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Letting January 18, 2019

Notice to Bidders, Specifications and Proposal

Contract No. 87710
GRUNDY County
Section 14-00030-00-WR (Coal City)
Route FAS 288 (Broadway Street)
Project QI4M-212 ()
District 3 Construction Funds

Prepared by	F
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. January 18, 2019 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. 87710
   GRUNDY County
   Section 14-00030-00-WR (Coal City)
   Project QI4M-212 ()
   Route FAS 288 (Broadway Street)
   District 3 Construction Funds

Pavement reconstruction, storm sewers, curb and gutter, sidewalk and roadway lighting, on Broadway Street from IL 113 to Park Street in Coal City.

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

   (b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.

4. **AWARD CRITERIA AND REJECTION OF BIDS**. This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Randall S. Blankenhorn,
Secretary

CONTRACT 87710

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2019

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 1-1-19)

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:

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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	Jan. 1, 2014
	80274	121	X	Aggregate Subgrade Improvement	April 1, 2012	April 1, 2016
	80192			Automated Flagger Assistance Device	Jan. 1, 2008	
	80173	124	X	Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
	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
*	80404			Coarse Aggregate Quality for Micro-Surfacing and Cape Seals	Jan. 1, 2019	
	80384	126	X	Compensable Delay Costs	June 2, 2017	
	80198			Completion Date (via calendar days)	April 1, 2008	
	80199			Completion Date (via calendar days) Plus Working Days	April 1, 2008	
	80293			Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	July 1, 2016
	80311			Concrete End Sections for Pipe Culverts	Jan. 1, 2013	April 1, 2016
	80277			Concrete Mix Design – Department Provided	Jan. 1, 2012	April 1, 2016
	80261			Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
	80387			Contrast Preformed Plastic Pavement Marking	Nov. 1, 2017	
*	80029	130	X	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Jan. 2, 2019
	80402	140	X	Disposal Fees	Nov. 1, 2018	
	80378			Dowel Bar Inserter	Jan. 1, 2017	Jan. 1, 2018
*	80405			Elastomeric Bearings	Jan. 1, 2019	
	80388	142	X	Equipment Parking and Storage	Nov. 1, 2017	
	80229			Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
	80304			Grooving for Recessed Pavement Markings	Nov. 1, 2012	Nov. 1, 2017
	80246	143	X	Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	Aug. 1, 2018
*	80406			Hot-Mix Asphalt – Mixture Design Verification and Production (Modified for I-FIT Projects)	Jan. 1, 2019	
*	80398			Hot-Mix Asphalt – Longitudinal Joint Sealant	Aug. 1, 2018	Jan. 1, 2019
	80399	145	X	Hot-Mix Asphalt – Oscillatory Roller	Aug. 1, 2018	Nov. 1, 2018
	80347			Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling	Nov. 1, 2014	Aug. 1, 2018
*	80383			Hot-Mix Asphalt – Quality Control for Performance	April 1, 2017	Jan. 1, 2019
	80376	147	X	Hot-Mix Asphalt – Tack Coat	Nov. 1, 2016	
	80392	148	X	Lights on Barricades	Jan. 1, 2018	
	80336			Longitudinal Joint and Crack Patching	April 1, 2014	April 1, 2016
*	80393	150	X	Manholes, Valve Vaults, and Flat Slab Tops	Jan. 1, 2018	Jan. 1, 2019
	80400			Mast Arm Assembly and Pole	Aug. 1, 2018	
	80045			Material Transfer Device	June 15, 1999	Aug. 1, 2014
	80394			Metal Flared End Section for Pipe Culverts	Jan. 1, 2018	April 1, 2018
	80165			Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
	80349			Pavement Marking Blackout Tape	Nov. 1, 2014	April 1, 2016
	80371			Pavement Marking Removal	July 1, 2016	
	80390	152	X	Payments to Subcontractors	Nov. 2, 2017	
	80389	153	X	Portland Cement Concrete	Nov. 1, 2017	
	80359			Portland Cement Concrete Bridge Deck Curing	April 1, 2015	Nov. 1, 2017
	80401			Portland Cement Concrete Pavement Connector for Bridge Approach Slab	Aug. 1, 2018	

	File Name	Pg.		Special Provision Title	Effective	Revised
	80300			Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	April 1, 2016
	80328	154	X	Progress Payments	Nov. 2, 2013	
	3426I			Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
	80157	155	X	Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
*	80306	157	X	Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	Jan. 1, 2019
*	80407	167	X	Removal and Disposal of Regulated Substances	Jan. 1, 2019	
	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	
	80397	179	X	Subcontractor and DBE Payment Reporting	April 2, 2018	
	80391	180	X	Subcontractor Mobilization Payments	Nov. 2, 2017	
	80317			Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	April 1, 2016
	80298	181	X	Temporary Pavement Marking	April 1, 2012	April 1, 2017
	20338	184	X	Training Special Provision	Oct. 15, 1975	
	80403			Traffic Barrier Terminal, Type 1 Special	Nov. 1, 2018	
*	80409	187	X	Traffic Control Devices – Cones	Jan. 1, 2019	
*	80410			Traffic Spotters	Jan. 1, 2019	
	80318			Traversable Pipe Grate for Concrete End Sections	Jan. 1, 2013	Jan. 1, 2018
	80288	188	X	Warm Mix Asphalt	Jan. 1, 2012	April 1, 2016
	80302	190	X	Weekly DBE Trucking Reports	June 2, 2012	April 2, 2015
	80071	191	X	Working Days	Jan. 1, 2002	

The following special provisions are in the 2019 Supplemental Specifications and Recurring Special Provisions.

File Name	Special Provision Title	New Location	Effective	Revised
80382	Adjusting Frames and Grates	Articles 602.02(s) and (t), 1043.04, and 1043.05	April 1, 2017	
80366	Butt Joints	Article 406.08(c)	July 1, 2016	
80386	Calcium Aluminate Cement for Class PP-5 Concrete Patching	Article 1001.01(e)	Nov. 1, 2017	
80396	Class A and B Patching	Articles 442.06(a)(1) and (2)	Jan. 1, 2018	Nov. 1, 2018
80377	Portable Changeable Message Signs	Articles 701.20(h) and 1106.02(i)	Nov. 1, 2016	April 1, 2017
80385	Portland Cement Concrete Sidewalk	Article 424.12	Aug. 1, 2017	

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the specifications listed in the table below which apply to and govern the proposed improvement designated as Section 14-00030-00-WR, Contract Number 87710 and in case of conflict with any part or parts of said specifications, the said Special Provisions shall take precedence and govern.

