of 60 days or until project acceptance, whichever is longer.

During the maintenance period, Contractor shall provide:

1. Watering
   a. Providing watering and all necessary water devices as necessary to optimize the establishment and maintenance of sod.
   b. Sod generally shall be watered to achieve a rate of 5 gallons per square yard every 2 days.

2. Mowing
   a. Contractor shall mow turf as soon as the grass reaches a height of 6".
   b. Grass shall be mowed to a height of 3 to 3-1/2 inches using mowers with sharp, level blades.
   c. Care shall be taken to avoid trees, shrubs and flowerbeds during mowing operations. Damage to existing or new trees or other plants shall be repaired or plants shall be replaced as determined by the Engineer.
3. Insects, Disease, Fungus

a. Should problems with the turf develop such as insect infestation, disease or fungus, Contractor shall immediately notify the Engineer and discuss remedies available.
b. Contractor shall proceed expeditiously with selected treatment of affected areas, and continue treatment until the problem is resolved.
c. Contractor shall have state licensed applicators for treatment products as needed.

4. Temporary Controls
   a. It is recommended that sodded areas not be used by pedestrians until sod has established, a period usually 2-3 weeks.
   b. Contractor may erect temporary controls, such as small temporary signs or construction ribbon attached to stakes, to keep foot traffic off newly sodded areas. Such controls shall be coordinated with the Owner.
5. Staking
   a. Turf stakes will not be required, provided the turf is well rooted-in within 6 weeks of installation.
   b. If turf is not rooted-in, as evidenced by edges or areas becoming dislodged, turf stakes shall be installed as determined necessary by the Engineer to hold sod in place.

Basis of Payment: Sodding will be paid for at the contract unit price per square yard for SODDING which price shall include all equipment, materials and labor to complete this item, including maintenance, as specified herein and to the satisfaction of the Engineer. The payment schedule shall be in accordance with Article 252.13 of the Standard Specifications. Fertilizer and agricultural ground limestone will not be paid for separately, but shall be considered included in the cost of SODDING.

STRINGLINE: Some or all of the milling and/or binder on this section is intended as the first step toward establishing the proposed profile grade. In these locations which are shown in the plans, the milling and binder will be controlled by stringline(s) erected, maintained and removed and disposed of by the Contractor.

The cost of providing, erecting, maintaining, removing, disposing of and employing the stringline as the grade control will not be paid for separately, but shall be considered as included in the pay item involved.

COMBINATION CONCRETE CURB AND GUTTER ABUTTING EXISTING PAVEMENT: This work shall consist of removing existing curb/gutter and pavement and constructing Combination Concrete Curb and Gutter that abuts existing pavement.

For areas where existing pavement is removed beyond the minimum necessary to construct the proposed combination curb and gutter, the Contractor shall provide Class B Pavement Patching between the edge of the gutter flag and edge of the sawcut. This

work shall be completed in accordance with Section 442 of the Standard Specifications and as directed by the Engineer.

Prior to removal of any existing curb/gutter for construction of the new combination concrete curb and gutter, the contractor shall longitudinally sawcut the existing pavement to provide a clean square edge for construction of the proposed curb and gutter. In areas of existing pavement where there is no existing curb/gutter, the existing pavement shall be sawcut longitudinally to provide a clean square edge for construction of the proposed curb and gutter. Saw cutting of the existing pavement shall be completed in accordance with the applicable portion of Section 442 of the Standard Specifications.

The proposed construction of the Combination Concrete Curb and Gutter shall be constructed as specified in the plans, IDOT Highway Standard 606001, Section 606 of the Standard Specifications and as directed by the Engineer.

The work necessary to construct the proposed Combination Concrete Curb and Gutter adjacent to existing pavement including sawcuts, pavement removal, earth excavation, aggregate subbase, pavement patching, tie/dowel bars shall not be paid for separately, but considered included in the cost of the Combination Concrete Curb and Gutter, of the type specified, and no additional compensation shall be allowed.

PRIMING OPERATIONS WITHIN THE BUSINESS DISTRICT: Care shall be taken by the Contractor during priming within the limits of this section. Consideration shall be given by the Contractor for manners of performing priming operations in these areas to minimize tracking of the prime and tack coat by pedestrian traffic into adjacent businesses.

The Contractor shall use emulsion prime coat, prime before store hours, prime after store hours, gap prime at pedestrian crossings, prime just far enough ahead of his asphalt laydown operation to assure that the prime coat breaks or prime on weekends when businesses are closed. Care shall also be used in these areas not to prime more area than can be overlaid in one day's operation.

Any inconveniences incurred by the Contractor in complying with this Special Provision will be considered included in the cost per pound for BITUMINOUS MATERIALS (TACK COAT) and no additional compensation will be allowed.

CONCRETE SIDEWALK FINISHING: This work applies to concrete sidewalk surfaces within the project limits and consists of finishing concrete as detailed in the plans and as directed by the Engineer.

Submittals:

(a) None.

Products:

(a) None.

Construction Requirements:

(a) Construction shall be in compliance with Section 424 – Portland Cement Concrete Sidewalk, IDOT Standard Specifications.

(b) Construction joints shall be hand tooled 1½" deep and located as shown on the plans.

(c) Expansion joints shall be ½" thick, full depth, ¼" from the surface with sealer to fill the void. Locations shall be as indicated on the plans, no greater than 30' on-center.

(d) Finish Surface

1. Finish surface shall be medium-broomed, perpendicular to building façade and pedestrian traffic flow according to the plans.
2. All surfaces shall drain.

Basis of Payment: This work will not be paid for separately, but considered included in the cost of PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH.

PORTLAND CEMENT CONCRETE PAVEMENT 9", SPECIAL: This work applies to colored and stamped concrete surfaces as well as non-stamped natural colored concrete located in the cross walks within the street and consists of preparation of sub-base, forming, placing and finishing concrete as shown in the plans and as directed by the Engineer.

Submittals:

(a) The following items shall be submitted and approved prior to operations:

1. Proposed concrete mix,
2. Proposed color additive and sealers
3. Proposed stamp pattern.

(b) A test section of 10 sq.ft. per color shall be provided for evaluation by the Engineer. Sections shall be prepared with integral color, stamped with release agent, and coated with antiskid agent and sealer. Additional test section(s) shall be provided if needed to achieve the desired quality.

(c) The following items shall be submitted during operations:

1. Concrete load tickets
2. Concrete sample test results.

Products:

(a) Concrete: Portland cement concrete in compliance with SI in accordance with Section 1020 – Portland Cement Concrete, IDOT Standard Specifications.

(b) SGS Integral Color shall be fine ground pure mineral pigments, color Colony Red as detailed in the plans for the area of application, specifically designed for coloring concrete as manufactured by Solomon Colors, 4050 Color Plant Road, Springfield, IL 62702 (t) 800-624-0261, www.solomoncolors.com.

(c) Color Release Agent, if applicable, shall be a dry hydrophobic powder and iron oxide coloring, color Charcoal as detailed in the plans, specifically designed as a color release agent as manufactured by Solomon Colors, 4050 Color Plant Road, Springfield, IL 62702 (t) 800-624-0261, www.solomoncolors.com.

(d) Concrete Sealer shall be according to Section 1026 – Concrete Sealer, IDOT Standard Specifications.

(e) Anti-Skid Agent shall be compatible with selected Sealer.

(f) Stamp shall be as detailed in the plans, brick running bond using form “Running Bond New ¼” Joints” (FM-5140) manufactured by Solomon Colors, 4050 Color Plant Road, Springfield, IL 62702 (t) 800-624-0261, www.solomoncolors.com.

Construction Requirements:

(a) Colored, stamped concrete shall match that provided in the Downtown Square and South Main Street projects.

(b) Construction shall be in compliance with Section 424 – Portland Cement Concrete Sidewalk, IDOT Standard Specifications and these specifications.

(c) Construction joints shall be hand tooled as shown on plan.

(d) Expansion joints shall be ½” thick, full depth, ¼” from the surface with sealer to fill the void.

(e) Colored concrete shall be integrally and uniformly colored to achieve manufacturer’s color guide.

(f) Concrete surface shall be stamped to provide full depth impression. Color release agent shall be used as detailed in the plans to achieve appearance to match the approved test section.

(g) Surface shall have antiskid agent and sealer applied.

(h) Finish Surface

1. All surfaces shall drain.
2. Tolerance. No greater than 1" in 10' from lines and grades shown on plan.

(i) Upon completion, the contractor shall take particular care not to damage the pavement surface with other construction operations by covering the pavement with an appropriate protective cover material. Rollers, bituminous prime trucks, concrete trucks, and trucks carrying HMA shall not be allowed to track over the pavement.

Basis of Payment: This work will be paid for at the contract unit price per square yard for PORTLAND CEMENT CONCRETE PAVEMENT 9", SPECIAL which price shall include all equipment, materials, and labor, including base preparation, coloring, pouring and finishing/stamping, to complete this work as specified to the satisfaction of the Engineer.

BRICK PAVERS: This work consist of installation of pavers as detailed in the plans and as directed by the Engineer including preparation of sub-base, concrete base slab with weep holes, setting sand, and concrete unit pavers.

Submittals:

(a) The following items shall be submitted and approved prior to operations:

1. Cut sheets for proposed unit pavers
2. Unit paver samples: minimum of 5 pavers representing full range of paver coloration and list of equipment anticipated for the work.

(b) The following items shall be submitted during operations:

1. Concrete load tickets
2. Concrete sample test results

Products:

(a) Pavers to be furnished shall be in accordance with Article 1042.15(d) and the following:

1. Pavers to match those provided in the Downtown Square and Main Street projects and be IDOT certified pre-cast concrete products.
2. Pavers shall be rectangular pavers with dimensions of 7.875" x 3.875" x 2.375" with beveled edges and spacer lugs.

3. Pavers shall be Holland Premier Paver, color: Heritage Brown as manufactured by Unilock, 301 E. Sullivan Road, Aurora, IL 60504, 716/822-6074.

(b) Setting sand shall be fine crushed stone aggregate gradation FA8 in accordance with Section 1003 – Fine Aggregate, IDOT Standard Specifications.

(c) Concrete base shall be in accordance with Section 1020 – Portland Cement Concrete, Type SI, IDOT Standard Specifications.

Construction Requirements:

(a) Time of operation. Pavers shall be installed when the base can be properly prepared and when setting sand is dry.

(b) Concrete base shall include the following in accordance with Section 424 – PC Concrete Sidewalk, IDOT Standard Specification.

1. Preparation of grade
2. Forming, pouring and finishing of concrete base
3. Coarse broom base surface
4. Drainage holes as shown on project plans

(c) Sand Base

1. Setting Sand shall be placed over concrete base to a fluffed-up thickness of ½" minimum to 1" maximum.
2. Sand shall be screeded over entire area to provide a smooth and uniformly sloped surface.

(d) Paver Installation

1. Pavers shall be set on an area of freshly screeded sand. It is recommended that an area of pavers be installed and vibrated in place the same day.
2. Pavers shall be set according to manufacturer's recommendation in patterns shown on plans.
3. Pavers shall be cut as necessary to fill paved areas. Cuts shall be at precise angles with no chipping or broken edges. Maximum gap between pavers and adjacent pavements shall be 3/8".
4. Sand shall be swept between joints. Paved areas shall be mechanically vibrated to achieve a uniform surface. The process shall be repeated until joints are completely filled and the surface is smooth and uniform.
5. Surface shall be carefully checked. Any cracked or broken pavers shall be removed and replaced.

Basis of Payment: Pavers will be paid for at the contract unit price per square foot for BRICK PAVERS which price shall include all equipment, materials and labor, including

concrete base slab, setting sand, pavers, and other associated work to complete this item as specified and to the satisfaction of the Engineer.

CONCRETE CURB TYPE B (SPECIAL): This work shall consist of construction of a barrier type curb of varying height as well as a footing of variable depth.

The work shall be completed in accordance with the details in the plans, Highway Standard 606001, Section 606 of the IDOT Standard Specifications, and as directed by the Engineer.

Basis of Payment: The concrete curb as described shall be paid for at the unit price per foot for CONCRETE CURB TYPE B (SPECIAL) which shall include all labor, equipment, and materials, including excavation and reinforcement bars, necessary to complete the work to the satisfaction of the Engineer.

REMOVAL OF UNCLASSIFIED MATERIAL: The existing handrails, railroad ties/timbers, sign bases, and other unclassified materials not called out in the Summary of Quantities shall be removed as designated by the Engineer. The material removed as required in this Special Provision shall be disposed of outside the limits of the right of way in accordance with Article 202.03 of the Standard Specifications and as directed by the Engineer.

This work will not be paid for separately, but shall be considered included in the cost per cubic yard for EARTH EXCAVATION and no additional compensation will be allowed.

PAVEMENT REMOVAL OVER EXISTING WATER MAINS: At pavement removal locations over existing water mains, pavement breaking using impact equipment will not be permitted. This restriction will apply to pavement being removed within 10 feet of a water main location. The method of removal will be approved by the Engineer and will be included in the unit cost of the removal pay item.

SAWCUTTING PAVEMENT, SIDEWALK, CURB AND COMBINATION CURB AND GUTTER: Prior to removal of any of the above items, the joint between that portion to remain and that portion to be removed shall be neatly sawed to obtain a vertical edge.

This work shall not be paid for separately, but considered included in the cost of the item being removed.

COMBINATION CURB AND GUTTER REMOVAL: This work shall consist of removing concrete curb and gutter, concrete curb and stone curb at locations indicated on the plans and as directed by the Engineer and in accordance with the applicable portions of Section 440 of the Standard Specifications.

Basis of Payment: This work shall be paid for at the contract unit price per foot for COMBINATION CURB AND GUTTER REMOVAL in accordance with Article 440.08 of the Standard Specifications.

STORM SEWER REMOVAL: This work shall consist of the removal of existing storm sewers as shown in the plans, and as directed by the Engineer. This work shall be completed in accordance with Section 551 of the Standard Specifications and as directed by the Engineer.

Trench backfill for storm sewer removal will not be paid for separately, but will be included in the cost for the associated Storm Sewer Removal. Additionally, pavement patches shall be constructed at the locations of the Storm Sewer Removal in accordance with the applicable specifications for Class C Patches, which price shall also be included in the cost for Storm Sewer Removal.

Basis of Payment: This work shall be paid for at the unit cost per Foot for STORM SEWER REMOVAL, which price shall include all labor, material, and equipment necessary to complete the removal, backfilling, and pavement patching to the satisfaction of the Engineer.

REMOVING INLETS: This work shall consist of removing inlets at the locations shown on the plans in accordance with the applicable portions of Section 605 of the Standard Specifications.

At locations designated by the Engineer the flow in the existing storm sewer system shall be maintained through the area where the inlet is to be removed. The work of removing existing inlets where flow is to be maintained shall be in accordance with Article 605.03 of the Standard Specifications.

EXISTING FRAMES AND GRATES: All frames and grates that are to be removed and which are not to be incorporated into the proposed improvement shall be carefully removed and stored by the Contractor. These items shall become the property of the City of Jacksonville and shall be removed from the job site by the City. This work shall be considered included in the contract and no additional compensation will be allowed.

FIRE HYDRANTS TO BE REMOVED: This work shall consist of the removal of existing fire hydrants as shown in the plans and as directed by the Engineer.

This work item shall be completed in accordance with the applicable portion of Section 564 of the Standard Specifications and to the satisfaction of the Engineer. The exposed water main shall be capped and thrust blocking installed as specified in the Special Provision for Abandonment of Existing Water mains. Fire hydrants shall be carefully removed and stored by the Contractor and shall become the property of the City of Jacksonville and shall be removed from the job site by the City.

Basis of Payment: This work shall be paid for at the contract unit price per each for FIRE HYDRANTS TO BE REMOVED which price shall include all labor, equipment and material necessary to complete the work as specified herein and to the satisfaction of the Engineer.

HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH: This work shall consist of the partial removal of the hot-mix asphalt surfacing of the existing pavement at the locations shown on the plans.

This work shall be performed in accordance with the Special Provision for Stringline and Section 440 of the Standard Specifications.

Basis of Payment: This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH, which price shall include all labor and equipment, including stringline, necessary to complete the work to the satisfaction of the Engineer.