SPECIFICATION	ADOPTED/DATED
Standard Specifications for Road and Bridge Construction	April 1, 2016
Manual on Uniform Traffic Control Devices for Streets and Highways	2009 Edition with Revisions 1 and 2
Illinois Manual on Uniform Traffic Control Devices for Streets and Highways" (ILMUTCD)	Current Edition
Supplemental Specifications and Recurring Special Provisions (indicated on the Check Sheet included herein)	January 1, 2019
Manual of Test Procedure of Materials	Current
Standard Specifications for Water & Sewer Main Construction in Illinois	7th Edition, 2014

LOCATION OF IMPROVEMENT

Broadway Street is located in the Village of Coal City, Grundy County. The improvement on Broadway Street begins at the south radius return of Walnut Street and ends approximately 168 feet south of the centerline of IL 113 (Division Street). Total net and gross length is 3,223.5 feet (0.61 miles).

DESCRIPTION OF IMPROVEMENT

The work consists of pavement, curb and gutter and sidewalk removal, earth excavation, full-depth HMA pavement, concrete sidewalk, concrete curb and gutter, roadway lighting removal and replacement, brick pavers, sodding and top soil, earth excavation, landscaping, as well as all incidental and collateral work necessary to complete the project as shown on the plans and as described herein.

ADJUSTMENTS AND RECONSTRUCTIONS

Effective: March 15, 2011

Revise the first paragraph of Article 602.04 to read:

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

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

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

Revise Article 603.05 to read:

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

Revise Article 603.06 to read:

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

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

Revise the first sentence of Article 603.07 to read:

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

STATUS OF UTILITIES TO BE ADJUSTED

(Effective January 1, 2007; Revised January 24, 2011)

Agency/Company Responsible to Resolve Conflict	Name of contact	Address	Phone	e-mail address
AT&T (Distribution)	**Steve Larson**	1000 Commerce Drive, Floor 1 Oak Brook, IL 60523	630-573-5450	g11629@att.com
Village of Coal City	**Darrell Olson**		815-999-9328	dolson@coalcity-il.gov
Comcast	**Martha Gieras**	688 Industrial Drive Elmhurst, IL 60126	224-229-5862	martha_gieras@cable.comcast.com
ComEd			630-437-3381	PlanSubmittalsandMapRequests @exeloncorp.com or Lisa.mavity@comed.com
Nicor Gas	**Bruce Koppang**	1844 Ferry Road Naperville, IL 60563	630-388-3830	bkoppan@aglresources.com
Buckeye Partners	**Dave Jones**	5 Tek Park 9999 Hamilton Blvd Breingsville, Pa. 18031	610-904-4409	encroachmentreviews@buckeye.com

The above represents the best information of the Department and is only included for the convenience of the bidder. The applicable provisions of Section 102 and Articles 105.07, 107.20, 107.37, 107.38, 107.39, 107.40, and 108.02 of the Standard Specifications for Road and Bridge Construction shall apply.

MAINTENANCE OF ROADWAYS

Effective: September 30, 1985
Revised: November 1, 1996

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

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

AGGREGATE SUBGRADE IMPROVEMENT (District 3)

(Effective April 1, 2012; Revised January 1, 2013)

Add the following Section to the Standard Specifications:

"**SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT**

303.01 Description. This work shall consist of constructing an aggregate subgrade improvement.

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.06
(b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2, and 3)	1031

Note 1. Crushed RAP, from either full depth or single lift removal, may be mechanically blended with aggregate gradations CS 01 or CS 02 but shall not exceed 40 percent of the total product. The top size of the RAP shall be less than 4 in. (100 mm) and well graded.

Note 2. RAP having 100 percent passing the 1 1/2 in. (37.5 mm) sieve and being well graded, may be used as capping aggregate in the top 3 in. (75 mm) when aggregate gradations CS 01 or CS 02 are used in lower lifts. The RAP shall not be gap graded, single sized, or have a maximum size of less than 3/4 in. (19 mm).

Note 3. The RAP used for aggregate subgrade improvement shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, “Reclaimed Asphalt Pavement (RAP) for Aggregate Applications”.

303.03 Equipment. The vibratory machine shall be according to Article 1101.01 or as approved by the Engineer.

303.04 Soil Preparation. The stability of the soil shall be according to the Department’s Subgrade Stability Manual for the aggregate thickness specified.

303.05 Placing Aggregate. The maximum nominal lift thickness of aggregate gradations CS 01 and CS 02 shall be 24 in. (600 mm).

303.06 Capping Aggregate. The top surface of the aggregate subgrade shall consist of a minimum 3 inches (75 mm) of aggregate gradations CA 06 or CA 10.

303.07 Compaction. All aggregate lifts shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

303.08 Finishing and Maintenance of Aggregate Subgrade Improvement. The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

303.09 Method of Measurement. This work will be measured for payment according to Article 311.08.

303.10 Basis of Payment. This work will be paid for at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified.”

Add the following to Section 1004 of the Standard Specifications:

“**1004.07 Coarse Aggregate for Aggregate Subgrade Improvement.** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete.

(b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.

(c) Gradation.

(1) The coarse aggregate gradation for total subgrade thickness less than or equal to 12 inches (300 mm) shall be CS 02.

The coarse aggregate gradation for total subgrade thickness more than 12 inches (300 mm) shall be CS 01 or CS 02.

	COARSE AGGREGATE SUBGRADE				
Grad No.	Sieve Size and Percent Passing				
	8”	6”	4”	2”	#4
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

	COARSE AGGREGATE SUBGRADE GRADATIONS				
Grad No.	Sieve Size and Percent Passing				
	200 mm	150 mm	100 mm	50 mm	4.75 mm
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

(2) The 3 inch (75 mm) capping aggregate shall be gradation CA 6 or CA 10."

FIRE HYDRANTS TO BE REMOVED

This work shall consist of the removal of fire hydrants, auxiliary valves and valve boxes. These materials shall be delivered to the Coal City Department of Public Works. The resulting hole from the removal of the fire hydrant shall be backfilled with limestone screenings or other material as directed by the Engineer.

This work will be paid for at the contract unit price per each for FIRE HYDRANTS TO BE REMOVED.

FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX

Description. This work shall consist of constructing new fire hydrants with auxiliary valves and valve boxes.

Construction. All new fire hydrants shall be equipped with a breakaway flange and shall have two (2) 2 ½ inch hose nozzles and one (1) 4 ½ inch pumper nozzle. All fire hydrants shall be Medallion manufactured by Clow Valve Co. All fire hydrants shall be painted red and equipped with an auxiliary valve and cast-iron valve box. The auxiliary valve shall be six inch (6”) ductile iron water pipe conforming to AWWA Standard C151, C111, and C104. The valve boxes shall be of the adjustable type, shall be set at finished grade, and shall have the valve box covers stamped “Water”.

A minimum of ¼ cubic yard of coarse aggregate, CA-1 (two-foot (2’) minimum with geotechnical fabric), shall be placed at and around the base of the hydrant to insure proper

drainage of the hydrant after use. The hydrant shall be set on a concrete block to insure firm bearing for the hydrant base.

Basis of Payment. This work shall be paid for at the contract unit price per each for FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX.

CONCRETE MEDIAN SURFACE, 6 INCH

This work shall be completed in accordance with Section 606 of the Standard Specifications, IDOT Standard 606301-4 and the details in the plans.

Basis of Payment. This work shall be paid for at the contract unit price per square foot for CONCRETE MEDIAN SURFACE, 6 INCH.

SHREDDED BARK MULCH 3”

Description. Shredded hardwood bark mulch shall be free of harmful chemicals, diseases, and insects. Mulch shall have a minimum 1/8-inch dimension and a maximum length of 2-1/2”. Mulch shall be placed around the new plant material to a finished depth of 3 inches. In curbed planters and median islands that only receive mulch and no shrubs, the depth shall also be 3”.

Basis of Payment. This work shall be paid for at the contract unit price per square yard for SHREDDED BARK MULCH 3”.

PLANTER

Description. This work shall consist of supplying and placing planters, planting soil and plant material.

Materials. The planters shall be manufactured by:

Classic Garden Ornaments, Ltd.
Longshadow Planters
83 Longshadow Lane
Pomona, Illinois 62975
(618) 893-4831
Fax (618) 893-4833

The planters come in four sizes. Below is a schedule for the planters.

Planter Size and Model	Number
60” Diameter – LS 9095	11
36” Diameter x 12” High – LS 9093	24
36” Diameter x 12” High – LS 9102	27
22” Diameter – LS 9241	23

Planting Soil. All planters are to be filled with a planting mix consisting of soil, sand, wood fines, compost, peat moss and a slow release granular balanced fertilizer (10-10-10). Mix is to be slightly mounded for a better presentation. For the 60” diameter pot, the mix is to be slightly mounded (2” higher than the rim) for a better presentation. Planting soil will not be paid for separately but will be included in the cost of each Planter.

Plant Material. The contractor is to supply, install and maintain a mix of annual flower fillers, trailers and accent plants for each planter for the first growing season only. All plants selected for this installation are subject to acceptance by the Engineer. If material is rejected for any reason, it is the contractor’s responsibility to replace rejected material within two days to avoid any delay of the installation. Plant material will not be paid for separately but will be included in the cost of each Planter.

The 36” diameter pots will each be planted with a single color of Wave Petunias, one pot, one color. The size shall be 4” dia. container minimum, the colors will be pink, white and purple, with 4 plants per pot. In between the wave petunias provide and install a contrasting color annual Verbena, one pot, one color pink, white and purple, 4” dia. container minimum, 4 plants per pot.

The 60” diameter pots will each be planted with a single color of Wave Petunias, one pot, one color. The size shall be 4” dia. container minimum, the colors will be pink, white and purple, with 8 plants per pot. In between the wave petunias provide and install a contrasting color annual Verbena, one pot, one color, pink, white and purple, 4” dia. container minimum, 8 plants per pot. In the center provide and install 5 Purple Fountain Grass, quart size.
The 22” diameter pots will each be planted with two colors of Lobelia, one pot, two colors, 3” dia. container minimum, the colors will be pink, and purple, with 6 plants per pot. In the center provide and install annual Salvia, white 4” dia. container minimum, 3 plants per pot.

Pot Preparation. The planter manufacturer supplied soil filter square should be placed, felt side up, over the drain hole of each planter.

Installation. Planting shall not commence before May 17, 2020 and shall be completed no later than June 5, 2020.

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

STORM SEWER TO BE FILLED

Description. This work shall consist of plugging and filling existing storm sewers that are to be abandoned.

Construction Requirements. All storm sewers to be filled shall be plugged at both ends with at least 2 feet of Class SI Concrete or mortar plug. After the concrete or mortar has set, the abandoned storm sewers can be filled. The controlled low-strength material used to fill the storm sewers and the filling operation shall be in accordance with Section 593 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per foot for STORM SEWER TO BE FILLED.

BENCH REMOVAL

Description. This work shall consist of removing and disposing of benches and their concrete foundations. Disposal shall be in accordance with Article 202.03 of the Standard Specifications. The resulting holes shall be backfilled with sand.

Method of Measurement. This work will be measured for payment per each.

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

TEMPORARY SIDEWALK RAMP

Description. This work shall consist of providing pedestrian access within the project limits to and from adjacent properties and at street crosswalks. This work shall include all temporary access walks and ramps needed to maintain access until the walkway is fully restored.

Construction Requirements. Temporary access walks and ramps shall be wood frame and plywood constructed within ADA and MUTCD requirements.

The Contractor shall submit shop drawings for plywood walkways and ramps to the Engineer for review and approval prior to construction. The Contractor will be responsible for the observation and protection of temporary accesses at all times throughout the duration of the project. The Contractor shall also be responsible for the installation and maintenance of signage and other items to provide safe pedestrian access.

When the Engineer has determined that a temporary access walk or ramp is no longer required, it shall be promptly relocated by the Contractor or removed from the project site. as directed by the Engineer. Work and materials needed to maintain and repair the temporary access ramps shall not be measured for payment. Moving or modifying the temporary access

ramps during later construction stages shall not be measured for payment, regardless of the number of times it must be moved or modified.