PAVEMENT PATCHING: This work shall consist of temporary aggregate patching, and final patching of the existing roadway after water main and storm sewer installation. This work shall be completed in accordance with Section 442 of the Standard Specifications and as directed by the Engineer.

For those areas to be patched as a result of water main and storm sewer installation, a temporary aggregate or permanent pavement patch will be allowed until the appropriate stage for construction of the pavement(s).

The quantity for PAVEMENT PATCHING, TYPE IV, 8 INCH is estimated, and is included to rebuild the pavement structure on East Street. After the milling operation is complete, in areas the remaining pavement structure is determined by the Engineer to be insufficient, PAVEMENT PATCHING,TYPE IV, 8 INCH shall be constructed to rebuild the pavement structure as directed by the Engineer.

As directed by the Engineer, the patches shall be tied into adjacent existing concrete pavement.

Basis of Payment: This work shall be paid for at the contract unit price per square yard for CLASS C PATCHES of the type and thickness specified which price shall include all equipment, labor and material necessary to construct the final patching area. Temporary aggregate will not be considered for separate payment, but considered included in the cost of CLASS C PATCHES. Patches on East Street will be paid for at the contract unit price per square yard for PAVEMENT PATCHING, TYPE IV, 8 INCH, which price shall include all equipment, labor, and material necessary to construct the patches.

WATER DISTRIBUTION SYSTEM: This item shall consist of furnishing and installing water main, water services, fire hydrants, fittings, valves, valve boxes, line stops, water main casing and other appurtenances necessary to complete the work; said water main and appurtenances being of the type, classes, sizes and dimensions required on the plans; all items being furnished and installed at the places designated on the plans or by the Engineer, in accordance with these specifications and the plans.

This item shall include in the bid price per linear foot of water main in place, the cost of common excavation and trench backfill, the cost of furnishing and installing all trench bracing, all fittings required to complete the water main as shown on the plans, encasement of water main under existing sewer as shown on the plans and the material for and the making of all joints including all connections to existing mains.

This work shall be performed in accordance with and the materials shall comply with the applicable portions of the Standard Specifications for Water and Sewer Main Construction in Illinois, Seventh Edition, dated 2014 and the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, dated April 1, 2016.

MATERIALS

GENERAL

The Contractor shall provide all materials required to construct a potable water main with fire hydrants, valves and fittings, valve boxes, thrust blocking, line stops, water main encasement, disinfecting and testing materials meeting regulatory requirements in accordance with:

1. Illinois Environmental Protection Agency:

    a. Technical Policy Statements, Nov. 1, 1985.
    b. “Recommended Standards for Water Works,” 2003 Edition.

2. American Water Works Association (AWWA):

    a. Cement Mortar Lining for Ductile Iron and Gray Iron Pipe and Fittings for Water (ANSI/AWWA C104/A21.4-90).

    b. Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings (ANSI/AWWA C111/A21.11.90).

    c. Standard for Disinfecting Water Mains (ANSI/AWWA C651-92).

    d. Installation of Gray and Ductile Cast Iron Water Mains and Appurtenances (ANSI/AWWA C600-87).

e. Resilient Seated Gate Valves 3" through 12" NPS for Water and Sewage Systems (ANSI/AWWA C509-87).

f. Dry Barrel Fire Hydrants (ANSI/AWWA C502-85).

g. Ductile Iron and Gray-Iron fittings, 3 in. through 48 in. for water and other liquids (ANSI/AWWA C110/A21.10-93).

3. Specifications for Polyvinyl Chloride (PVC) Plastic Pipe (SDR-PR and Class T) (ASTM D2241).

4. Underground Installation of Thermoplastic Pressure Piping (ASTM D2774-72).

5. "Standard Specifications for Water and Sewer Main Construction in Illinois," Seventh Edition, dated 2014.

6. American Water Works Association ANSI/AWWA C900-89, Polyvinyl Chloride (PVC) Pressure Pipe, 4 in. through 12 in. for Water Distribution.

The Contractor shall transport, deliver, unload, store and handle all materials in a manner to prevent damage to the materials or the work. All damaged, broken or otherwise defective materials will be rejected. Store all circular rubber gaskets and special lubricants in packaged materials with the manufacturer's name, brand and all other applicable data plainly marked thereon.

PVC WATER MAIN PIPE**:** Pressure polyvinyl chloride pipe (PVC) of the size shown on the drawings shall be made from clear, virgin, Type 1, Grade 1 resin conforming to the latest revision of ASTM D1784. It shall be bell and spigot using a rubber gasket in accordance with ASTM F477 and be suitable for use at maximum hydrostatic working pressure of 150 psi at 73 degrees F. All pipe shall meet the requirements set forth in AWWA C900 with Dimension Ratio of DR18 and bear the National Sanitation Foundation seal for potable water. Fittings for PVC water main shall be ductile iron bolted mechanical joint with retainer glands in accordance with AWWA C110/ANSI A21.10. Compact filling conforming to ANSI/AWWA C153/A21.53-88 are acceptable. Fittings shall not be paid for separately, but considered included in the cost of the water main of the size specified.

DUCTILE IRON WATER PIPE: Ductile iron water pipe shall be cement lined in accordance with AWWA C104/ANSI A21.4 and AWWA C151/ANSI A21.51; Class 52 in accordance with AWWA C150/150/ANSI A21.50. Fittings for ductile iron pipe for underground installations shall be bell and spigot or mechanical joint in accordance with AWWA C110/ANSI A21.10, with joints in accordance with AWWA C111/ANSI A21.11. Fittings for ductile iron pipe, which are not underground, shall be flanged in accordance with AWWA C110/ANSI A21.10, with joints in accordance with AWWA C115/ANSI A21.15 or ANSI B16.1, 125 lb., ASTM A-395. Restrained joint for ductile iron pipe in accordance with ANSI/AWWA C151/A21.51, ANSI/AWWA C110/A21.10, ANSI/AWWA C111/A21.11 and ANSI/AWWA C153/A21.53. Where indicated, restrained joint class 53 pipe shall be rated for 350 psi working pressure.

FIRE HYDRANT COMPLETE: Fire hydrants shall be dry barrel with a flangible section near the ground line designed to break on impact. The fire hydrant shall be in accordance with AWWA C502. Fire hydrants shall have a 6-inch mechanical joint inlet connection. Two 2-1/2 inch hose nozzles and one 6" pumper nozzle shall be fitted with cast iron threaded caps with operating nuts of the same design and proportions as the hydrant stem nut. Caps shall be threaded to fit the corresponding nozzles and shall be fitted with suitable gaskets for positive water tightness under test pressures. All hydrants shall include tee, auxiliary 6-inch gate valve and box as specified below and shall not be paid for separately, but included in the cost of Fire Hydrant Complete. Fire hydrants shall be purchased from the City of Jacksonville Water Department. Joints for the fire hydrants and auxiliary 6-inch gate valve shall be mechanical with joint in accordance with AWWA A21.11 with retaining glands.

VALVES WITH VALVE BOXES**:** The minimum requirements for all gate valves shall, in design, material and workmanship, conform to the standards of AWWA C509. All materials used in the manufacturer of waterworks gate valves shall conform to the AWWA standards designed for each material listed.

1. The gate valves shall be standard pattern and shall have the name or mark of the manufacturer, size and working pressure plainly cast in raised letters on the valve body.

2. Valves for underground installation shall be mechanical joint in accordance with AWWA C110/ANSI A21.10, with joints in accordance with AWWA C111/ANSI A21.11 with retainer glands.

3. The valve bodies shall be cast iron, mounted with approved non-corrosive materials. All wearing surfaces shall be bronze or other non-corrosive material, and there shall be no moving bearing or moving contact surfaces, or moving iron in contact with iron.

4. Contact surfaces shall be machined and finished in the best workmanlike manner, and all wearing surfaces shall be easily renewable.

5. Gate valves shall be non-rising stem, resilient wedge style Mueller A-2360 with stainless steel bolts. All valves shall open by turning the operator counterclockwise.

Valve boxes of sufficient length to permit operation of the valves shall be supplied with the valves for underground installation. The cast iron valve box shall be of the extension type, Mueller #H-10360 with length sufficient to extend from the water main up to the surface of the finished grade, provided with a detachable iron lid at least six inches in diameter. The word "WATER" shall be cast on the lid of each box. A plastic alignment device shall be placed on valve stem prior to valve box placement. Valve boxes shall not be paid for separately, but considered included in the cost of the valve of the size specified.

THRUST BLOCKING: Construct poured concrete thrust blocking at all bends in piping equal to or greater than 11-1/4° and at hydrant locations. The concrete blocking shall be poured against undisturbed earth. Thrust block bearing surface shall be of size as shown on drawings and as directed by the Engineer. Concrete shall be Class SI, in accordance with the applicable requirements of Sections 503 and 1020 of the Illinois Department of Transportation "Standard Specifications for Road and Bridge Construction". The cost to provide thrust blocking shall be considered included in the cost of the contract. Wrap all fittings in 6 mil plastic to act as bond breaker between the concrete and valve or fitting.

TRACER WIRE: Provide a #10 single strand coated copper tracer wire suitable for underground installation over all water mains constructed under this contract.

Wire shall be installed directly with the water main before placing any backfill. Wire shall terminate and begin at ground level within the valve boxes. Care shall be exercised during installation to not kink, twist, smash or otherwise weaken or break the wire. Installation shall be subject to the satisfaction of the Engineer. Before acceptance, the tracer wire installations shall be tested for electrical continuity. The Contractor will be responsible for conducting all tests and repairing or replacing all faulty installations to the satisfaction of the Engineer. The cost to provide tracer wire shall be considered included in the cost of the water main.

4" WATER SERVICE CONNECTIONS: Water service connections shall consist of a 4" PVC or ductile iron water service pipe attached to the proposed main using an appropriate tee fitting, reducer, and thrust blocking. The service shall be extended through the basement wall of the business and connected to the existing service using the appropriate reducer fitting. If PVC watermain is used, the material must be transitioned to ductile iron for the last ten feet such that metal pipe is provided +/- five feet on either side of the building penetration. A 4" gate valve with valve box shall be installed immediately after the connection of the service to the main. Trenches shall be backfilled with Trench Backfill.

1" WATER SERVICE CONNECTIONS:

A. Tapping Saddle shall be a Mueller H-13000 Bronze tapping saddle.

B. 1" service corporations and curb stops shall be Mueller compression type (Minneapolis Pattern) of size specified in the plans.

C. 1" Type K copper service pipe shall be in accordance with Section 40-2.06A of the "Standard Specifications for Water and Sewer Main Construction in Illinois", and as shown in the plans.

Any proposed water services that are under existing roadways shall be bored. Cost of boring is to be included in the per foot price. All service pipe, valve, valve boxes, and fittings shall be in accordance with PVC WATER MAIN, VALVES AND VALVE BOXES, and THRUST BLOCKING as described herein.

LINESTOPS: Furnish and install linestops for the pipe diameter specified. This work shall be completed, tested and ready for service prior to the installation of water mains or appurtenances. The static pressure at the installation site is approximately 75 psi. Prior to line stop removal, line stops shall be closed to check for installed valve leaks.

CONSTRUCTION METHODS

GENERAL: The contractor shall provide trenching, excavation, backfilling, compaction, removal of excess excavation, removal of existing water main and appurtenances as necessary, installation of water main and appurtenances, thrust blocking, disinfecting and testing, cast in place concrete and all other work necessary to complete the installation of the water main. No additional compensation will be allowed due to encounters with buried brick, concrete walls from existing basements/vaults.

TRENCHING, BACKFILLING AND COMPACTION. This work shall be performed and executed as follows:

INSPECTION:

A. Examine the area where and conditions under which trenching, backfilling and compacting for utilities are to be performed. Notify Engineer in writing of conditions detrimental to proper and timely completion of the work.

EXCAVATION OR TRENCH FOR PIPE OR CONDUIT:

A. Excavation shall be made by open cut. The sides of the trench shall be kept as nearly vertical as possible, especially from the trench floor to the level of 12 inches above the top of the pipe. Excavation shall be in accordance with Section 20 of the “Standard Specifications for Water and Sewer Main Construction in Illinois”.

B. Trenches shall be excavated to a depth that will provide a covering of not less than 4’-6” or as shown on the drawings, measured from the top of the pipe barrel to the finish grade of the ground. Trench bottoms shall have a minimum width of the pipe plus 12 inches.

C. Provide and maintain such sheeting and bracing to support the sides of the excavation, and to prevent movement which might injure personnel, damage the pipe or delay the work.

BACKFILL BELOW CENTERLINE OF PIPE OR CONDUIT:

1. Granular cradle and pipe cradle materials shall be in accordance with the details shown on the drawings and in accordance with Sections 20-2.20C

of the "Standard Specifications for Water and Sewer Main Construction in Illinois" and in accordance with Section 208 of the "Standard Specifications for Road and Bridge Construction".

2. Granular cradle and pipe cradle shall be placed and compacted in accordance with Sections 20-2.20B of the "Standard Specifications for Water and Sewer Main Construction in Illinois".

BACKFILL ABOVE CENTERLINE OF PIPE OR CONDUIT:

1. After completion of pressure and leakage tests specified elsewhere, the exposed pipe and joints shall be backfilled by hand, together with tamping, until fill has progressed to a minimum depth of 12 inches above the top of the pipe.

2. Backfill above the centerline of pipe or conduit shall be placed and compacted in accordance with Section 20-2.21B, of the "Standard Specifications for Water and Sewer Main Construction in Illinois" and as specified in paragraph 3 below.

3. Backfilling under existing or proposed roads, parking areas, sidewalks, other improved surfaces or at locations shown on the drawings shall be entirely aggregate for trench backfill as specified in Section 208 of the "Standard Specifications for Road and Bridge Construction.

DISPOSAL OF SURPLUS AND UNDESIRABLE EXCAVATION MATERIAL: All surplus excavated material not required for backfilling the excavation shall be removed and deposited and graded in accordance with Section 202.03 of the "Standard Specifications for Road and Bridge Construction". All undesirable material, including rocks, trees, stumps, etc. shall be removed and deposited in accordance with Section 202.03 of the "Standard Specifications for Road and Bridge Construction".

PAYMENT: Costs for work required by this specification section shall be included in the cost of the pipeline installation and no additional compensation will be allowed.

INSTALLATION

COORDINATION:

A. Coordinate installation of water line with all other crafts to alignment, depth and service locations and as shown on the drawings. Damage done to other utilities including, but not limited to telephone, cable, electrical and natural gas shall be addressed as specified in Article 107.39 of the Standard Specifications for Road and Bridge Construction.

INSTALLATION:

A. Laying of Pipe

1. All installations shall conform to lines and grade shown on the drawings. Valves and special fittings shall be placed where shown on the drawings unless their location is changed by the Engineer. When field conditions dictate deviation from the drawings, no change shall be made without written authorization of the Engineer.

2. No pipe shall be laid in water or when, in the opinion of the Engineer, trench conditions are unsuitable. When pipe laying is stopped at night or for any other reason, watertight plugs shall be used to exclude dirt, water, small animals and other foreign material from the pipe.

3. Prior to starting work, have the manufacturer furnish instructions in the proper assembly and installation of the pipe. Such instructions shall in no way be construed to assume all or any part of the Contractor's responsibility for proper installation.

4. All pipe, fittings and accessories shall be carefully placed into the trench by suitable equipment in such manner to prevent damage to pipe and fittings. A granular cradle shall extend completely around all ductile iron fittings to help prevent corrosion.

5. In distributing the material at the site of the work, each piece shall be unloaded opposite or near the place where it is to be laid in the trench. All pipe shall be loaded and unloaded piece-meal by hand or in bundles by lifting with hoists or skidding so as to avoid shock or damage. Under no circumstances shall pipe materials be dropped. Pipe handled on skidways shall not be skidded or rolled against pipe already on the ground.

6. Bedding and backfilling shall be as specified previously.

7. Before any length of pipe is placed in the trench, a careful inspection shall be made of the interior of the pipe to see that no foreign material is in the pipe. In order to properly remove all foreign material, swab of necessary length shall be available at all times.

8. All pipe shall be lowered carefully into the trench, properly aligned, and properly jointed by use of suitable tools and equipment, in a manner to prevent damage to pipe materials and protective coatings and linings.

9. Under no circumstances shall pipe materials or fittings be dropped or dumped into the trench. The pipe and fittings shall also be inspected to determine if they are sound and free from cracks. Laying of pipe shall be commenced immediately after excavation is started.