Method of Measurement. This work will be measured for payment in place in units of each temporary sidewalk ramp furnished and installed at a specific location.

Basis of Payment. This item will be paid for at the contract unit price per each for TEMPORARY SIDEWALK RAMP.

CONFLICT MANHOLES

Description. This work shall consist of consist of constructing conflict manholes with frames and lids in accordance with applicable portions of Section 602 of the Standard Specifications and the details shown in the plans.

Method of Measurement and Basis of Payment. This work shall be measured and paid for at the Contract unit price each for CONFLICT MANHOLES.

CONCRETE LANDING SLAB

Description. This work shall consist of forming and pouring P.C. concrete base slabs under proposed concrete brick pavers. This work shall be performed in accordance with the plan details and as directed by the Engineer, and as specified herein.

Construction Requirements. This work shall be completed in accordance with applicable portions of Section 424 of the Standard Specifications. The concrete landing slab shall be 4" in thickness. In addition, the Contractor shall drill ½" diameter holes in the landing slab at 2' centers. The holes shall be covered with a 6" x 6" square of filter fabric before it is backfilled.

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

Basis of Payment. This item will be paid for at the contract unit price per square foot for CONCRETE LANDING SLAB.

PAVEMENT IMPRINTING

Description. This work shall consist of the layout and imprinting of a crosswalk pattern, as shown on the details, into the street surface course using TrafficPatterns XD^{tm} an Imprinted Aggregate Reinforced Preformed Thermoplastic Pavement Marking System.

Construction Requirements. The product shall be installed per the latest revision of the manufacturer's application procedures. The product installed shall be an imprinted aggregate reinforced preformed thermoplastic pavement marking system TrafficPatterns XD^{tm}.

The color shall be 'Brown' and the pattern shall be herringbone with a soldier bond course. The white lines on the outside of the crosswalk shall be a preformed thermoplastic material.

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

Basis of Payment. This work will be measured for payment at the contract unit price per square yard for PAVEMENT IMPRINTING.

BRICK SIDEWALK

Description. This work shall consist of furnishing and installing unit pavers units on a prepared sand bed and concrete base. This work shall also include all required sand setting bed, and paver joint material. This work shall be done at the locations specified in the Contract plans or as directed by the Engineer. The concrete base will be paid for separately as Concrete Landing Slab.

Qualification. The Contractor shall provide written evidence that his firm or other entity proposed for the unit paving work has specific experience meeting the following criteria:

A. Experience installing unit pavers using sand setting beds.
B. Installed (within past two years) a minimum of 200,000 square feet per year of unit paving using sand setting beds in commercial projects.
C. The same experienced supervisory personnel will be made available for this project.

If requested, the paving firm shall submit a list of comparable projects setting forth description, square footage, location and knowledgeable references with addresses and phone numbers.

Any material substitutions must be submitted to the Engineer for review. Submittals for consideration shall include full-sized samples and technical specifications. The Engineer will review the substitution proposal and, if approved, will issue written approval. Substitution submittals received after time outlined above will not be considered. Substitutions during construction will not be allowed.

Materials. Unit pavers shall meet the requirements of Article 1042.15 of the Standard Specifications.

Paver Material shall be Richcliff with EnduraColor plus, color to be Dawn Mist for the planter and seating area fields with a soldier course banding of Copthorne with EnduraColor plus, color to be Basalt. The unit paver fields for the parkways shall be a 50 / 50 blend of the Holland Premier, colors Brown and Harvest Brown as manufactured by Unilock.

Unilock Chicago, Inc.
301 E. Sullivan Road
Aurora, IL 60505
1-800-UNILOCK

Sand setting bed and joint sand shall be clean, non-plastic, free from deleterious or foreign matter. The sand shall be natural or manufactured from crushed rock. Grading of samples shall be done according to ASTM C136. The particles shall be sharp and conform to the grading requirements of ASTM C33 as shown in Table 1.

Table 1
Grading Requirements for Bedding and Joint Sand

Sieve Size	Percent Passing
3/8 in.	100
No. 4	95 to 100
No. 8	80 to 100
No. 16	50 to 85
No. 30	25 to 60
No. 50	10 to 30
No. 100	2 to 10

Submittals. Submit samples of brick paving units to indicate color and size selections. Color will be selected by Village from manufacturer's available colors.

Submit sieve analysis for grading of bedding sand.

Delivery, Storage and Handling. Deliver brick pavers to the site in steel banded, plastic banded, or plastic wrapped cubes or on pallets capable of transfer by fork lift or clamp lift. Unload pavers at job site in such a manner that no damage occurs to the product.

Sand delivered to the site shall be covered with waterproof covering to prevent exposure to rainfall or removal by wind. The covering shall be secured in place.

There shall be no variation in the depth of each paver. Pavers with extensive breakage of corners shall be rejected. Field pavers shall be laid as indicated on the plan and shall be an equal mixture of the standard colors. Final colors shall be approved by Engineer as coordinated with the Village prior to work.

Do not install sand or pavers during heavy rain or snowfall. Do not install frozen sand.

Field Mock Up. Contractor shall provide a 6 ‘x 6’ field mock up to demonstrate finish, color and pattern of the interlocking paver pavement to be approved by Engineer before installation.

Construction. Pavers shall be installed per the manufacturer's recommendations. No paver setting work shall be performed when the underlayment has free moisture, ice, or snow, or when the underlayment is frozen. Concrete underlayment shall be sound, clean, and free from debris and materials or substances that will hinder the bond of the setting bed. The top surface of concrete underlayment slab shall not vary more than one half (1/2) inch of its proposed elevation. See detail plans for cross section of typical unit paver system.

To reduce dust during paver installation, unit pavers shall only be cut using wet saws. No dry cutting is permitted. Cut pavers shall be placed in areas shown on the details in the plans. "L" shaped pavers shall be avoided where possible. Pavers shall be cut radially when joints between pavers on curves exceed 1/8 inch. Radial cut pavers shall be created by trimming both sides of paver. Paver edgings shall be installed per manufacturer's recommendations.

Sand setting bed. Sand shall be spread over the concrete base slab to the depth indicated on the plans and filter fabric as a setting bed for pavers. Sand shall be spread 1/2 inch to 3/4-inch-thick and leveled to required slope and grade. Maximum thickness of sand shall be 3/4 inch after leveling. Bed shall not be compacted until pavers are installed. Surface tolerance shall be within 1/4 in. of required grade as measured with a 10 ft. straightedge in both the transverse and longitudinal directions.

Paver installation. Setting bed shall be protected from damage prior to setting pavers. Unit pavers shall be set on sand setting bed. Setting shall be done by competent workmen under adequate supervision, and in accordance with manufacturer's recommendations. Pavers with chips, cracks, or other structural or aesthetic defects or those rejected by the Engineer shall not be used. Pavers shall be set true to the required lines and grades in the pattern detailed on the Plans. Pavers shall be tightly butted. Joints between pavers shall be uniform and shall be between 1/16 inch and 1/8 inch (2 to 3 mm) wide. There shall be no raised edges, either pavers or materials adjacent to pavers. The tolerance for such edges shall be 0" - 1/16" maximum in range. Pavers to be installed in the pattern(s) as shown on the drawings. Full pavers are to be laid first. The pavers should be laid hand tight. Maintain straight pattern lines and adjust as necessary.

After a sufficient area of pavers has been installed, the pavers shall be compacted by running a mechanical vibratory compactor over the paved surface until the pavers are uniformly leveled, true to grade, and totally immobilized. Where required, pavers shall be accurately cut with a masonry or concrete saw. Cut pavers shall be placed in such a manner that no segment is smaller than one quarter of a full paver. Cut edges shall be plumb and straight. Scoring and breaking shall not be acceptable.

Prior to application of Joint-Lock Sand, make sure the surface is dry and the paver joints are clean. Pour sand evenly over the area. Sweep the sand repeatedly over the paver stone joints until they are completely filled with sand. When joints are filled, paver surfaces shall be swept clean of sand. Paver edgings shall be installed per manufacturer's recommendations.

Use a low amplitude, high frequency plate vibrator capable of 3000 to 5000 lbs. centrifugal compaction force to vibrate the pavers into the sand. Vibrate the pavers, sweeping dry polymeric sand into the joints and vibrating until they are full. This will require at least two or three passes with the vibrator. Do not vibrate within three feet of the unrestrained edges of the paving units.

All work to within three feet of the installed face must be left fully compacted with sand-filled joints at the completion of each day.

After completion of the unit pavers, paver installation areas shall be thoroughly swept clean and surface shall be left unsoiled. Where required by the Engineer, surface shall be cleaned with water or an approved cleaner.

The Contractor shall return to the site one month after installation is complete to inspect polymeric sand in joints. The Contractor is responsible for adding additional polymeric sand to fill joints where necessary.

The final surface elevations shall not deviate more than 3/8 inch under a 10-foot long straightedge. The surface elevation of pavers shall be 1/8 to 1/4 inch above adjacent drainage inlets, concrete curbs or retaining edge.

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

Basis of Payment. This work shall be paid for at the contract unit price per square foot for BRICK SIDEWALK.

DECORATIVE SIGN POST

Description. This work shall consist of furnishing and installing sign posts, trim, finials, bases and foundations for the proposed stop signs. Shop drawings shall be submitted by the Contractor for approval.

Construction Requirements. The post, finial, and all other materials shall be supplied by Brandon Industries, McKinney TX, phone number (972) 542-3000.

- The post shall be fluted with a hunter green powder-coating, have a 3” outer diameter, and a height of 10 feet above the surface; Brandon Industries part number SP3X10.
- The post shall be topped with a hunter green powder-coated final; Brandon Industries model FIN-A3.
- A decorative base (Brandon Industries part number SB-22) shall be included with each pole.
- Mounting requirements: The posts shall be mounted as per the details in the plans.

The post, trim, finial, and base shall be installed per the manufacturer’s requirements.

Basis of Payment. This work shall be paid for at the contract unit price per each for DECORATIVE SIGN POST.

SANITARY SEWER, DUCTILE IRON, 8”

Description. This work shall conform to Section 550 of the Standard Specifications and to the Standard Specifications for Water and Sewer Main Construction in Illinois.

Construction Requirements. The excavation, bedding, pipe laying, backfilling, and clean up shall be completed in accordance with the applicable portions of Divisions II and III of the Standard Specifications for Water and Sewer Main Construction in Illinois. The bedding for the pipe shall be CA-11 or CA-13 coarse aggregate and shall be placed from 6" below the pipe to 12" over the top of the pipe. The cost for the bedding shall be included in the work.

Materials. All sanitary sewer pipe materials shall conform to the latest applicable ANSI, ASTM, AWWA, AASHTO, or other nationally accepted standards. Ductile-Iron pipe shall meet the minimum requirements for Thickness Class 50.

The name of the manufacturer, class and date of issue shall be clearly identified on all sections of pipe. The contractor shall also submit bills of loading, or other quality assurance documentation when requested by the Engineer.

All sanitary sewer pipes will be bedded in select granular material conforming to the gradation of CA 7.

All trenches for sanitary sewers falling under or within five (5) feet of proposed or existing paved surfaces, or structures shall be backfilled with trench backfill.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price per foot for SANITARY SEWER, DUCTILE IRON, 8”.

RAILROAD FLAGGER

Description. The Contractor shall contact the BNSF Railroad to provide flaggers in accordance with the provisions below and as required by BNSF Railway. It shall be the Contractor’s responsibility to determine the number of flaggers/flagger days required to complete the work.

Requirements.

- A BNSF Flagger is a BNSF employee that coordinates between BNSF forces, contractor employees, BNSF dispatchers, and BNSF trains.

- BNSF will have a live Flagger present during any contractor construction anytime on BNSF Right-of-Way, but usually more specifically within 25 feet of an adjacent rail, or in the case that any tall equipment could enter or tip into the 25-feet zone nearest to an adjacent rail.

- Flagging services are required when projects are within close proximity to active rail lines, as mandated by federal law.

- Flagging services can only be performed by qualified BNSF personnel or by rules qualified individuals approved by BNSF.

- Arrangements for flagging services must be requested from the BNSF Roadmaster 30 days prior to the start of construction. The BNSF MPP can provide BNSF Roadmaster contact information, or it will be included in the permit or other BNSF contract.