10. Pipe shall be laid with bell ends facing in the direction of laying, unless the main is being laid down a steep incline, in which case the bell ends shall face uphill.

11. All lumps, blisters and excess coating shall be removed from the joint of each pipe; and the outside and inside of all joints shall be wire brushed and wiped clean and dry and free from oil and grease before the pipe is laid.

12. Avoid field cutting of pipe if at all possible. When pipe is to be cut in the field, the cut end shall be conditioned so that it can be used to make up the next joint. Bevel the outside of the cut 3/16 inch to ¼ inch at an angle of approximately 30 degrees to prevent damage to the gasket.

B. Jointing:

1. Remove all foreign matter from the socket, making sure the gasket seat is clean.

2. The gasket shall be wiped clean with a clean cloth, flexed and properly placed in the socket for a snug fit in the retainer seat.

3. Apply lubricant furnished by the pipe manufacturer on the surface of the gasket which will come in contact with the plain end of the pipe to be laid.

4. Clean the plain end of the pipe and apply a thin film of lubricant about one inch wide around the circumference of the pipe. Keep pipe free of ground or trench sides to prevent foreign matter from clinging to the lubricant.

5. The plain end of the pipe shall be aligned and carefully entered into the socket until it just makes contact with the gasket. This is the starting position for the final assembly of the joint.

6. Joint assembly shall then be completed by jacking the plain end of the entering pipe past the gasket (which is thereby compressed) until it makes contact with the bottom of the socket. A system of marking the pipe shall be used to make certain the assembled joint is at the proper depth.

C. Laying of Pipe on Curves:

1. Long radius curves, either horizontal or vertical, may be laid with standard pipe by deflections at the joints. When the pipe is shown curved on the drawings and no special fittings are shown, the curves can be made by deflection of the joints as shown on the drawings with standard lengths of pipe. Where shorter lengths are required, the drawings will indicate maximum lengths that can be used. No pipes shall be laid on curve without written authorization of the Engineer.

2. When rubber gasketed pipe is laid on a curve, the pipe shall be jointed in a straight alignment and then deflected to the curved alignment. Trenches shall be made wider on curves for this purpose.

D. Valve Boxes and Valves for Underground Installation:

1. The valve boxes shall be set in position during backfilling operations so they will be in a vertical alignment to the gate valve operating stem. A plastic alignment device shall be placed on valve stem prior to valve box placement. The lower casting of the unit shall be installed first in such a manner as to be cushioned and to not rest directly upon the body of the gate valve or upon the water main. The upper casting of the unit shall then be placed in proper alignment and to such an elevation that its top will be final grade.

2. All valve boxes shall be installed flush with sidewalks, drives or finish grade.

3. All gate valves shall be inspected upon delivery in the field to insure proper working order before installation. They shall be set and jointed to the pipe in a manner as set forth in the AWWA Standards for the type of connection ends furnished.

4. Buried valves shall be installed in a vertical position and be provided with a standard valve chamber in a cast iron valve box so arranged that no shock will be transmitted to the valve or strain on pipe joints. The box shall be centered over the operating nut, and the cast iron box cover shall be set flush with the roadbed or finished surface.

E. Hydrants

1. Hydrants shall be installed at the locations shown on the drawings. They shall be plumb and shall be set so that the lowest hose connection is at least 15 inches above the surrounding finish grade. All hydrants shall be inspected in the field upon delivery to the job to insure proper operation before installation. A minimum of ¼ cubic yard of 1” gravel shall be placed at and around the base of the hydrant to insure proper drainage of the hydrant after use. The blocking of the hydrant shall conform with the blocking detail shown on the drawings. A layer of filter fabric shall be placed over the gravel drain field. Care shall be taken to insure that weep holes are not covered by concrete blocking or filter fabric.

F. Thrust Blocking

1. Where any section of water line is provided with concrete reaction blocking, the hydrostatic pressure test shall not be made until at least two days have elapsed after the concrete reaction blocking was installed.

G. Installation procedures shall also follow methods as specified in ASTM D-2774 and ANSI/AWWA C600 in combination with the manufacturer's recommendations.

HORIZONTAL SEPARATION-WATER MAINS AND SEWERS:

A. Water mains shall be located at least ten feet horizontally from any existing or proposed drain, storm sewer, sanitary sewer, combined sewer or sewer service connection.

B. Water mains may be located closer than ten feet to a sewer line when:

1. Local conditions prevent a lateral separation of ten feet; and

2. The water main invert is at least 18 inches above the crown of the sewer; and

3. The water main is either in a separate trench or in the same trench on an undisturbed earth shelf located to one side of the sewer.

C. When it is impossible to meet (A) or (B) above, both the water main and drain or sewer shall be constructed of slip-on or mechanical joint ductile iron pipe or PVC pipe equivalent to water main standards of construction. The drain or sewer shall be pressure tested to the maximum expected surcharge head before backfilling.

VERTICAL SEPARATION – WATER MAINS AND SEWERS:

A. A water main shall be separated from a sewer so that its invert is a minimum of 18 inches above the crown of the drain or sewer whenever water mains cross storm sewers, sanitary sewers or sewer service connections. The vertical separation shall be maintained for that portion of the water main located within ten feet horizontally of any sewer or drain crossed. A length of water main pipe shall be centered over the sewer to be crossed with joints equidistant from the sewer or drain.

B. Both the water main and sewer shall be constructed of slip-on or mechanical joint ductile iron pipe or PVC pipe equivalent to water main standards of construction when:

1. It is impossible to obtain the proper vertical separation as described in (A) above; or

2. The water main passes under a sewer or drain.

C. A vertical separation of 18 inches between the invert of the sewer or drain and the crown on the water main shall be maintained where a water main crosses under a sewer. Support the sewer or drain lines to prevent settling and breaking the water main, as shown on the plans or as directed by the Engineer.

D. Construction shall extend on each side of the crossing until the perpendicular distance from the water main to the sewer or drain line is at least ten feet.

TESTING:

A. Hydrostatic Test

1. Backfill shall be placed over the pipe except at the joints. The pipe shall be slowly filled with water. Care shall be taken to expel all the air from the pipes. The pipes shall be tapped at high points to vent the air. Pressure of 125 psi, measured at the point of lowest elevation, shall be applied for not less than two hours; and all pipe, fittings, valves, hydrants and joints shall be carefully examined for defects. Leaking joints shall be remade and then retested. Test pressure shall be 125 psi.

2. No pipe installation shall be accepted unless and until the leakage, determined under the test pressure, is less than that allowed in Section 41-2.13C in the “Standard Specifications for Water and Sewer Main Construction in Illinois”.

3. The test shall be made between valves and shall be made within 10 working days of the completion of such sections of lines. To determine the rate of leakage, furnish a suitable pump, pressure gauge and water meter or other appliance for measuring the amount of water pumped. The instruments shall be tested for accuracy as frequently as directed by the Engineer. Contractor shall furnish all the labor and materials to make the tests and to perform all testing work incidental to the Contract.

B. All other water line appurtenances shall be tested at the factory in accordance with the applicable AWWS Standard stated in Section 760-2.1 of this special provision. Accept all material upon delivery and insure its proper operation at substantial completion.

DISINFECTION:

A. Disinfection of valves, hydrants and piping shall be conducted in accordance with the materials and methods specified in AWWA C651. In the process of disinfecting newly laid pipe, all valves or other

appurtenances shall be operated while the pipe line is filled with the chlorinating agent.

B. Following disinfection, all chlorinated water shall be thoroughly flushed from the newly laid pipe line at its extremities until the replacement water throughout its length shall, upon test, be proved comparable in quality to the water served the public from the existing water supply system. Bacteriological testing shall be as required by the Illinois Environmental Protection Agency. Two passing tests a minimum of 24 hours apart will be required.

C. Upon completion of testing and disinfection, Contractor shall leave all lines full of water ready for use by the Owner. The cost to disinfect including all water required shall be considered included in the cost of the Contract.

RESTORATION AND CLEAN-UP:

A. Upon completion of the water distribution system, all excavated areas shall be restored by reseeding, replacement of aggregate base course, and/or pavement replacement as required. All areas will be left in a condition to not restrict drainage. Regrade all ditches and side slopes. Reseeding shall be in accordance with Section 250 of the IDOT Standard Specifications for Road & Bridge Construction.

B. Upon completion of the work, inspect the entire installation. Correct all defective work. Replace all damaged and defective parts with new materials.

C. Upon completion of installation and at such other times as directed, remove all surplus materials, debris, empty cartons, rubbish, and legally dispose of same off the site.

PAYMENT:

A. Payment for the installation of pipe, valves, line stops and hydrants shall be at the Contractor Unit Price Bid for the respective items. The Unit Price Bid shall include excavation and trench backfill for the pipeline whether it is by trenching or open cut. All work required for the complete installation, ready for use, of this water distribution system shall be included in the Unit Prices Bid.

CONCRETE THRUST BLOCKING: Handling, proportioning, batching, mixing, testing and placing the cast-in-place concrete for thrust blocking shall be performed in accordance with the applicable requirements of Section 1020 and of the construction requirements of Section 503 of the “Standard Specifications for Road and Bridge Construction”. The concrete shall have a minimum compressive strength of 3,500 psi at 14 days.

Basis of Payment: Payment will be made at the contract unit price per linear foot for each kind of water main/service pipe of the type, class and size designated. Payment will also be made for the installation of valves (including valve boxes), line stops, and fire hydrants (including auxiliary valves and valve boxes) of the types and sizes designated at the contract unit price per each for the respective items. Trench backfill will not be paid for separately, but considered included in the cost of the respective item.

These prices shall be full compensation for furnishing all materials required as shown in the plans and for all preparation, assembly, and installation of these materials; and for all testing, disinfecting, cleanup and restoration; and for all labor, equipment, tools, trench backfill and incidentals necessary to complete the installation of this water distribution system, ready for use, and accepted by the Engineer.

Payment will be made at the contract unit price for the following items:

WATER MAIN 6" - per foot

WATER MAIN LINE STOP 6" – per each

FIRE HYDRANT COMPLETE – per each

WATER VALVES 4" – per each

WATER VALVES 6" – per each

WATER SERVICE LINE 4" – per foot

WATER SERVICE LINE 1" – per foot

WATER SERVICE LINE 1" (BORED) – per each

STAGING OF WATER MAIN HYDROSTATIC TEST: The contractor shall conduct hydrostatic testing of the water main constructed prior to conducting paving patching operations. Leaking joints shall be repaired and re-tested prior to conducting paving patching operations.

Costs for work required by this special provision will not be paid for separately, but shall be considered included in the cost of the water distribution system pay items involved.

ADJUSTING WATER MAINS: This work shall consist of lowering and relocating existing water mains in accordance with the detail shown on the plans at locations where existing water mains are in conflict with the proposed storm sewer or other construction.

All materials, construction methods, pressure testing, and disinfection of water mains shall conform with Section 561 of the Standard Specifications.

Basis of Payment: This work will be paid for at the contract unit price per foot for ADJUSTING WATER MAIN, of the size shown, measured in place. This price shall include all material, labor and equipment necessary and shall include the cost of trench backfill, hydrostatic tests and disinfecting the water main.

ADJUSTING WATER SERVICE LINES: This work shall consist of lowering and relocating water service lines at locations where existing water service lines are in conflict with the proposed storm sewer or other construction.

All materials, construction methods, pressure testing, and disinfection of water service lines shall conform with Section 562 of the Standard Specifications.

Basis of Payment: This work will be paid for at the contract unit price per foot for ADJUSTING WATER SERVICE LINES, regardless of the size encountered, measured in place. This price shall include all material, labor, and equipment necessary and shall include the cost of trench backfill.

WATER MAIN ABANDONMENT: This work shall consist of abandoning existing water mains in place and the removal of existing water mains, fittings, valves, meters, boxes, yard hydrants, and associated appurtenances associated with construction of the proposed water main/services and storm sewer as shown in the plans and as directed by the Engineer.

The work items shall include shutting off all valves and corporation stops. All exposed service lines and water mains to be abandoned that are exposed as a result of other construction activities shall be capped and thrust blocking installed. All service risers/boxes shall be removed to 2' below the limits of the proposed improvements. All work shall be as specified herein, as directed by the Engineer to meet the satisfaction of the City of Jacksonville.

Backfilling under existing or proposed roads, sidewalks, or other improved surfaces shall be completed using Trench Backfill as specified in Section 208 of the Standard Specifications.

All abandoned water main that conflicts with the operation or maintenance of existing or proposed sanitary or storm sewer, including manholes and all associated appurtenances, shall be removed as to not interfere with the service to remain as specified and to the satisfaction of the Engineer.

Basis of Payment: This work shall be paid for at the contract unit price per each for WATER MAIN ABANDONMENT which price shall include all labor, equipment and materials, including trench backfill, to complete this item as specified and to the satisfaction of the Engineer. The removal of existing water mains, regardless of size of material encountered, fittings, valves, meters, boxes and associated appurtenances shall not be paid for separately, but considered included in the cost of WATER MAIN ABANDONMENT.

STORM SEWER (WATER MAIN REQUIREMENTS): This work shall consist of constructing a storm sewer to meet water main standards, as required by the IEPA requirements or when otherwise specified. The work shall be performed in accordance with applicable parts of Section 550 of the Standard Specifications, applicable sections of the current edition of the IEPA Regulations (35 Ill. Adm. Code 653.119), the applicable sections of the current edition of the Standard Specifications for Water and Sewer Main Construction in Illinois, and as herein specified.

This provision shall govern the installation of all storm sewers which do not meet IEPA criteria for separation distance between storm sewers and water mains. Separation criteria for storm sewers placed adjacent to water mains and water services are as follows:

1. Water mains and water service lines shall be located at least 10 foot horizontally from any existing or proposed drain, storm sewer, or sewer service connection.

2. Water mains and water service lines may be located closer than 10 foot to a sewer line when:

   A. Local conditions prevent a lateral separation of 10 foot, and

   B. The water main or water service invert is 18 inches above the crown of the sewer, and

   C. The water main or water service is either in a separate trench or in the same trench on an undisturbed earth shelf located to one side of the sewer.

3. A water main or water service shall be separated from a sewer so that its invert is a minimum of 18 inches above the crown of the drain or sewer whenever water mains or services cross storm sewers, sanitary sewers or sewer service connections. The vertical separation shall be maintained for that portion of the water main or water services located 10 foot horizontally of any sewer or drain crossed.

When it is impossible to meet 1, 2, and 3 above, the storm sewer shall be constructed of concrete pressure pipe, slip-on or mechanical joint ductile iron pipe, or PVC pipe equivalent to water main standards of construction. Construction shall extend on each side of the crossing until the perpendicular distance from the water main or water service to the sewer or drain line is at least 10 foot. Storm sewer meeting water main requirements shall be constructed of the following pipe materials:

Concrete Pressure Pipe

Concrete pressure pipe shall conform to the latest AWWA Standard C300, C301, C302, or C303.

Joints shall conform to Article 41-2.07B of the "Standard Specifications for Water and Sewer Main Construction in Illinois."

Ductile Iron Pipe

Ductile-iron pipe shall conform to ANSI A 21.51 (AWWA C151), class or thickness designed per ANSI A 21.50 (AWWA C150), tar (seal) coated and/or cement lined per ANSI A 21.4 (AWWA C104), with a mechanical or rubber ring (slip seal or push on) joints.

Joints for ductile iron pipe shall be in accordance with the following applicable specifications.

1. Mechanical Joints - AWWA C111 and C600
2. Push-On Joints - AWWA C111 and C600

Plastic Pipe

Plastic pipe shall be marked with the manufacturer's name (or trademark); ASTM or AWWA specification; Schedule Number, Dimension Ration (DR) Number or Standard Dimension Ration (SDR) Number; and Cell Class. The pipe and fittings shall also meet NSF Standard 14, and bear the NSF seal of approval. Fittings shall be compatible with the type of pipe used. The plastic pipe options shall be in accordance with the following:

1. Polyvinyl Chloride (PVC) conforming to ASTM D 1785. Schedule 80 is required for all pipe sizes, except when the pipe is to be threaded, and then it shall be Schedule 120. It shall be made from PVC compound meeting ASTM D 1784, Class 12454.