- The final determination of whether flagging will be required and the cost of same will be at the sole discretion of the BNSF Roadmaster.

- A Flagger will typically need to work for one hour prior to the contractor starting work and one hour after the contractor has completed work for the day. The invoice to the Proponent or contractor will reflect as such.

- For initial planning purposes, the estimated cost for one Flagger can be approximately $1,600 per basic eight-hour day, with time and one-half or double time for overtime, rest days, and holidays. Note that actual Flagger cost is subject to change and should be confirmed with BNSF Public Projects team.

Method of Measurement. RAILROAD FLAGGER will not be measured for payment.

Basis of Payment. This work will be paid for as per Article 109.05 of the Standard Specifications.

CONCRETE PAVER PAVEMENT

Description. This work shall consist of all work and materials required for the construction of a concrete paver pavement in accordance with the details shown in the plans and as specified herein.

Materials. The pavers shall satisfy the following requirements:

ASTM C1319 Standard Specifications for Concrete Grid Paving Units.
Conforms to:

- C140 for Absorption and Compressive Strength > 8,000 PSI
- C67 for Freeze-thaw Durability
- C418 for Abrasion Durability

Void Space: 40%

Load Capacity: Capable of supporting H20 loading.

Compressive strength that exceeds 5,000 PSI with:

- 4% absorption avg.
- 5% absorption max.
- Dimensional Accuracy +/- 1/8”

Dimensions: 23.625" X 15.75" X 3.125"

Proposed Topsoil, Seeding, Bedding Sand, Aggregate Base Course, Type B 8", and the Geotechnical Fabric shall meet the requirements of the applicable sections of the Standard Specifications and shall be included in the work.

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

Basis of Payment. This work shall be paid for at the contract unit price per square yard for CONCRETE PAVER PAVEMENT.

COARSE AGGREGATE

Description. This work shall consist of placing coarse aggregate at the locations as shown on the plans.

Materials. The aggregate shall be CA 1 and shall satisfy the material and gradation requirements of Article 1004.01 of the Standard Specifications.

Construction Requirements. The coarse aggregate shall be placed loosely, as directed by the Engineer.

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

Basis of Payment. This work will be paid for at the contract unit price per ton for COARSE AGGREGATE.

SANITARY SEWER REMOVAL 8"

Description. This work shall be completed in accordance with Section 551 of the Standard Specifications, except that the sanitary sewer shall not be salvaged, but shall be discarded in accordance with Article 202.03 of the Standard Specifications.

Method of Measurement. This work will be measured for payment in units of feet.

Basis of Payment. This work will be paid for at the contract unit price foot for SANITARY SEWER REMOVAL 8"

TOPSOIL FURNISH AND PLACE, SPECIAL

Description. This work shall consist of furnishing and placing planting soil.

Materials. Planting soil shall be loamy soil from the A horizon of soil profiles of local soils. Loamy soil and the A horizon soil profile are defined in the IDOT Geotechnical Manual. The loamy soil shall have an organic content between one and ten percent according to AASHTO T 194. It shall be relatively free from large roots, sticks, weeds, brush, or stones larger than

1 in.(25 mm) in diameter, or other waste products. At least 90 percent shall pass the No. 10 (2.00 mm) sieve according to Illinois Modified AASHTO T 27, and the pH shall be between 5.0 and 8.0 according to ASTM D 4972.

Planting soil shall be free of any residual herbicides and capable of supporting and germinating vegetation.

Furnishing and Excavating Planting Soil. The Contractor shall furnish any planting soil from a source beyond the project site. A sample with an indicated source must be supplied to the Engineer for their approval prior to its installation.

Placing Planting Soil. Planting soil shall not be placed until the area to be covered has been shaped, trimmed, and finished. All irregularities or depressions in the surface due to weathering or other causes shall be filled or smoothed out before the planting soil is placed. If the existing surface has become hardened or crusted, it shall be disked or raked or otherwise broken up so as to provide a bond with the lift of planting soil to be applied.

Planting soil depths shall be a minimum of 12” in all planting beds and 30” in tree pits.

Finishing. The surface of the planting soil shall be free from clods, stones, sticks and debris and shall be according to the lines, grades as shown on the plans. One rolling of the entire surface shall be made.

Clearing Area and Disposal of Surplus Material. Upon completion of the work, all areas shall be cleared of equipment, debris, and excess material. Surplus or waste material resulting from construction operations shall be disposed of according to Article 202.03. of Illinois Department of transportation Standard Specifications Current Edition.

Basis of Payment. This work shall be paid for at the contract unit price per cubic yard for TOPSOIL FURNISH AND PLACE, SPECIAL.

AGGREGATE SURFACE COURSE FOR TEMPORARY ACCESS

Revise Article 402.10 of the Standard Specifications to read:

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

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

(a) Private Entrance. The minimum width shall be 12 ft (3.6 m). The minimum compacted thickness shall be 6 in. (150 mm). The maximum grade shall be eight percent, except as required to match the existing grade.

(b) Commercial Entrance. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The maximum grade shall be six percent, except as required to match the existing grade.

(c) Road. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The grade and elevation shall be the same as the removed pavement, except as required to meet the grade of any new pavement constructed.

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

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

Add the following to Article 402.12 of the Standard Specifications:

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

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

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

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

(a) Upon construction of the temporary access, sixty percent of the contract unit price per each, of the type constructed, will be paid.

(b) Subject to the approval of the Engineer for the adequate maintenance and removal of the temporary access, the remaining forty percent of the pay item will be paid upon the permanent removal of the temporary access."

PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL

Description. This work consists of placing concrete sidewalk over Aggregate Base Course Type B, as shown on the detail in the plans. The aggregate base course will not be paid for separately. This work shall be completed in accordance with Sections 351 and 424 of the Standard Specifications.

Basis of Payment. This work shall be paid for at the contract unit price per square foot for PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, SPECIAL.

DETECTABLE WARNINGS (SPECIAL)

Description: This work shall consist of furnishing and installing detectable warnings in accessibility ramps.