2. Polyvinyl Chloride (PVC) conforming to ASTM D 2241. SDR 26 or less is required for all pipe sizes. It shall be made from PVC compound meeting ASTM D 1784, Class 12454.

3. Chlorinated Polyvinyl Chloride (CPVC) conforming to ASTM F 441. Schedule 80 is required for all pipe sizes. Threaded joints are not allowed. It shall be made from CPVC compound meeting ASTM D 1784, Class 23447.

4. Chlorinated Polyvinyl Chloride (CPVC) conforming to ASTM F 442. SDR 26 or less is required for all pipe sizes. It shall be made from CPVC compound meeting ASTM D 1484, Class 23447.

5. Polyvinyl Chloride (PVC) conforming to ANSI/AWWA C900. DR 25 or less is required for all pipe sizes. It shall be made from PVC compound meeting ASTM D 1784, Class 12454.

6. Polyvinyl Chloride (PVC) conforming to ANSI/AWWA C905. DR 26 or less is required for all pipe sizes. It shall be made from PVC compound meeting ASTM D 1784, Class 12454.

Joining of plastic pipe shall be by push-on joint, solvent welded joint, heated welded joint, flanged joint, or threaded joint, in accordance with the pipe manufacturer's instructions and industry standards. Special precautions shall be taken to insure clean, dry contact surfaces when making solvent or heat welded joints. Adequate setting time shall be allowed for maximum strength.

Elastomeric seals (gaskets) used for push-on joints on plastic pipes shall comply with ASTM F 447.

Solvent cement shall be specific for the plastic pipe material and shall comply with ASTM D 2564 (PVC) or ASTM F 493 (CPVC) and be approved by NSF.

For water-sewer crossings only, storm sewer meeting water main requirements may also be constructed of reinforced concrete sewer pipe. The sewer pipe shall conform to ASTM C 76 with a rubber gasket meeting ASTM C 443. The pipe class shall meet the requirements of Section 550 of the Standard Specifications for Road and Bridge Construction.

Basis of Payment: This work will be measured and paid for at the contract unit price per foot for STORM SEWER (WATER MAIN REQUIREMENTS) of the diameter specified.

STORM SEWER CONNECTIONS: The cost of connecting existing storm sewers to the proposed drainage system shall be considered included in the cost of the proposed storm sewers or drainage structures involved. No additional compensation will be allowed.

EXISTING DRAIN PIPES: All existing drainage pipes, tiles or downspouts which may be encountered during construction of the proposed improvement shall be connected to the storm sewer as detailed in the plans and to the satisfaction of the Engineer. All trenches shall be filled with trench backfill as specified in Section 550 of the Standard Specifications. The type of materials permitted for Storm Sewer (Special) shall be according to Article 550.03 for storm sewers, Type 2.

Basis of Payment: This work shall be paid for at the unit price per foot of STORM SEWERS (SPECIAL) of the diameter specified which price shall include all equipment, labor and material, including trench backfill necessary to connect existing drain tiles/pipes to the storm sewer as specified herein and to the satisfaction of the Engineer.

TEMPORARY DRAINAGE INTO PROPOSED DRAINAGE STRUCTURES: This work shall consist of providing temporary drainage into any proposed drainage structure that

is to be constructed in sag locations. These sag locations shall also be interpreted to include side streets.

Concrete curb and gutter shall not be placed at sag inlet locations until Hot-mix asphalt binder has been placed to allow for drainage into structure.

This work will not be paid for separately, but shall be considered as included in the contract unit price for the various pay items involved and no additional compensation will be allowed.

TELESCOPING STEEL SIGN SUPPORT (SPECIAL): This work shall consist of furnishing and installing telescoping steel sign supports for ground-mounted signs utilizing a telescoping base section as specified in Section 728 of the Standard Specifications, and as directed by the Engineer.

The steel pipe and the base shall be coated as specified below. Color of the coating shall be black. The coating shall be applied only after the steel pipe and base have been fabricated. The final product shall not contain cracks in the coating, ripples in the curved areas, nor any damage due to fabrication and or shipping.

(a) Steel shall be shot blast to near white steel and then an iron phosphate pre-treatment shall be applied.

(b) Primer shall be a thermosetting epoxy powder coating (Corvel Zinc Gray 13-7004) electrostatically applied and cured six minutes at 250°F. (121°C.). The primer thickness shall be 1.8-10 mils (45-250 μm).

(c) Topcoat shall be triglycidly isocyanurate (TGIC) polyester powder coating, electrostatically applied and cured in an oven for 20 minutes at 250°F. (121°C.). The total of all the coatings shall be 8-10 mils (200-250 μm).

Basis of Payment: This work shall be paid for per unit foot of TELESCOPING STEEL SIGN SUPPORT (SPECIAL) which price shall include all material, equipment and labor necessary to complete this work as specified to the satisfaction of the Engineer.

EXISTING SIGNS TO BE REMOVED: This work shall consist of the removal of existing sign panels, sign panel assemblies, and supports that conflict with the final signing as shown in the plans and as directed by the Engineer. This work shall be completed in accordance with Section 724 of the Standard Specifications. Sign panels removed shall become the property of the City of Jacksonville.

Basis of Payment: This work shall not be paid for separately, but considered included in the cost of SIGN PANEL – TYPE 1 to be erected and no additional compensation shall be allowed.

STREET LIGHTING ASSEMBLY COMPLETE: This work consists of providing and installing decorative cast aluminum poles, clam shell bases, arms, caps, luminaries, internal pole wiring for the luminaries, and GFI receptacle outlets as shown in the plans and as directed by the Engineer.

Submittals:

(a) The following items shall be submitted and approved prior to operations:

(1) Product cut sheets
(2) Engineer sealed footing drawing.

Warranty: Light fixtures and decorative poles shall have the manufacturer's 5-year limited warranty.

Products:

(a) Street Lighting Assembly Complete, Type F1

1. Poles shall be cast aluminum alloy. The shaft shall be 27' high, straight tapered from 8.6-4.68". Four hot dipped galvanized "L" type non-quick release anchor bolts shall be provided for each light pole.
2. A lockable GFI 2-outlet receptacle shall be mounted at the base of each pole.
3. 2 banner arms shall be provided on each pole to accommodate a 30"x60" banner.
4. The Clam Shell Base shall be Birmingham 9701SS, 54" high, base diameter 27".
5. Roadway Arm shall be Model CBA, 8' long.
6. Caps for poles shall be 4" dia. Ball Cap.
7. Luminaire (1) to be 1910LEDLBS Reno Series, a decorative downlight fixture which consists of a decorative cast aluminum fitter, a spun aluminum shade and lens. The luminaire has LED light sources with down lighting optics.
8. Model #1A-1910LEDLBS-5P-4A1R40T3-MDL03-A-HSHB/CBA8/9727SRTS/BCC4/1-GFI IUC/1-HDBA/PG as manufactured by Sternberg Lighting, 555 Lawrence Ave. Roselle, IL 60172, 847/588-3400, www.sternberglighting.com. All metal parts shall be park green.

(b) Street Lighting Assembly Complete, Type F2

1. Poles shall be cast aluminum alloy. The shaft shall be 27' high, straight tapered from 8.6-4.68". Four hot dipped galvanized "L" type non-quick release anchor bolts shall be provided for each light pole.
2. A lockable GFI 2-outlet receptacle shall be mounted at the base of each pole.
3. 2 banner arms shall be provided on each pole to accommodate a 30"x60" banner.

4. The Clam Shell Base shall be Birmingham 9701SS, 54” high, base diameter 27”.
5. Roadway Arms (2) shall be Model CBA, 8’ long.
6. Caps for poles shall be 4" dia. Ball Cap.
7. Luminaires (2) to be 1910LEDLBS Reno Series, decorative downlight fixtures which consists of a decorative cast aluminum fitter, a spun aluminum shade and lens. The luminaire has LED light sources with down lighting optics.
8. Model #2A-1910LEDLBS-5P-4A1R40T3-MDL03-A-HSHB/CBA8/9727SRTS/BCC4/1-GFI IUC/1-HDBA/PG as manufactured by Sternberg Lighting, 555 Lawrence Ave. Roselle, IL 60172, 847/588-3400, www.sternberglighting.com. All metal parts shall be park green.

(c) Concrete for footing shall be in accordance with Section 1020 – Portland Cement Concrete, Type SI, IDOT Standard Specifications.

(d) Reinforcement shall be in accordance with Section 1006.10 – Concrete Reinforcement Bars, Fabric, and Strand, IDOT Standard Specifications.

Construction Requirements:

(a) Poles shall be set on concrete bases using anchor bolts provided by manufacturer. Bolts shall be securely set in concrete with epoxy grout recommended by manufacturer.

(b) Fluted base cover shall clamp around base plate and lower shaft of the pole assembly. Secure with 6 tamper-proof stainless steel screws. Access door in base shall be secured with 2 tamper-proof stainless steel screws according to manufacturer’s instructions.

(c) All components shall be installed according to manufacturer’s instructions.

(d) Any scuffing or surface marring shall be repaired to the satisfaction of the Engineer.

Measurement: This work will be measured by the number of units installed.

Basis of Payment: Single Light fixture mount, pole with banner arms, and base will be paid for at the contract unit price per each for STREET LIGHTING ASSEMBLY COMPLETE, TYPE F1 which price shall include equipment, materials and labor including foundation to complete this item as specified to the satisfaction of the Engineer.

Double Light fixture mount, pole with banner arms, and base will be paid for at the contract unit price per each for STREET LIGHTING ASSEMBLY COMPLETE, TYPE F2 which price shall include equipment, materials and labor including foundation to complete this item as specified to the satisfaction of the Engineer.

ORNAMENTAL LIGHT UNIT, COMPLETE: This work consists of providing and installing decorative cast aluminum poles, luminaries, internal pole wiring for the luminaries, and GFI receptacle outlets as shown on the plans and as directed by the Engineer.

Submittals:

(a) The following items shall be submitted and approved prior to operations:

1. Product cut sheets
2. Engineer sealed footing drawing.

Warranty: Light fixtures and decorative poles shall have the manufacturer's 5-year limited warranty.

Products:

(a) Ornamental Light Unit, Complete

1. Poles shall be 12-feet high cast aluminum alloy. The shaft shall be smooth tapered. Four hot dipped galvanized "L" type anchor bolts shall be provided for each light pole.
2. Base shall be Birmingham 7700 cast aluminum alloy.
3. A lockable GFI 2-outlet receptacle shall be mounted at the base of each pole.
4. Luminaire to be Old Town Series, 16" x 40½". The acorn is supplied with a cast aluminum finial and a solid, cast aluminum roof which includes optimized heat sinks to provide maximum life and performance for the LED light sources. The acorn is sealed to the cast aluminum roof to provide a moisture-free and bug-free optics chamber for the LED light sources and Rated IP65.
5. Poles, bases and fixtures shall be model #PT-A850SRLED-5P-3ARC40T5-MDL03-A/7712T5-.125/1-GFILPIUC/PG as manufactured by Sternberg Lighting, 555 Lawrence Ave. Roselle, IL 60172, 847/588-3400, www.sternberglighting.com. All metal parts shall be park green.

(b) Concrete for footing shall be in accordance with Section 1020 – Portland Cement Concrete, Type SI, IDOT Standard Specifications.

(c) Reinforcement shall be in accordance with Section 1006.10 – Concrete Reinforcement Bars, Fabric, and Strand, IDOT Standard Specifications.

Construction Requirements:

(a) Poles shall be set on concrete bases using anchor bolts provided by manufacturer. Bolts shall be securely set in concrete with epoxy grout recommended by manufacturer.

(b) All components shall be installed according to manufacturer's instructions.

(c) Any scuffing or surface marring shall be repaired to the satisfaction of the Engineer.

Basis of Payment: This work will be paid for at the contract unit price per each ORNAMENTAL LIGHT UNIT, COMPLETE which price shall include equipment, materials and labor including foundation to complete this item as specified to the satisfaction of the Engineer.

LANDSCAPE PLANT MATERIAL: This work shall consist of providing and installing plant material, excavating unacceptable material and replacing with topsoil if necessary, applying herbicide, mulching plant material, mulching existing trees, staking trees, and providing maintenance as specified herein and as directed by the Engineer. All work shall be completed in accordance with Section 253 and 254 of the Standard Specifications and the following:

Submittals:

(a) The following items shall be submitted and approved prior to operations:

1. Proposed sources of plant material and digital photos of plants
2. One cubic foot sample proposed topsoil
3. One cubic foot sample each of Medium-Textured Hardwood Mulch and Fine-Textured Hardwood Mulch.

(b) The following items shall be submitted during operations:

1. Tags from all fertilizer
2. Peat moss and manure used in the project
3. Tags from all plant material showing species, size and source.

Products:

(a) All plant materials shall be approved by the Engineer prior to installation; shall be clearly marked as to source, species, size, specimen quality; conform to the species and sizes specified; have a growth habit representative of that species; and be free from diseases, insect pests and injuries.

1. Balled and Burlapped (B&B) Plants shall:
   a. Be grown in a nursery with climatic conditions similar those at the project site. B&B plants grown south of the St. Louis latitude will not be accepted.
   b. Have a single leader unless otherwise specified.

c. Have been pruned frequently while growing in the nursery to avoid forked leaders, low or uneven branching, asymmetric growth, crossed limbs, scars from pruning, etc.
d. Be dug only when plants are dormant.
e. Be dug in accordance with best nursery practices.
f. Have solid earthen balls that encompass the fibrous and feeding roots of the plant.

2. Container Grown Plants shall:
   a. Be grown in pots of specified size with high quality rooting medium within 1 inch of the top of the container.
   b. Be well grown-in with roots that fully encompass the rooting medium.
   c. Have tops that are full and healthy at the time of planting.

(b) Topsoil shall be loamy soil from the A horizon soil profile of local prairie-type soils; have an organic content between 6 and 10 percent; be entirely free of foreign material including construction waste, rocks and aggregate, litter and contaminating products; and have a pH between 6.0 and 8.0. At least 90 percent must pass the 2.00 mm sieve.

(c) Backfill Mixture

1. Backfill Mixture for planting holes shall be a uniform mixture of eight (8) parts rich topsoil provided by the Contractor from which all foreign material and particles greater than 1" in any dimension have been removed, one (1) part peat moss and one (1) part manure.
2. Peat moss shall be free from foreign material such as soil and wood and shall have uniform particle sizes not exceeding 1/4" in any dimension.
3. Manure shall be well rotted, unleached horse or cattle manure free from foreign material and containing no phytotoxic substances.

(d) Medium Textured Wood Mulch shall be composted, shredded hardwood of particles no larger than 4" in any dimension and free of all foreign materials and approved by the Engineer.

(e) Fine Textured Wood Mulch shall be composted, shredded hardwood of particles no larger than 2" in any dimension and free of all foreign materials and approved by the Engineer.

(f) Gravel shall be ½” to 1” diameter, light to medium brown color with angular shape.

(g) Geotextile fabric to be 6 oz. woven fabric according to Section 1080 – Fabric Materials, IDOT Standard Specifications.

(h) Fertilizer shall be slow release granular form and contain 14% nitrogen, 14% phosphoric acid and 14% potash.

(i) Pre-emergent herbicide shall be a slow-release granular type specifically recommended for use in newly planting areas.

(j) Water may be obtained by Contractor from metered hydrants. Prior to use of hydrants, a meter shall be obtained from the Jacksonville Water Department by contacting the Water Superintendent at 479-4615 or 479-4660.

Delivery, storage and handling

(a) Plant material shall be delivered to the site on the same day it is scheduled for installation.

(b) All Plant Material shall be transported and handled to avoid physical damage and desiccation of the plants. Protective covering shall be used during shipment.

(c) At the site plants shall be kept in the shade and protected from weather and mechanical damage. Roots shall be kept moist. The name of one plant of each variety shall be clearly marked.

(d) All packaged material shall be delivered in containers showing the weight, analysis and name of manufacturer. Material shall be protected from deterioration during delivery and storage at the site.

(e) During installation, material shall be handled to avoid damage to all plant parts. Should any plant parts be accidently damaged during operations, the Engineer shall decide if immediate replacement is required.

Construction Requirements:

(a) Time of operation. Planting shall be done when the climatic and soil conditions are appropriate as confirmed by Engineer.

(b) Layout

1. It shall be the Contractor's responsibility to locate utilities prior to layout and to avoid any conflicts and damage.
2. Contractor shall stake the location of each tree and the perimeter of each shrub and planting bed to the satisfaction of the Engineer.

(c) Tree and Shrub Plant Excavation and Topsoil Backfill

1. Excavations for plants shall have near vertical sides and flat bottoms.
2. Contractor shall protect excavations and not leave unprotected over-night.
3. Excavations for trees shall be 12" on all sides of root ball. Excavations for shrubs shall be 6" on all sides of root ball. If existing excavated soil is not

approved excavate to the following dimensions and backfill with approved topsoil:

a. Trees of all sizes: 4' x 4' x 4' in dimension.
b. Trees in grates: 4’ deep by the length and width of the tree grate.
c. Shrubs, hedges, shrub beds and flower beds: 2' deep, and extending beyond the outside plants a distance of 2'.
d. Plants in median islands: 2’ deep for the entire area of the island.

4. Contractor shall dispose of excess excavated material off the site.
5. Contractor shall provide drainage holes filled with gravel if directed by the Engineer.

(d) Tree and Shrub Planting

1. Plants shall be set in excavations at the same level at which they were grown. Adjust plants and backfill with topsoil.
2. Burlap around balled and burlapped (B&B) plants shall be opened completely at the top, pulled back and tucked around the sides of the ball.
3. 10 grams (of actual fertilizer nutrients) for each ½" of plant diameter and 5 grams actual fertilizer nutrients) for every gallon of container material shall be placed firmly in the backfill mixture.
4. Topsoil shall be placed in lifts of 12 inches around root balls and firmly tamped.

(e) Tree and Shrub Saucers of Soil

1. Trees. A rim of soil 4" high, 8" wide and 4 feet in diameter shall be formed round each tree to form a saucer.
2. Shrub masses and hedges. A rim of soil 2" high, 4" wide and 1 foot beyond the outermost stems shall be formed around shrub masses and hedges to form a saucer.

(f) Tree and Shrub Watering

1. Plants shall be thoroughly watered-in within 4 hours of installation. Watering and other maintenance shall continue per these specifications.
2. Pre-emergent Herbicide. All areas for mulch shall be treated with pre-emergent herbicide according to approved application rate prior to placement of mulch.

(g) Tree and Shrub Mulch

1. Core 4” deep around perimeter of planting area.
2. Remove existing unwanted vegetation from area to be mulched.
3. Mulch 4” deep with medium textured wood mulch over entire area within surrounding pavements. Mulch shall be held back 3-4” from shrub stems.
4. Existing trees shall be mulched in same manner as above.

(h) Gravel Mulch over Tree in Grate

1. Install geotextile fabric over entire soil surface and extend 2” up the perimeter sides of the concrete tree grate border.
2. Place gravel as shown on project plans, 2” deep.

(i) Tree and Shrub Pruning

1. Pruning and limbing-up shall be done when plants are dormant, except for mechanical damage that will be repaired immediately, using good nursery practices.
2. Plants shall be pruned to remove any damaged branches, irregular branching, crossed limbs, etc. and result in a symmetric shape typical of the species. Trimmings shall be disposed of off-site.
3. Shade trees shall be limbed-up 1/3 the height of the tree or a maximum of 7-8 feet above the ground.

(j) Plant Support

1. Tree staking is not required at the time of planting. If trees begin to lean for any reason, right the tree and stake according to project drawings.

(k) Watering

1. After the initial installation and associated watering, Contractor shall set irrigation system to provide optimal watering for plants. Contractor shall continue watering of plants according to maintenance requirements.

(l) Preparation of Flower and Ground Cover Beds

1. Beds shall be tilled to a depth of 8 inches forming particles no greater than 1 inch.
2. Beds shall be covered with a 2-inch depth of peat moss and a 2-inch depth of manure, and tilled again to a depth of 8 inches to thoroughly mix the materials.

(m) Flower and Ground Cover Beds Planting

1. Plants shall be set on prepared soil at the elevation at which they were grown and firmly tamped-in.
2. Areas shall be treated with pre-emergent herbicide according to product recommendations prior to placement of mulch.
3. Beds shall be covered with 2 inches of fine textured wood mulch.

(n) Watering

1. Beds shall be thoroughly watered-in within 4 hours of installation.
2. Watering and other maintenance shall continue until project acceptance.

(o) Maintenance

1. Duration
   a. Contractor shall carefully monitor and maintain the condition of plant material for a period of 45 days or until project acceptance, whichever is longer.

2. Watering
   a. Water with the amount and frequency to optimize plant establishment. Plants generally require 10 gallons for each tree every 4 days and 5 gallons for every shrub every 4 days, and 5 gallons per square yard of groundcover beds every 2 days. Water in a manner to achieve infiltration of water, avoiding run-off.

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3. Weeding
   a. Contractor shall keep planting areas weed-free.
   b. Generally, weeding shall be done by hand pulling. Any use of herbicides must be approved by the Engineer in advance and applicator must be licensed for commercial use of herbicides.

4. Insects, Disease, Fungus
   a. Should problems with the plant material develop such as insect infestation, disease or fungus, Contractor shall immediately notify the Engineer and discuss remedies available.
   b. Contractor shall proceed expeditiously with selected treatment of affected areas, and continue treatment until the problem is resolved.
   c. Contractor shall have state licensed applicators for treatment products as needed.

5. Fill of Settlement Areas
   a. Any areas that settle shall be restored to finish grade by filling with top soil and replacing surface improvements.

Basis of Payment: Trees and Shrubs will be paid for at the contract unit price per each for TREES, SHRUBS, AND EVERGREENS of the species, root type, and plant size specified. Payment for work shall include all labor, equipment, and materials necessary to complete the work as specified herein and to the satisfaction of the Engineer. The payment schedule shall be in accordance with Article 253.17 of the Standard Specifications. Mulch, fertilizer, and maintenance will not be paid for separately, but considered included in the cost of the item being planted.

Perennial Plants will be paid for at the contract unit price per unit (100 plants) for PERENNIAL PLANTS, of the type and size specified. Payment for work shall include all labor, equipment, and materials necessary to complete the work as specified herein and

to the satisfaction of the Engineer. Mulch, fertilizer, and maintenance will not be paid for separately, but considered included in the cost of the item being planted.

Top soil planting pits will be paid for at the contract unit price per cubic yard for TOPSOIL FURNISH AND PLACE, SPECIAL which price shall include equipment, materials and labor to complete the work as specified and to the satisfaction of the Engineer. Excavation of unsuitable soil will not be paid for separately but considered included in the cost of this item.

CORED DRAIN HOLES: This work consists of providing drain holes and filling with gravel.

Submittals:

(a) One-pound sample of pea gravel for drain holes.

Products and Materials:

(a) Gravel: 3/8”- 1/2” pea gravel. No limestone content allowed.

Construction Requirements:

(a) Time of Operation: After plant pits have been excavated and prior to planting and placing topsoil.
(b) Core 8” diameter drainage hole at bottom of excavation according to project plans.
(c) Fill hole with gravel.

Measurement: This work will be measured by the number of drain holes provided.

Basis of Payment: Drainage holes will be paid for at the contract unit price per each for CORED DRAIN HOLES, which includes drilling hole and backfilling with gravel.

SITE FURNISHINGS: This work consists of furnishing and installing the following site furnishings as detailed in the plans and as directed by the Engineer: Benches, Trash Receptacles, and Tree Grates.

Submittals:

(a) The following items shall be submitted and approved prior to operations:

1. Product cut sheets for each item.

Warranty: Product warranties shall apply.

Products:

(a) Benches

1. 6’ bench with horizontal steel slats, no back.
2. All fabricated metal components shall be poly-vinyl coated according to manufacturer’s specifications.
3. Benches shall be surface mounted by 3/8” anchor bolts, 4 for each bench.
4. Benches shall be Estate Series low profile bench, model # ES525S as manufactured by Wabash Valley Manufacturing, Inc. 505 E. Main Street, P.O. Box 5, Silver Lake, IN 46982, 1-800-253-8619, http://www.wabashvalley.com to match Town Square and Main Street projects.
5. All steel components to be certified American steel as approved by IDOT.

(b) Trash Receptacles

1. Trash Receptacles shall be 31-1/4” high with a 21” base and 36-gallon capacity with lid.
2. All fabricated metal components shall be shotblasted, etched, phosphatized, preheated and electrostatically powder-coated with TGIS polyester power coatings.
3. Rain Bonnet Lid shall be attached to the frame with two vinyl coated steel cables.
4. Liner shall be high-density plastic formed to fit the receptacle.
5. Trash Receptacles shall be Production Series, PRS-36 with Rain Bonnet lid, color black as manufactured by Victor Stanley, Inc, P.O. Drawer 330, Dunkirk, MD 20754, (t) 800-368-2573, www.victorstanley.com to match Town Square and Main Street projects.
6. All steel components to be certified American steel as approved by IDOT.

(c) Tree Grates

1. Tree grates shall be 36” wide by 60” long in two sections with ½” maximum square opening for pedestrian safety and ADA compliance. Tree opening to be 18” square.
2. Material shall be cast from 100% recycled iron, unfinished.
3. Tree grates shall be Distinctive Creations Model #R-8820 as manufactured by Neenah Foundry, 2121 Brooks Avenue, Neenah, WI 54956, (t) 800-558-5075, www.neenahfoundry.com to match Town Square and Main Street projects.
4. All steel components to be certified American steel as approved by IDOT.

(d) All steel components shall be in accordance with Article 106.01 – Source of Supply and Quality Requirements, IDOT Standard Specifications.

(e) Concrete for footings shall be in accordance with Section 1020 Portland Cement Concrete, Type SI.

(f) Reinforcement shall be in accordance with Section 1006.10 Concrete Reinforcement Bars, Fabric, and Strand.

(g) Aggregate shall be in accordance with Section 1003 Fine Aggregates and Section 1004 Coarse Aggregates.

Construction Requirements:

(a) Benches shall be set on pavement as shown on plans and anchored using 3/8" anchor bolts. Bolts shall be securely set in concrete with epoxy grout recommended by manufacturer.

(b) Trash Receptacles shall be set on pavement as shown on plans and anchored with ½" anchor bolt. Bolts shall be securely set in concrete with epoxy grout recommended by manufacturer.

(c) Tree grate frame shall be formed and poured according to plans. Grates shall be carefully set on frame as shown on plans.

(d) Any scuffing or other surface marring shall be repaired to the satisfaction of the Engineer.

Basis of Payment: Benches will be paid for at the contract unit price per each for BENCHES which price shall include all equipment, materials and labor, including base, to complete this item as specified and to the satisfaction of the Engineer.

Trash Receptacles will be paid for at the contract unit price per each for TRASH RECEPTACLES which price shall include all equipment, materials and labor to complete this item as specified and to the satisfaction of the Engineer.

Tree Grates will be paid for at the contract unit price per each for TREE GRATES which price shall include all equipment, materials and labor, including tree grate frame and concrete frame, to complete this item as specified and to the satisfaction of the Engineer.

ORNAMENTAL FENCE: This work consists of furnishing and installing fabricated decorative steel fencing as detailed in the plans and as directed by the Engineer.

Submittals:

(a) The following items shall be submitted and approved prior to operations:

1. Product cut sheets,
2. Fully detailed shop drawings including Engineer sealed footing drawings.

Warranty: Product warranties shall apply.

Products:

(a) Ornamental Fence

1. Ornamental steel fence, 4' high with 3 rails, rings and top ornamentation, nominal 48" ht., 95-1/2" long.
2. Posts 2-1/2" square.
3. Brackets BB310 Commercial Line Boulevard.
4. 5" square x ¼" thick powder coated steel post base anchor plate to secure fence post to concrete as manufactured by fence manufacturer.
5. Fence and posts galvanized iron, with epoxy base coating, color to be black. Hardware to match.
6. Fence to match product used on the Town Square Improvement and South Main Street Improvement projects.
7. Fence shall be Aegis Plus, Majestic Style as manufactured by Ameristar, 1555 N. Mingo Rd., Tulsa, OK 74116, (t) 800/321-8724 www.ameristarfence.com.

(b) Fence Materials

1. Steel for fence framework (tubular pickets, rails and posts) shall conform to the requirements of ASTM A924/A924M with minimum yield strength of 50,000 psi. The steel shall be hot-dip galvanized to meet requirements of ASTM A653/A653M with a minimum zinc coating weight of 0.90 oz/ft3, Coating Designation G-90.
2. Material for pickets shall be 3/4" square x 16 Ga. tubing. Cross-sectional shall be 1.5" square with minimum thickness of 14 Ga. Picket holes shall be spaced 4.7" o.c. Picket retaining rods shall be 0.125" diameter galvanized steel. Posts shall be a minimum 2-1/2" square x 12 Ga. High quality PVC grommets shall be supplied to seal all picket-to-rail intersection.
3. The manufactured galvanized framework shall be subjected to the PermaCoat thermal stratification coating process. Coating shall meet manufacturer's published Performance Standards.
4. All steel components to be certified American steel as approved by IDOT.

(c) Fence Fabrication

1. Pickets, rails and posts shall be pre-cut to specified lengths. Rails shall be pre-punched to accept pickets.
2. Grommets shall be inserted into the pre-punched holes in the rails, and pickets shall be inserted through the grommets so that pre-drilled holes in pickets align with the internal upper raceway of the rails. Retaining rods shall be inserted into each rail so they pass through the pre-drilled holes in each picket to complete the assembly.
3. Completed panels shall be capable of supporting a 400 lb. load applied mid-span without deformation.

(d) All steel components shall be in accordance with Article 106.01 – Source of Supply and Quality Requirements, IDOT Standard Specifications.

(e) Concrete for footing shall be in accordance with Section 1020 – Portland Cement Concrete, Type SI, IDOT Standard Specifications.

(f) Reinforcement shall be in accordance with Section 1006.10 – Concrete Reinforcement Bars, Fabric, and Strand, IDOT Standard Specifications.

Construction Requirements:

(a) Fence Footing

1. Excavate for concrete footings to dimensions shown on plans.
2. Any excavations left open to be well secured.
3. Pour concrete curb footing.
4. Set steel fence posts using anchor base plates according to plan and manufacturer's recommendations.

(b) Fence Panels

1. Panels shall be securely attached. Planes shall be straight and true. Panels shall be handled to avoid scrapes, scratches and other damage. Damaged panels may be rejected.
2. Attach panels to posts using panel brackets and bolt-on hardware supplied by manufacturer.

(c) Finishing

1. Any minor scuffing shall be touched-up with coating to match recommended by fence manufacturer. Unacceptable repairs may be rejected.

Basis of Payment: This work will be paid for at the contract unit price per foot for ORNAMENTAL FENCE which price shall include all equipment, materials and labor, including foundation, to complete this item as specified and to the satisfaction of the Engineer.

BOLLARDS: This work consists of furnishing and installing cast aluminum bollards as detailed in the plans and as directed by the Engineer.

Submittals:

(a) The following items shall be submitted and approved prior to operations:

1. Product cut sheets.

Warranty: For a period of two years following acceptance of project contractor shall warranty against faulty installation and deterioration of bollards. Bollards also shall have the manufacturer's 5-year limited warranty.

Products:

(a) Bollards

1. Bollards shall be cast aluminum alloy, with a floor cast as an integral part of the base and bollard cap welded in place. The lower base shall be octagonal that transitions to a fluted upper section. Base diameter shall be 16" and overall height shall be 58-1/2". Finish shall be black.
2. Four hot dipped galvanized "L" type non-quick release anchor bolts shall be provided for each bollard.
3. Bollards shall be Manchester custom unlighted bollard Model #6701B-58.5"/BK as manufactured by Sternberg Lighting, 555 Lawrence Ave, Roselle, IL 60172, (t) 847-588-3400, www.sternberglighting.com

(b) Concrete for footing shall be in accordance with Section 1020 – Portland Cement Concrete, Type SI, IDOT Standard Specifications.

(c) Reinforcement shall be in accordance with Section 1006.10 – Concrete Reinforcement Bars, Fabric, and Strand, IDOT Standard Specifications.

Construction Requirements

(a) Bollard shall be set in footings as shown on plans using anchor bolts provided by manufacturer. Bolts shall be securely set in concrete with epoxy grout recommended by manufacturer.

(b) Any scuffing or surface marring shall be repaired to the satisfaction of the Engineer.