Materials: The detectable warnings shall be cast iron panels of the sizes shown on the plans and shall meet the following material specification:

The detectable warning plate shall be constructed of gray iron meeting the requirements of Article 1006.14 of the "Standard Specifications" and ASTM A48, CLASS 35B; or cast ductile iron meeting the requirements of Article 1006.15 of the "Standard Specifications".

General: The installation of detectable warnings shall meet the requirements of Article 424.09 of the Standard Specifications.

Method of Measurement: This work will be measured for payment in place installed, in square feet. The concrete area under the detectable warnings will be measured for payment as PORTLAND CEMENT CONCRETE SIDEWALK of the thickness specified, with no deductions made for the detectable warnings panels located within the ramp.

Basis of Payment: This work will be paid for at the contract unit price per square foot for DETECTABLE WARNINGS (SPECIAL).

MANHOLES, SANITARY, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID

Description. This work shall consist of constructing manholes of the size indicated on the plans, together with the necessary cast iron frames and lids, in accordance with the details shown on the plans. The work shall include furnishing and installing an internal or external chimney seal

Manholes constructed over proposed or existing sanitary sewers and which are indicated on the plans as sanitary manholes shall be provided with rubber gasketed couplings to ensure a watertight seal between pipe and manhole. The rubber gasketed couplings shall conform to ASTM Specification C-923. Sanitary manholes shall be provided with cast iron steps on 16" centers from frame to invert. The rubber gasketed couplings and steps shall be included in the cost of sanitary manholes and will not be paid for separately.

Type 1 frame, closed lid shall be used on all manholes. Lids for sanitary manholes shall have the word "SANITARY" cast into them.

The Contractor is responsible for tying in all existing sanitary sewers to the proposed structure as required. Up to 10 feet of new sewer (if required) for each existing sewer tying into the

proposed structure shall be considered included to this pay item. The Contractor shall be responsible for verifying the size, inverts and locations of the existing sewers to be connected to the proposed structure. Any existing sanitary sewers that are damaged during construction shall be replaced in kind by the Contractor at no cost to the contract. In addition, the Contractor will be responsible for determining which structures require precast concrete flat slab tops in accordance with Standard Drawing 502601. Flat slab tops will only be allowed where a conical section cannot be installed due to a lack of clearance.

Sanitary manholes shall be tested for watertightness in accordance with Section 32-12 of the Standard Specifications for Sewer and Water Construction in Illinois.

Adjusting the frames and lids to final grade (regardless of when the adjustment is completed) will not be paid for separately but will be included in the cost of the work.

Method of Measurement and Basis of Payment. This work shall be paid for at the contract unit price per each for MANHOLES, TYPE A, SANITARY, TYPE 1 FRAME, CLOSED LID, of the diameter specified.

SANITARY MANHOLES TO BE ADJUSTED

Description. This work shall consist of adjusting sanitary sewer manholes.

Construction Requirements. The frame and lid shall be set in a full bituminous mastic bed or approved rubber gasket seal. The frame and lid shall be set accurately to the finished elevation so that no subsequent adjustment will be necessary. A chimney sealing system shall also be furnished.

Adjusting rings shall be in accordance with Section 1042, Article 1043.02 or Article 1043.03 of the Standard Specifications. The minimum thickness for concrete adjusting rings shall be 2”.

Basis of Payment. This work will be paid for at the contract unit price per each for SANITARY MANHOLES TO BE ADJUSTED.

SANITARY MANHOLES TO BE REMOVED

Description. This work shall consist of removing sanitary sewer manholes.

Construction Requirements. This work shall be completed in accordance with Section 605 of the Standard Specifications.

Basis of Payment. This work will be paid for at the contract unit price per each for SANITARY MANHOLES TO BE REMOVED.

STEEL POSTS, SPECIAL

Description. This work shall consist of furnishing and installing sign posts and bases. Shop drawings shall be submitted by the Contractor for approval.

Materials. The material for the poles furnished must be hollow steel tubes, 2-3/8" outside diameter, conforming to ASTM A500 Grade B and coated for resistance to corrosion and outdoor weathering. Nominal wall thickness of pole must be 0.08". The sign pole must be formed to the size and type specified in the Contract Drawings. Holes must be drilled prior to coating to prevent indentations and dimples in the poles.

Finish: The poles must be galvanized, straight and have a smooth, hunter green, uniform powder coating finish as specified below. The interior of the sign poles must be coated with a minimum of an 81% zinc rich primer. The exterior of the poles must be galvanized with material conforming to AASHTO M 120 with a minimum weight of 1.00 ounce per square foot. The weight of the exterior galvanizing may be reduced to 0.65 ounces per square foot of High Grade material conforming to AASHTO M120 if applied with a chromate conversion coating and a clear high performance organic polymer coating. Powder coating of the poles and extensions must meet the following requirements:

Color:	Hunter Green
Cure:	400F-18 minutes PMT
Resin type:	Polyester
Gloss:	Medium

Pretreatment Process:

Cleaning: All parts must be cleaned utilizing spray washers and an alkaline cleaner to remove any remaining grease, dirt, or other contaminants.
Rinsing: All parts must be spray rinsed in a continuously overflowing rinse stage to remove any remaining cleaning solution.
Phosphating: All parts must be spray phosphated in a heated phosphate solution to provide a transition coating between metal and powder.
Rinse: All parts must be spray rinsed in a continuously overflowing rinse stage to remove any remaining phosphate / sealant solution.

Powder Coating Process:

Drying: All parts must be preheated to eliminate moisture and prevent offgassing of casting.
Powder Coating: A premium TGIC polyester powder must be electrostatically applied to provide a uniform coating to a thickness of 1-3 mils (1 mil minimum). To achieve proper mil thickness, the powder must be applied with one application. The vendor must be responsible for ensuring proper adhesion to the metal surface.
Curing: All parts must be heated to the exact time and temperature requirements, recommended by the powder coat material manufacturer, in precisely controlled gas ovens.

Sign Pole Base: The sign pole base furnished under this contract includes a carriage bolt, tamper-resistant nuts, and anchor bolts with nuts. The finished casting must be free from burrs, cracks, voids, or other defects.

Support base: Twelve-inch diameter, aluminum -zinc alloy casting per ASTM A197. The casting must have the words "Village of Coal City" cast in relief.