Basis of Payment: This work will be paid for at the contract unit price per each for BOLLARDS which price shall include all equipment, materials and labor, including foundation, to complete this item as specified and to the satisfaction of the Engineer.

ORNAMENTAL STREETSCAPE STRUCTURE: This work consists of furnishing and installing a prefabricated ornamental streetscape arch structure as detailed in the plans and as directed by the Engineer.

Submittals:

(a) The following items shall be submitted and approved prior to operations:

1. Shop drawings for structure.

2. Sealed plans for structure, anchors and footings.
3. Shop drawings for LED light fixtures.

Warranty: For a period of two years following acceptance of project contractor shall warranty against faulty installation and deterioration. Any applicable product warranties shall also apply.

Products:

(a) Ornamental Streetscape Structure

1. Structure shall be rolled steel construction, prefabricated, drilled and packaged for on-site erection.
2. Contractor shall provide fabricator with project plans and specifications, wiring plan and outlet placement and all other necessary information.
3. All electrical wiring shall be inside structural members. Contractor shall wire prior to structure installation.
4. Steel components shall be shotblasted, etched, phosphatized, preheated and electrostatically powder-coated with TGIS polyester power coatings. Color shall be black.

(b) LED Light strand fixtures

1. Strand of white LED nodes, custom 32’ length (2 strands for 64’ total length) and 12” on-center node spacing.
2. Optional black mounting track, snap-on spacers, and housing.
3. Semi-frosted marquee lens, 2700K warm light.
4. eW Flex SLX model number 500-000007-02 (32’ length) with the Marquee lens kit 999-000373-02
5. Contractor shall provide appropriate power supply and lighting controller to provide a complete working system.
6. Lights shall be controlled by photocell synchronized with street light fixtures.

(c) All steel components shall be in accordance with Article 106.01 – Source of Supply and Quality Requirements, IDOT Standard Specifications.

(d) Concrete for footing shall be in accordance with Section 1020 Portland Cement Concrete, Type SI.

(e) Reinforcement shall be in accordance with Section 1006.10 Concrete Reinforcement Bars, Fabric, and Strand.

(f) A lockable GFI 2-outlet receptacle shall be mounted at both bases.

Construction Requirements:

(a) Structure shall be installed according to fabricator's recommendations.

(b) All field assembly fasteners shall be stainless steel huck bolts.

(c) Anchors and footings shall be constructed according to sealed plans provided by Contractor.

(d) Contractor shall take particular care while erecting structure to avoid flexing of structure and cracking of the powder coat. If cracking of the powder coat occurs the structure shall be disassembled and have the powder coating process repeated.

(e) Lights and all associated items shall be installed according to plans and manufacturer's recommendations.

Basis of Payment: Structure will be paid for at the contract unit price of lump sum for ORNAMENTAL STREETSCAPE STRUCTURE which price shall include all equipment, materials and labor, including foundation and LED lights, to complete this item as specified and to the satisfaction of the Engineer.

ORNAMENTAL STREET SIGN POST, COMPLETE: This work consists of furnishing and installing decorative cast aluminum sign poles, aluminum frames, and sign panels as specified in the plans and as directed by the Engineer.

Submittals:

(a) The following items shall be submitted and approved prior to operations:

1. Product cut sheets.

Warranty: For a period of two years following acceptance of project Contractor shall warranty against faulty installation and deterioration of sign frames. Decorative poles also shall have the manufacturer's 5-year limited warranty.

Products:

(a) Ornamental Street Sign Post, Complete

1. Ornamental base and post shall be Birmingham style 7710T5/BCC4 with a 4" ball center cap. Heights shall vary by location, see Signage and Striping Sheets for details.
2. Posts shall be manufactured by Sternberg Lighting, 555 Lawrence Ave. Roselle, IL 60172, 847/588-3400, www.sternberglighting.com. Post and base shall be park green.

(b) Signs

1. Signs shall meet all applicable IDOT specifications and be according to Signage and Striping Sheets of the project plans.

(c) Sign Frames

1. Sign Frames shall be one-piece fully backed aluminum frames matching size and shape of signs, Color to match frames used on Town Square and South Main Street projects.
2. Sign Frames shall be manufactured by Sternberg Lighting, 555 Lawrence Ave, Roselle, IL 60172, 847/588-3400, www.sternberglighting.com.

(d) All metal components shall be in accordance with Article 106.01 – Source of Supply and Quality Requirements, IDOT Standard Specifications.

(e) Concrete for footing shall be in accordance with Section 1020 – Portland Cement Concrete, Type SI, IDOT Standard Specifications.

(f) Reinforcement shall be in accordance with Section 1006.10 – Concrete Reinforcement Bars, Fabric, and Strand, IDOT Standard Specifications.

Construction Requirements:

(a) Poles shall be set using anchor bolts provided by manufacturer. Bolts shall be securely set in concrete with epoxy grout recommended by manufacturer.

(b) Sign frames and signs shall be installed on pole according to manufacturer's installation instructions.

(c) Any scuffing or surface marring shall be repaired to the satisfaction of the Owner.

Basis of Payment: This work will be paid for at the contract unit price per each for ORNAMENTAL STREET SIGN POST, COMPLETE which price shall include all equipment, materials, and labor, including post, sign panel, frame, and footing to complete this item as specified and to the satisfaction of the Engineer. Sign Panels will not be measured for payment separately but considered included in the cost of this item.

CONCRETE RAMPS: This work shall consist of constructing concrete ramps at the location shown on the plans.

This work shall be performed in accordance with the applicable portions of Section 424 of the Standard Specifications and with the details shown in the plans.

Basis of Payment: Concrete ramps will be paid for at the contract unit price per square foot, measured as specified, for PORTLAND CEMENT CONCRETE SIDEWALK, 4 INCH, which price shall be payment in full for all labor, equipment and materials,

including concrete, reinforcement bars, backfill, expansion joints, etc. required to complete this item as specified and as directed by the Engineer.

DECORATIVE STEEL RAILING: This work shall consist of furnishing and installing decorative handrail at the locations shown in the plans and described in this Special Provision. Except as noted herein, this work shall be in accordance with the applicable provisions of Section 509 of the Standard Specifications.

Exact location and configuration will be determined at the time of construction. Prior to ordering and manufacturing handrails, the contractor will be responsible for field measuring and submitting shop drawings for review and approval by the Engineer.

Mounting means and methods shall be determined by the contractor and approved by the Engineer at the time of construction.

Railing shall be finished commercial strength steel with e-coat system including a zinc coating, zinc phosphate coating, epoxy primer, and acrylic topcoat to match ORNAMENTAL FENCE as specified elsewhere herein. All attachment hardware shall be finished to match steel railing.

All steel components shall be in accordance with Article 106.01 – Source of Supply and Quality Requirements, IDOT Standard Specifications.

Basis of Payment: This work shall be paid for at the contract unit price per foot for DECORATIVE STEEL RAILING, which price shall include all materials, fabrication, coatings, transportation and erection necessary to complete the work to the satisfaction of the Engineer. The measurement will be the overall length along the top longitudinal railing member through all posts and gaps.

BASEMENT VAULTS: At locations where vaults exist under existing sidewalk which is to be replaced, the existing sidewalk shall be removed, all openings in the wall at the building line shall be sealed closed with a concrete retaining wall, the vault filled with trench backfill, and new sidewalk then constructed.

Details of Construction. This sidewalk to be removed may consist of plain concrete sidewalk or reinforced concrete sidewalk. The sidewalk removal at the building lines shall be in accordance with the details shown in the plans and as directed by the Engineer. The Contractor shall take care not to damage store fronts, bearing walls, supporting beams, or any other supporting members vital to the structural support of the building or the aesthetic value of the façade of the building.

All openings in the bearing wall at the building line shall be closed by constructing a concrete retaining wall adjacent to the opening in accordance with the detail shown in the plans, and the applicable portions of Section 503 of the Standard Specifications. The wall shall be formed and constructed in such a manner so that no additional pressures are exerted on the bearing wall. Steel forms with metal snap ties will be

permissible. After the forms have been removed, the wall shall be temporarily braced to prevent tipping toward the street until the vault is backfilled.

All loose material in partition walls and the retaining wall at the street line shall be removed and disposed of prior to filling the vault. All voids under the pavement shall be filled with compacted trench backfill. Concrete floors in the vaults shall be broken for drainage purposes. The vault shall then be filled with trench backfill to the subgrade elevation of the proposed sidewalk.

The P.C.C. sidewalk shall be constructed to the lines and grades determined by the Engineer at the time of construction, in accordance with the details shown in the plans and in accordance with the applicable portions of Section 424 of the Standard Specifications. The joint at the building line shall be sealed in accordance with the details shown in the plans.

Any damage to bearing walls or buildings caused due to the Contractor's operations, shall be replaced or repaired by the Contractor at no additional cost to the Department.

Disposal of Materials. All excavation for the retaining wall, broken concrete, bricks, or other debris removed from the vaults shall be disposed of outside the limits of the right of way at locations approved by the Engineer.

Frames and grates removed with existing sidewalk and not to be incorporated into the improvement shall become the property of the City of Jacksonville. The frames and grates shall be stockpiled at a location designated by the Contractor for removal by City forces.

Basis of Payment. Sidewalk removed shall be paid for at the contract unit price per square foot, measured in place, for SIDEWALK REMOVAL, which price includes payment in full for the removal and disposal of all concrete or reinforced concrete sidewalk. The concrete retaining wall shall be paid for at the contract unit price per square foot of surface area, measured from the top of the footing to the top of the wall, for RETAINING WALL, SPECIAL, which price shall include all Class SI Concrete, reinforcement bars, excavation, concrete, and reinforcement bars, for footings, forming and bracing the wall, and all other material and labor required to complete the wall. Trench backfill shall be paid for at the contract unit price per cubic yard for TRENCH BACKFILL, which price shall include all labor, material, and equipment required to complete this item. The proposed sidewalk shall be paid for at the contract unit price per square foot for PORTLAND CEMENT CONCRETE SIDEWALK, 4 INCH, measured in place, which price includes payment in full for all material, labor, equipment, joints, etc. required to complete this item.

The removal and disposal of all debris removed from the vaults will not be paid for separately but shall be included in the cost of the concrete retaining wall and backfill.

LIGHTING CONTROLLER, SPECIAL: This work shall consist of furnishing and installing an electrical lighting controller, in accordance with the details in the plans, and

Sections 825 and 1068.01 of the Standard Specifications for Road and Bridge Construction.

The controller enclosure shall be mounted on a concrete foundation. The enclosure shall be unpainted aluminum and have a single door.

The lighting controller shall utilize a photocell for lighting operation.

Basis of Payment: This work will be paid for at the contract unit price each for LIGHTING CONTROLLER, SPECIAL, as specified herein.

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

SPECIAL PROVISION FOR INSURANCE

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

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

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

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

State of Illinois
DEPARTMENT OF TRANSPORTATION
Bureau of Local Roads & Streets

SPECIAL PROVISION FOR FILLING HMA CORE HOLES WITH NON-SHRINK GROUT

Effective: January 1, 2008

All references to Sections and Articles in this Special Provision shall be construed to mean specific Sections and Articles in the Standard Specifications for Road and Bridge Construction adopted by the Department of Transportation.

Add the following after the first paragraph of Article 406.07(c) of the Standard Specifications:

> "Upon completion of coring for density testing, all free water shall be removed from the core holes prior to filling. All core holes shall be filled with a non-shrink grout from the Department's approved list, which shall be mixed in a separate container prior to placement in the hole. Only enough water to permit placement and consolidation by rodding shall be used, and the material shall be struck-off flush with the adjacent pavement."

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

SPECIAL PROVISION FOR CONSTRUCTION AND MAINTENANCE SIGNS

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.

State of Illinois
DEPARTMENT OF TRANSPORTATION
Bureau of Local Roads & Streets

SPECIAL PROVISION FOR GROWTH CURVE

Effective: March 1, 2008
Revised: January 1, 2010

All references to Sections and Articles in this Special Provision shall be construed to mean specific Sections and Articles in the Standard Specifications for Road and Bridge Construction adopted by the Department of Transportation.

The Contractor shall perform a growth curve at the beginning of placement of each type of mix and each lift. The growth curve for each type of mix and each lift shall be performed within the first 200 tons (180 metric tons). If an adjustment is made to the specific mix design, the Engineer reserves the right to request an additional growth curve and supporting tests at the Contractor's expense.

Compaction of the growth curve shall commence immediately after the course is placed and at a temperature of not less than 280 ºF (140 ºC). The growth curve, consisting of a plot of lb/cu ft (kg/cu m) vs. number of passes with the project breakdown roller, shall be developed. Roller speed during the growth curve testing shall be the same as the normal paving operation. This curve shall be established by use of a nuclear gauge. Tests shall be taken after each pass until the highest lb/cu ft (kg/cu m) is obtained. This value shall be the target density provided the HMA Gyratory air voids are within acceptable limits. If the HMA Gyratory air voids are not within the specified limits, corrective action shall be taken, and a new target density shall be established.

A new growth curve is required if the breakdown roller used on the growth curve is replaced with a new roller during production. The target density shall apply only to the specific gauge used. If additional gauges are to be used to determine density specification compliance, the Contractor shall establish a unique minimum allowable target density from the growth curve location for each gauge.

At least one core sample per day shall be taken at a location specified by the Engineer. Core densities will be determined using the Illinois-Modified AASHTO T 166 or T 275 procedure by the Department. The core density shall be according to Articles 1030.05(d)(4) and (d)(7). The QA Manager is responsible for assuring and documenting that the determined number of roller passes has been accomplished. The Engineer reserves the right to take core samples at any time to verify density from the nuclear gauge,

All lifts and confined longitudinal joint edges shall be compacted to an average nuclear gauge density of not less than 95 percent nor greater than 102 percent of the target density obtained on the growth curve. Unconfined longitudinal joint edges shall be compacted to an average nuclear gauge density of not less than 93 percent nor greater than 102 percent of the target density obtained on the growth curve. The average nuclear gauge density shall be based on tests representing one day's production.

Quality Control density tests shall be performed at randomly selected locations within 1/2 mile (800 m) intervals per lift per lane. In no case shall more than one half day's production be completed without density testing being performed. 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 2 in. (50 mm) from each pavement edge.

If the Contractor is not controlling the compaction process and is making no effort to take corrective action, the operation shall stop as directed by the Engineer.

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION
Effective: August 1, 2012 Revised: February 2, 2017

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

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

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

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

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

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

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

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

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

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

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

COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017
Revised: April 1, 2019

Revise Article 107.40(b) of the Standard Specifications to read:

"(b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows.

(1) Minor Delay. A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.

(2) Major Delay. A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.

(3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days."

Revise Article 107.40(c) of the Standard Specifications to read:

"(c) Payment. Payment for Minor, Major, and Reduced Rate of Production Delays will be made as follows.

(1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).

(2) Major Delay. Labor will be the same as for a minor delay.

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the

Contractor's yard or another job and the cost to re-mobilize, whichever is less. Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

(3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven calendar days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Payment for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be determined according to Article 109.13."

Revise Article 108.04(b) of the Standard Specifications to read:

"(b) No working day will be charged under the following conditions.

(1) When adverse weather prevents work on the controlling item.

(2) When job conditions due to recent weather prevent work on the controlling item.

(3) When conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; delay by the Department in making the site available; or delay in furnishing any items required to be furnished to the Contractor by the Department prevents work on the controlling item.

(4) When delays caused by utility or railroad adjustments prevent work on the controlling item.

(5) When strikes, lock-outs, extraordinary delays in transportation, or inability to procure critical materials prevent work on the controlling item, as long as these delays are not due to any fault of the Contractor.

(6) When any condition over which the Contractor has no control prevents work on the controlling item."

Revise Article 109.09(f) of the Standard Specifications to read:

"(f) Basis of Payment. After resolution of a claim in favor of the Contractor, any adjustment in time required for the work will be made according to Section 108. Any adjustment in the costs to be paid will be made for direct labor, direct materials, direct equipment, direct jobsite overhead, direct offsite overhead, and other direct costs allowed by the resolution. Adjustments in costs will not be made for interest charges, loss of anticipated profit, undocumented loss of efficiency, home office overhead and unabsorbed overhead

other than as allowed by Article 109.13, lost opportunity, preparation of claim expenses and other consequential indirect costs regardless of method of calculation.

The above Basis of Payment is an essential element of the contract and the claim cost recovery of the Contractor shall be so limited."

Add the following to Section 109 of the Standard Specifications.

"**109.13 Payment for Contract Delay.** Compensation for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be allowed when such costs result from a delay meeting the criteria in the following table.

Contract Type	Cause of Delay	Length of Delay
Working Days	Article 108.04(b)(3) or Article 108.04(b)(4)	No working days have been charged for two consecutive weeks.
Completion Date	Article 108.08(b)(1) or Article 108.08(b)(7)	The Contractor has been granted a minimum two week extension of contract time, according to Article 108.08.

Payment for each of the various costs will be according to the following.

(a) Escalated Material and/or Labor Costs. When the delay causes work, which would have otherwise been completed, to be done after material and/or labor costs have increased, such increases will be paid. Payment for escalated material costs will be limited to the increased costs substantiated by documentation furnished by the Contractor. Payment for escalated labor costs will be limited to those items in Article 109.04(b)(1) and (2), except the 35 percent and 10 percent additives will not be permitted.

(b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.

(1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

Original Contract Amount	Supervisory and Administrative Personnel
Up to $5,000,000	One Project Superintendent
Over $ 5,000,000 - up to $25,000,000	One Project Manager, One Project Superintendent or Engineer, and One Clerk
Over $25,000,000 - up to $50,000,000	One Project Manager, One Project Superintendent, One Engineer, and

	One Clerk
Over $50,000,000	One Project Manager, Two Project Superintendents, One Engineer, and One Clerk

(2) Home Office and Unabsorbed Overhead. Payment for home office and unabsorbed overhead will be calculated as 8 percent of the total delay cost.

(c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid for according to Article 109.04.

When an extended traffic control adjustment is paid under this provision, an adjusted unit price as provided for in Article 701.20(a) for increase or decrease in the value of work by more than ten percent will not be paid.

Upon payment for a contract delay under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this provision."

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DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000
Revised: March 2, 2019

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory.

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

CONTRACTOR ASSURANCE. The Contractor makes the following assurance and agrees to include the assurance in each subcontract the Contractor signs with a subcontractor.

> The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
>
> (a) Withholding progress payments;
>
> (b) Assessing sanctions;
>
> (c) Liquidated damages; and/or
>
> (d) Disqualifying the Contractor from future bidding as non-responsible.

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR Part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a

good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. The determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates, in the absence of unlawful discrimination and in an arena of fair and open competition, DBE companies can be expected to perform 6.00 % of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

(a) The bidder documents enough DBE participation has been obtained to meet the goal or,

(b) The bidder documents a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES. Bidders shall consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217) 785-4611, or by visiting the Department's website at:
http://www.idot.illinois.gov/doing-business/certifications/disadvantaged-business-enterprise-certification/il-ucp-directory/index.

BIDDING PROCEDURES. Compliance with this Special Provision is a material bidding requirement and failure of the bidder to comply will render the bid not responsive.

The bidder shall submit a DBE Utilization Plan (form SBE 2026), and a DBE Participation Statement (form SBE 2025) for each DBE company proposed for the performance of work to achieve the contract goal, with the bid. If the Utilization Plan indicates the contract goal will not be met, documentation of good faith efforts shall also be submitted. The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor is selected over a DBE for work on the contract. The required forms and documentation must be submitted as a single .pdf file using the "Integrated Contractor Exchange (iCX)" application within the Department's "EBids System".

The Department will not accept a Utilization Plan if it does not meet the bidding procedures set forth herein and the bid will be declared not responsive. In the event the bid is declared not responsive, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty and may deny authorization to bid the project if re-advertised for bids.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan is approved. All information submitted by the bidder must be complete, accurate and adequately document enough DBE participation has been obtained or document the good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. This means the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts the bidder has made. Mere *pro forma* efforts, in other words efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

(a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases and will be considered by the Department.

(1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.

(2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to perform these work items with its own forces.

(3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

(4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable. In accordance with the above Bidding Procedures, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

(5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.

(6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.

(7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.

(8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.

(b) If the Department determines the bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided it is otherwise eligible for award. If the Department determines the

bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification will also include a statement of reasons for the adverse determination. If the Utilization Plan is not approved because it is deficient as a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no more than a five calendar day period to cure the deficiency.

(c) The bidder may request administrative reconsideration of an adverse determination by emailing the Department at "DOT.DBE.UP@illinois.gov" within the five calendar days after the receipt of the notification of the determination. The determination shall become final if a request is not made on or before the fifth calendar day. A request may provide additional written documentation or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be reviewed by the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person to consider all issues of documentation and whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR Part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR Part 26.55, the provisions of which govern over the summary contained herein.

(a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.

(b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.

(c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.

(d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:

(1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.

(2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission is receives as a result of the lease arrangement.

(e) DBE as a material supplier:

(1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.

(2) 100 percent goal credit for the cost of materials of supplies obtained from a DBE manufacturer.

(3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a DBE regular dealer or DBE manufacturer.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the DBE Participation Commitment Statement.

(a) NO AMENDMENT. No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be emailed to the Department at DOT.DBE.UP@illinois.gov.

(b) CHANGES TO WORK. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A or AER 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, a new Request for Approval of Subcontractor will not be required. However, the Contractor must document efforts to assure the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

(c) SUBCONTRACT. The Contractor must provide copies of DBE subcontracts to the Department upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.

(d) ALTERNATIVE WORK METHODS. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:

(1) The replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or

(2) The DBE is aware its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or

(3) The DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.

(e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in this Special Provision. The Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains the Department's written consent as provided in subsection (a) of this part. Unless Department consent is provided for termination of a DBE subcontractor, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the DBE in the Utilization Plan.

As stated above, the Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor, with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

For purposes of this paragraph, good cause includes the following circumstances:

(1) The listed DBE subcontractor fails or refuses to execute a written contract;

(2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the Contractor;

(3) The listed DBE subcontractor fails or refuses to meet the Contractor's reasonable, nondiscriminatory bond requirements;

(4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;

(5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law.

(6) The Contractor has determined the listed DBE subcontractor is not a responsible contractor;

(7) The listed DBE subcontractor voluntarily withdraws from the projects and provides written notice to the Contractor of its withdrawal;

(8) The listed DBE is ineligible to receive DBE credit for the type of work required;

(9) A DBE owner dies or becomes disabled with the result that the listed DBE subcontractor is unable to complete its work on the contract;

(10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the Contractor can self-perform the work for which the DBE contractor was engaged or so that the Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated or fails to complete its work on the Contract for any reason, the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal. The good faith efforts shall be documented by the Contractor. If the Department requests documentation under this provision, the Contractor shall submit the documentation within seven days, which may be extended for an additional seven days if necessary at the request of the Contractor. The Department will provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

(f) FINAL PAYMENT. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than 30 calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Resident Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.

(g) ENFORCEMENT. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be

made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

(h) RECONSIDERATION. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department. The result of the reconsideration process is not administratively appealable to the U.S. Department of Transportation.

80029

DISPOSAL FEES (BDE)

Effective: November 1, 2018

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

"(5) Disposal Fees. When the extra work performed includes paying for disposal fees at a clean construction and demolition debris facility, an uncontaminated soil fill operation or a landfill, the Contractor shall receive, as administrative costs, an amount equal to five percent of the first $10,000 and one percent of any amount over $10,000 of the total approved costs of such fees.

(6) Miscellaneous. No additional allowance will be made for general superintendence, the use of small tools, or other costs for which no specific allowance is herein provided.

(7) Statements. No payment will be made for work performed on a force account basis until the Contractor has furnished the Engineer with itemized statements of the cost of such force account work. Statements shall be accompanied and supported by invoices for all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices, the Contractor shall furnish an affidavit certifying that such materials were taken from his/her stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

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

a. Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman. Payrolls shall be submitted to substantiate actual wages paid if so requested by the Engineer.

b. Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.

c. Quantities of materials, prices and extensions.

d. Transportation of materials.

e. Cost of property damage, liability and workmen's compensation insurance premiums, unemployment insurance contributions, and social security tax.

(8) Work Performed by an Approved Subcontractor. When extra work is performed by an approved subcontractor, the Contractor shall receive, as administrative costs, an amount equal to five percent of the total approved costs of such work with the minimum payment being $100.

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

80402

ELECTRIC SERVICE INSTALLATION (BDE)

Effective: January 1, 2020

Revise Article 804.04 of the Standard Specifications to read:

"**804.04 Installation.** The electric service installation shall extend from the existing utility owned transformer to the point of cable termination of the incoming power at the controller enclosure.

The Contractor shall ascertain the work being provided by the electric utility and shall provide all additional material and work required to complete the electric service installation while meeting the requirements of the utility. Unless otherwise required by the utility, grounding shall be according to Section 806, raceways shall be according to Sections 810 – 812, and conductors shall be according to Sections 817 – 818.

The electric service installation shall include an appropriate service disconnect and when required, metering. Metering shall include all metering material, including potential and current transformers. The metering and service disconnect shall be installed remote to the controller enclosure where possible.

The total length of aerial and underground service between the controller enclosure and utility transformer shall not exceed 250 ft (76 m). The service pole or structure and controller shall be located adjacent to the right-of-way line or a minimum distance of 30 ft (9 m) from the edge of pavement. The exact location will be established by the Engineer.

Specific requirements for aerial and underground electric service installations shall be as follows.

(a) Aerial Electric Service. The aerial service shall be mounted on a wood pole, along with a weatherhead, disconnect switch, meter base (if required), and all appurtenances to complete the installation.

The wood pole shall be installed according to Article 830.03(c), except the pole shall be a minimum of 25 ft (7.5 m) in length and shall be increased as necessary to maintain ground clearance.

(b) Underground Electric Service.

(1) Ground Mounted Service. The ground mounted service shall be installed on a corrosion resistant pedestal or structure with a service disconnect switch, meter base (if required), and all appurtenances to complete the installation.

(2) Pole Mounted Service. The service shall be installed on a 12 ft (3.7 m) wood pole on which the meter base (if required) and service disconnect switch shall be channel

mounted. The wood pole shall be installed according to Article 830.03(c), except the pole shall be plumb.

(c) Conduit Protection. Feeder conductors in PVC conduit on the service pole or structure shall be protected by galvanized steel "U" guard. When on a pole, the "U" guard shall be attached with 3/8 in. x 3 in. (M10 x 75 mm) galvanized steel lag bolts."

Revise Article 804.05 of the Standard Specifications to read:

"**804.05 Basis of Payment.** This work will be paid for at the contract unit price per each for ELECTRIC SERVICE INSTALLATION.

For aerial electric service, work on the utility side of the weatherhead at the service pole will be paid for according to Article 109.04 when not provided by the utility company.

For underground electric service, work on the utility side of the service pole, pedestal, or structure where the service cables penetrate the ground will be paid for according to Article 109.04 when not provided by the utility company.

Any charges by the utility company to provide electrical service will be paid for according to Article 109.05."

80421

EMULSIFIED ASPHALTS (BDE)

Effective: August 1, 2019

Revise Article 1032.06 of the Standard Specifications to read:

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

(a) Anionic Emulsified Asphalt. Anionic emulsified asphalts RS-1, RS-2, HFRS-2, SS-1h, and SS-1 shall be according to AASHTO M 140, except as follows.

(1) The cement mixing test will be waived when the emulsion is being used as a tack coat.

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

(b) Cationic Emulsified Asphalt. Cationic emulsified asphalts CRS-1, CRS-2, CSS-1h, and CSS-1 shall be according to AASHTO M 208, except as follows.

(1) The cement mixing test will be waived when the emulsion is being used as a tack coat.

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

(c) High Float Emulsion. High float emulsions HFE-90, HFE-150, and HFE-300 are medium setting and shall be according to the following table.

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

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

1/ The emulsion shall be pumpable.

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

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

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

(e) Delete this subparagraph.

(f) Polymer Modified Emulsified Asphalt. Polymer modified emulsified asphalts, e.g. SS-1hP, CSS-1hP, CRS-2P (formerly CRSP), CQS-1hP (formerly CSS-1h Latex Modified) and HFRS-2P (formerly HFP) shall be according to AASHTO M 316, except as follows.

(1) The cement mixing test will be waived when the polymer modified emulsion is being used as a tack coat.

(2) CQS-1hP (formerly CSS-1h Latex Modified) emulsion for micro-surfacing treatments shall use latex as the modifier.

(3) Upon examination of the storage stability test cylinder after standing undisturbed for 24 hours, the surface shall show minimal to no white, milky colored substance and shall be a homogenous brown color throughout.

(4) The distillation for all polymer modified emulsions shall be performed according to AASHTO T 59, except the temperature shall be 374 ± 9 °F (190 ± 5 °C) to be held for a period of 15 minutes and measured using an ASTM 16F (16C) thermometer.

(5) The specified temperature for the Elastic Recovery test for all polymer modified emulsions shall be 50.0 ± 1.0 °F (10.0 ± 0.5 °C).

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

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

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

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

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

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

80415

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."

80388

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

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

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

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

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

Revise Article 1004.03(c) to read:

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

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

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

2/ The coarse aggregates used shall be capable of being combined with stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation and mineral filler to meet the approved mix design and the mix requirements noted herein.

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

HMA Nomenclature. Revise the "High ESAL" portion of the table in Article 1030.01 to read:

"High ESAL	Binder Courses	IL-19.0, IL-9.5, IL-9.5FG, IL-4.75, SMA 12.5, SMA 9.5

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

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

“HIGH ESAL, MIXTURE COMPOSITION (% PASSING) [1/]						
Sieve Size	SMA 12.5 [5/]		SMA 9.5 [5/]		IL-9.5FG	
	min.	max.	min.	max.	min.	max.
1 in. (25 mm)						
3/4 in. (19 mm)		100		100		
1/2 in. (12.5 mm)	90	99	95	100		100
3/8 in. (9.5 mm)	50	85	70	95	90	100
#4 4.75 mm)	20	40	30	50	60	75
#8 (2.36 mm)	16	24 [4/]	20	30	45	60
#16 (1.18 mm)				21	25	40
#30 (600 μm)				18	15	30
#50 (300 μm)				15	8	15
#100 (150 μm)					6	10
#200 (75 μm)	8.0	11.0 [3/]	8.0	11.0 [3/]	4.0	6.5
#635 (20 μm)		≤ 3.0		≤ 3.0		
Ratio of Dust/Asphalt Binder						1.0

1/ Based on percent of total aggregate weight.

2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.

3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.

4/ When establishing the adjusted job mix formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above 24 percent.

5/ When the bulk specific gravity (Gsb) of the component aggregates vary by more than 0.2, the blend gradations shall be based on volumetric percentage."

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

<table>
<tr><td colspan="5">"VOLUMETRIC REQUIREMENTS, High ESAL</td></tr>
<tr><td rowspan="2">Ndesign</td><td colspan="3">Voids in the Mineral Aggregate (VMA), % minimum</td><td rowspan="2">Voids Filled with Asphalt Binder (VFA),%</td></tr>
<tr><td>IL-19.0</td><td>IL-9.5
IL-9.5FG</td><td>IL-4.75 1/</td></tr>
<tr><td>50</td><td rowspan="3">13.5</td><td rowspan="3">15.0</td><td>18.5</td><td>65 - 78 2/</td></tr>
<tr><td>70</td><td rowspan="2"></td><td rowspan="2">65 – 75 3/</td></tr>
<tr><td>90</td></tr>
</table>

1/ Maximum draindown for IL-4.75 shall be 0.3 percent.

2/ VFA for IL-4.75 shall be 76-83 percent.

3/ VFA for IL-9.5FG shall be 65-78 percent."

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

<table>
<tr><td colspan="5">"VOLUMETRIC REQUIREMENTS, SMA 12.5 1/ and SMA 9.5 1/</td></tr>
<tr><td>ESALs (million)</td><td>Ndesign</td><td>Design Air Voids Target, %</td><td>Voids in the Mineral Aggregate (VMA), % min.</td><td>Voids Filled with Asphalt (VFA), %</td></tr>
<tr><td>≤ 10</td><td>50</td><td>4.0</td><td>16.0</td><td>75 – 80</td></tr>
<tr><td>> 10</td><td>80</td><td>4.0</td><td>17.0</td><td>75 – 80</td></tr>
</table>

1/ Maximum draindown shall be 0.3 percent."

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

"If the Contractor and Engineer agree the nuclear density test method is not appropriate for the mixture, cores shall be taken at random locations determined according to the

QC/QA document "Determination of Random Density Test Site Locations". Core densities shall be determined using the Illinois Modified AASHTO T 166 or T 275 procedure."

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

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

a. Confined Edge. Each confined edge density shall be represented by a one-minute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.

b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced 10 ft (3 m) apart longitudinally along the unconfined pavement edge and centered at the random density test location.

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

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

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

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

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

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

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

(1) The minimum diameter of the drum(s) shall be 42 in. (1070 mm);

(2) The minimum length of the drum(s) shall be 57 in. (1480 mm);

(3) The minimum unit static force on the drum(s) shall be 125 lb/in. (22 N/m); and

(4) The minimum force on the oscillatory drum shall be 18,000 lb (80 kN)."

CONSTRUCTION REQUIREMENTS

Add the following to Article 406.03 of the Standard Specifications:

"(j) Oscillatory Roller .....1101.01"

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

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

Revise Article 406.05(c) to read.

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

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

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

Revise Article 406.06(d) to read:

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

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

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

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

"TABLE 1 - MINIMUM ROLLER REQUIREMENTS FOR HMA				
	Breakdown Roller (one of the following)	Intermediate Roller	Final Roller (one or more of the following)	Density Requirement
Binder and Surface [1/]	V_D, P [3/], T_B, 3W, O_T, O_B	P [3/], O_T, O_B	V_S, T_B, T_F, O_T	As specified in Articles: 1030.05(d)(3), (d)(4), and (d)(7).
IL-4.75 and SMA [4/ 5/]	T_B, 3W, O_T	- -	T_F, 3W, O_T	
Bridge Decks [2/]	T_B	- -	T_F	As specified in Articles 582.05 and 582.06.

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

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

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

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

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

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

80416

HOT-MIX ASPHALT – LONGITUDINAL JOINT SEALANT (BDE)

Effective: August 1, 2018
Revised: November 1, 2019

Add the following to Article 406.02 of the Standard Specifications.

"(d) Longitudinal Joint Sealant (LJS) .....1032"

Add the following to Article 406.03 of the Standard Specifications.

"(k) Longitudinal Joint Sealant (LJS) Pressure Distributor (Note 2)
(l) Longitudinal Joint Sealant (LJS) Melter Kettle (Note 3)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Add the following to Section 1032 of the Standard Specifications.

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

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

80398

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

Effective: January 1, 2018
Revised: March 1, 2019

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

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

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

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

"(g) Structural Steel (Note 4) 1006.04

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

Add the following to Article 602.02 of the Standard Specifications:

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

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

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

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

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

80393

MOBILIZATION (BDE)

Effective: April 1, 2020

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

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

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

80428

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.

Item	Article/Section
(a) Grinders (Note 1)	
(b) Water Blaster with Vacuum Recovery	1101.12

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.

80371

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	4.0 - 8.0"
	PP-2	
	PP-3	
	PP-4	
	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."

80389

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

Effective: November 1, 2012
Revised: January 2, 2020

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. (37.5 mm)
SMA 12.5	1 in. (25.0 mm)
IL-9.5, IL-9.5FG, SMA 9.5	3/4 in. (19.0 mm)
IL-4.75	1/2 in. (12.5 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 ≤ 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	± 0.4 % 1/
G_{mm}	± 0.03

1/ The tolerance for FRAP shall be ± 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 following table.

RAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures [1/ 2/]	RAP/RAS Maximum ABR %		
Ndesign	Binder	Surface	Polymer Modified Binder or Surface
30	30	30	10

50	25	15	10
70	15	10	10
90	10	10	10

1/ For Low ESAL HMA shoulder and stabilized subbase, the RAP/RAS ABR shall not exceed 50 percent of the mixture.

2/ When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28). 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 following table.

FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures 1/ 2/	FRAP/RAS Maximum ABR %		
Ndesign	Binder	Surface	Polymer Modified Binder or Surface
30	50	40	10
50	40	35	10
70	40	30	10
90	40	30	10
SMA	- -	- -	20
IL-4.75	- -	- -	30

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).

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.

h. 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.”

80306

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2019
Revised: January 1, 2020

Revise Section 669 of the Standard Specifications to read:

"**SECTION 669. REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES**

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

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

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

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

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

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

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

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

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

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

CONSTRUCTION REQUIREMENTS

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

(a) Environmental Observation. Prior to beginning excavation, the Contractor shall mark the limits of the contract specific work areas. Once work begins, the monitoring personnel shall be present on-site continuously during the excavation and loading of material.

(b) Field Screening. Field screening shall be performed during the excavation and loading of material from the contract specific work areas, except for material classified according to Article 669.05(b)(1) or 669.05(c) where field screening is not required.

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

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

(a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in soil established pursuant to Subpart F of 35 Ill. Adm. Code 1100.605, the soil shall be managed as follows:

(1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC, but still considered within area background levels by the Engineer, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable. If the soils cannot be utilized within the right-of-way, they shall be managed and disposed of at a landfill as a non-special waste.

(2) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County identified in 35 Ill. Admin. Code 742 Appendix A. Table G, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of at a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation (USFO) within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the right-of-way as embankment or fill, when suitable, or managed and disposed of off-site at a CCDD facility or an USFO within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

(5) When the Engineer determines soil cannot be managed according to Articles 669.05(a)(1) through (a)(4) above and the materials do not contain special waste or hazardous waste, as determined by the Engineer, the soil shall be managed and disposed of at a landfill as a non-special waste.

(6) When analytical results indicate soil is hazardous by characteristic or listing pursuant to 35 Ill. Admin. Code 721, contains radiological constituents, or the Engineer otherwise determines the soil cannot be managed according to Articles 669.05(a)(1)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) a potentially infectious medical waste;

(2) a hazardous waste as defined in 35 Ill. Admin. Code 721;

(3) an industrial process waste or pollution control waste that contains liquids, as determined using the paint filter test set forth in subdivision (3)(A) of subsection (m) of 35 Ill. Admin. Code 811.107;

(4) a regulated asbestos-containing waste material, as defined under the National Emission Standards for Hazardous Air Pollutants in 40 CFR Part 61.141;

(5) a material containing polychlorinated biphenyls (PCB's) regulated pursuant to 40 CFR Part 761;

(6) a material subject to the waste analysis and recordkeeping requirements of 35 Ill. Admin. Code 728.107 under land disposal restrictions of 35 Ill. Admin. Code 728;

(7) a waste material generated by processing recyclable metals by shredding and required to be managed as a special waste under Section 22.29 of the Environmental Protection Act; or

(8) an empty portable device or container in which a special or hazardous waste has been stored, transported, treated, disposed of, or otherwise handled.

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

(1) the means by which the generator has determined the waste is not a hazardous waste;

(2) the means by which the generator has determined the waste is not a liquid;

(3) if the waste undergoes testing, the analytic results obtained from testing, signed and dated by the person responsible for completing the analysis;

(4) if the waste does not undergo testing, an explanation as to why no testing is needed;

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

(6) relevant material safety data sheets.

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

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

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

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

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

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

(a) Non-Special Waste. When stockpiling soil classified according to Article 669.05(a)(1) or 669.05(a)(5), an impermeable surface barrier between the materials and the ground surface shall be installed. The impermeable barrier shall consist of a minimum 20-mil plastic liner material and the surface of the stockpile area shall be clean and free of debris prior to placement of the liner. Measures shall also be taken to limit or discourage access to the staging area.

(b) Special Waste and Hazardous Waste. Soil classified according to Article 669.05(a)(6) shall not be stockpiled but shall be containerized immediately upon generation in containers, tanks or containment buildings as defined by RCRA, Toxic Substances Control

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) Take immediate action to prevent any further release of the regulated substance to the environment, which may include removing, at the Engineer's discretion, and disposing of up to 4 ft (1.2 m) of the contaminated material, as measured from the outside dimension of the tank;

(b) Identify and mitigate fire, explosion and vapor hazards;

(c) Visually inspect any above ground releases or exposed below ground releases and prevent further migration of the released substance into surrounding soils and groundwater; and

(d) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors and free product that have migrated from the tank excavation zone and entered into subsurface structures (such as sewers or basements).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

80407

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

Effective: November 1, 2019
Revised: April 1, 2020

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

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

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

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

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

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

Revise Article 1080.02 of the Standard Specifications to read:

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

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

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

PHYSICAL PROPERTIES			
	Silt Fence Woven [1/]	Ground Stabilization Woven [2/]	Ground Stabilization Nonwoven [2/]
Grab Strength, lb (N) [3/] ASTM D 4632	123 (550) MD 101 (450) XD	247 (1100) min. [4/]	202 (900) min. [4/]
Elongation/Grab Strain, % ASTM D 4632 [4/]	49 max.	49 max.	50 min.
Trapezoidal Tear Strength, lb (N) ASTM D 4533 [4/]	--	90 (400) min.	79 (350) min.

Puncture Strength, lb (N) ASTM D 6241 [4/]	--	494 (2200) min.	433 (1925) min.
Apparent Opening Size, Sieve No. (mm) ASTM D 4751 [5/]	30 (0.60) max.	40 (0.43) max.	40 (0.43) max.
Permittivity, sec^{-1} ASTM D 4491	0.05 min.		
Ultraviolet Stability, % retained strength after 500 hours of exposure ASTM D 4355	70 min.	50 min.	50 min.

1/ NTPEP results or manufacturer's certification to meet test requirements.

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

3/ MD = Machine direction. XD = Cross-machine direction.

4/ Values represent the minimum average roll value (MARV) in the weaker principle direction, MD or XD.

5/ Values represent the maximum average roll value."

Revise Article 1080.03 of the Standard Specifications to read:

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

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

The filter fabric shall be according to the following.

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

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

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

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

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

1/ Values represent the maximum average roll value."

Revise Article 1081.15(h)(3)a of the Standard Specifications to read:

"a. Inner Filter Fabric Bag. The inner filter fabric bag shall be constructed of woven yarns or nonwoven filaments made of polyolefins or polyesters with a minimum silt and debris capacity of 2.0 cu ft (0.06 cu m). Woven fabric shall be Class 3 and nonwoven fabric shall be Class 2 according to AASHTO M 288. The fabric bag shall be according to the following.

PHYSICAL PROPERTIES		
	Woven	Nonwoven
Grab Strength, lb (N) ASTM D 4632 1/	180 (800) min.	157 (700) min.
Elongation/Grab Strain, % ASTM D 4632 1/	49 max.	50 min.
Trapezoidal Tear Strength, lb (N) ASTM D 4533 1/	67 (300) min.	56 (250) min.
Puncture Strength, lb (N) ASTM D 6241 1/	370 (1650) min.	309 (1375) min.
Apparent Opening Size, Sieve No. (mm) ASTM D 4751 2/	60 (0.25) max.	
Permittivity, sec^{-1} ASTM D 4491	2.0 min.	
Ultraviolet Stability, % retained strength after 500 hours of exposure – ASTM D 4355	70 min.	

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

2/ Values represent the maximum average roll value."

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

"(i) Urethane Foam/Geotextile. Urethane foam/geotextile shall be triangular shaped having a minimum height of 10 in. (250 mm) in the center with equal sides and a minimum 20 in. (500 mm) base. The triangular shaped inner material shall be a low density urethane foam. The outer geotextile fabric cover shall consist of woven yarns or nonwoven filaments made of polyolefins or polyesters placed around the inner material and shall extend beyond both sides of the triangle a minimum of 18 in. (450 mm). Woven filter fabric shall be Class 3 and nonwoven filter fabric shall be Class 2 according to AASHTO M 288.

(1) The geotextile shall meet the following properties.

PHYSICAL PROPERTIES		
	Woven	Nonwoven
Grab Strength, lb (N) ASTM D 4632 1/	180 (800) min.	157 (700) min.
Elongation/Grab Strain, % ASTM D 4632 1/	49 max.	50 min.
Trapezoidal Tear Strength, lb (N) ASTM D 4533 1/	67 (300) min.	56 (250) min.
Puncture Strength, lb (N) ASTM D 6241 1/	370 (1650) min.	309 (1375) min.

Apparent Opening Size, Sieve No. (mm) ASTM D 4751 2/	30 (0.60) max.
Permittivity, sec^{-1} ASTM D 4491	2.0 min.
Ultraviolet Stability, % retained strength after 500 hours of exposure – ASTM D 4355	70 min.

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

2/ Values represent the maximum average roll value."

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

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

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

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

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

(2) Fitted Geotextile Filter Fabric. The fitted geotextile filter fabric shall consist of woven yarns or nonwoven filaments made of polyolefins or polyesters. Woven filter fabric shall be Class 3 and nonwoven filter fabric shall be Class 2 according to AASHTO M 288. The filter shall be fabricated to provide a direct fit to the frame. The top of the filter shall integrate a coarse screen with a minimum apparent opening size of 1/2 in. (13 mm) to allow large volumes of water to pass through in the event of heavy flows. The filter shall have integrated anti-buoyancy pockets capable of holding a minimum of 3.0 cu ft (0.08 cu m) of stabilization material. Each filter shall have a label with the following information sewn to or otherwise permanently adhered to the outside: manufacturer's name, product name, and lot, model, or serial number. The fitted geotextile filter fabric shall be according to the table in Article 1081.15(h)(3)a above."

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

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

(1) Frame Construction.

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

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

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

(3) Geotechnical Fabric Attachment to the Frame.

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

b) Collapsible Aluminum Frame. The woven or nonwoven fabric shall be secured to the aluminum frame along the top and bottom of the frame perimeter with strips of aluminum secured to the perimeter member, such that the anchoring system provides a uniformly distributed stress throughout the geotechnical fabric.

(4) Certification. The manufacturer shall furnish a certificate with each shipment of above grade inlet filter assemblies stating the amount of product furnished and that the material complies with these requirements."

80419

SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE)

Effective: April 2, 2018

Add the following to Section 109 of the Standard Specifications.

"**109.14 Subcontractor and Disadvantaged Business Enterprise Payment Reporting.** The Contractor shall report all payments made to the following parties:

(a) first tier subcontractors;

(b) lower tier subcontractors affecting disadvantaged business enterprise (DBE) goal credit;

(c) material suppliers or trucking firms that are part of the Contractor's submitted DBE utilization plan.

The report shall be made through the Department's on-line subcontractor payment reporting system within 21 days of making the payment."

80397

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: November 2, 2017
Revised: April 1, 2019

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

"This mobilization payment shall be made at least seven days prior to the subcontractor starting work. The amount paid shall be at the following percentage of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

Value of Subcontract Reported on Form BC 260A	Mobilization Percentage
Less than $10,000	25%
$10,000 to less than $20,000	20%
$20,000 to less than $40,000	18%
$40,000 to less than $60,000	16%
$60,000 to less than $80,000	14%
$80,000 to less than $100,000	12%
$100,000 to less than $250,000	10%
$250,000 to less than $500,000	9%
$500,000 to $750,000	8%
Over $750,000	7%"

80391

TRAFFIC CONTROL DEVICES - CONES (BDE)

Effective: January 1, 2019

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

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

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

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

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

80409

TRAINING SPECIAL PROVISIONS (BDE) This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be . In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather then clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

METHOD OF MEASUREMENT The unit of measurement is in hours.

BASIS OF PAYMENT This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

20338

WARM MIX ASPHALT (BDE)

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

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

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

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

Equipment.

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

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

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

"(11) Equipment for Warm Mix Technologies.

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

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

Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

"(e) Warm Mix Technologies.

(1) Foaming. WMA mix design verification will not be required when foaming technology is used alone (without WMA additives). However, the foaming technology shall only be used on HMA designs previously approved by the Department.

(2) Additives. WMA mix designs utilizing additives shall be submitted to the Engineer for mix design verification."

Construction Requirements.

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

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

Basis of Payment.

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

80288

WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012
Revised: 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.

80302

WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within working days.

80071

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection

for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

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

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each

classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

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

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

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

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

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

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

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

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

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

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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

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

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

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

b. Trainees (programs of the USDOL).

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

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

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

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

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

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

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

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

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the 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 (https://www.epls.gov/), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

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

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of

Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

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

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

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

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

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

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Contract Provision - Cargo Preference Requirements

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

"(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

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

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

MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONSTRUCTION CONTRACTS

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

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