Bolt washers and nut: Stainless steel as specified in Article 1006.31a of the Standard Specifications. Include a 1" x 4-1/2"carriage bolt with two 1"flat washers and a 1" x 13 full height hex nylon locknut.

Anchor Bolt: Galvanized steel expansion anchors conforming to Article 1006.09 of the Standard Specifications. Red Head #1236 ("x 3-3/4"). Furnish three per each sign base provided.

Finish: Powder coat to minimum 1 mil thickness with satin black polyester finish.

Submittals.
Shop Drawings: Fabrication shop drawings showing the full-size layout, color, and proposed materials for poles, bases, and hardware must be submitted for approval prior to start of fabrication.

Poles: Mill certification, samples of each size of finished pole and extension. Locking wedge and sleeve: Samples of each item.

Cast aluminum base: Mill Certifications.

Powder coating: Test Data; Sample – Manufacturer's Certification that material complies with the required specifications.

Galvanizing: Manufacturer's Certification for compliance with these specifications.

Stainless steel bolts and nuts, anchor bolts: sample, product data sheet.

Installation: The base will be secured to the concrete or brick surface by steel expansion anchors and must be leveled by using stainless steel washers as shims at the anchor bolt locations and under the base castings. The sign pole will be installed into the cast iron base and locked in place with a carriage bolt with two flat washers and a nylon lock nut. The holes at the top of the sign pole must be aligned such that the sign to be installed will properly face the flow of traffic.

Method of Measurement. STEEL POSTS, SPECIAL will be measured per each post furnished and installed.

Basis of Payment. This work shall be paid for at the contract unit price per each for STEEL POSTS, SPECIAL.

TRAFFIC CONTROL AND PROTECTION, (SPECIAL)

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

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

An IDOT BSPE 725, Traffic Authorization form shall be completed and submitted to the Department prior to the placement of traffic control devices on Illinois Route 113.

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

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

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

CHANGEABLE MESSAGE SIGN

The Contractor shall provide portable message signs in accordance with Articles 701.15(j) and 1106.02(i) of the Standard Specifications. The message signs shall be used as directed by the Engineer. It is anticipated that the message boards will be displayed for one week before construction begins and one week before changes in traffic patterns. One message board shall be placed at each of the two locations shown below, as directed by the Engineer:

- Broadway Street at IL 113
- Broadway Street at Walnut Street

Basis of Payment. Changeable message signs will be paid for at the contract unit price per calendar day.

SIGN PANEL – TYPE 1 (SPECIAL)

Description. This work shall consist of furnishing and installing stop signs on to Decorative Sign Posts. Shop drawings shall be submitted to the Engineer for approval.

Construction Requirements. The stop signs and all other materials shall be supplied by Brandon Industries, McKinney TX, phone number (972) 542-3000.

- The stop sign shall be 30” x 30” and the back shall have a powder-coat hunter green finish. The stop sign shall be Brandon Industries part number STOP3030 with high

intensity Type ZZ sheeting.
- The stop signs shall include a hunter green powder-coated decorative trim; Brandon Industries part number STOPTRM30.

The stop sign shall be installed per the manufacturer's requirements.

Measurement and Payment. This work shall be paid for at the contract unit price per square foot for SIGN PANEL – TYPE 1 (SPECIAL).

SANITARY SEWERS, PVC, 8"

Description. This work shall conform to Section 550 of the Standard Specifications and to the Standard Specifications for Water and Sewer Main Construction in Illinois.

Construction Requirements. The excavation, bedding, pipe laying, backfilling, and clean up shall be completed in accordance with the applicable portions of Divisions II and III of the Standard Specifications for Water and Sewer Main Construction in Illinois. The bedding for the pipe shall be CA-11 or CA-13 coarse aggregate and shall be placed from 6" below the pipe to 12" over the top of the pipe. The cost for the bedding shall be included in the work.

Materials. All sanitary sewer pipe materials shall conform to the latest applicable ANSI, ASTM, AWWA, AASHTO, or other nationally accepted standards. Only the following sanitary sewer pipe and joint materials are approved for use in the Village of Coal City.

1. Polyvinyl Chloride (PVC) pipe conforming to ASTM D2241 (SDR 26) with elastomeric gasket type joints conforming to ASTM F477 and ASTM D3139.

2. Polyvinyl Chloride (PVC) pipe conforming to AWWA C900 (DR 18) with joints conforming to ASTM D3139.

3. Polyvinyl Chloride (PVC) pipe conforming to AWWA C905 (DR 25) with joints conforming to ASTM D3139

The name of the manufacturer, class and date of issue shall be clearly identified on all sections of pipe. The contractor shall also submit bills of loading, or other quality assurance documentation when requested by the Engineer.

All sanitary sewer pipes will be bedded in select granular material conforming to the gradation of CA 7.

All trenches for sanitary sewers falling under or within five (5) feet of proposed or existing paved surfaces, or structures shall be backfilled with trench backfill.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price per foot for SANITARY SEWERS, PVC, 8".

TREE FRAME AND GRATES

Description Work under this item consists of furnishing and installing cast iron tree grates, grate frames, and P.C.C thickened slabs. Each installation shall consist of three grates (one grate with a tree opening and two grates without tree openings).

Material The material must be gray iron castings conforming to A.S.T.M. A48 or A-48-75, class 35 or 5B, and Article 1006.14 of the Standard Specifications. Concrete must be Class SI and conform to the requirements of Section 1020 of the Standard Specifications.

Grate pattern must comply with ADA Guidelines. Tree grates will be 5' x 5' x 1.5" thick with accompanying frame. Grate will consist of two halves with 12" minimum diameter opening for trees. Grate openings must meet or exceed ADA Standard. Grate dimensions will be specified in plans. Grate halves must be bolted together with tamperproof bolts, and the grate must also be bolted to the frame with tamperproof bolts.

Frame must be 1 ¾" x 1 ¾" x ¼" steel frame, or must coordinate with grate dimensions, surrounding the entire perimeter of the tree pit. Frame must be manufactured with anchor tabs for concrete installation.

Manufacturer
Tree grates shall be supplied by the following manufacturer:

Neenah Enterprises, Inc.
R-8713 60" x 60" 'Boulevard' NO TREE OPENING
R-8754-1 60" x 60" 'Greenwich'

Fasteners
Tree grate halves must be joined together with tamper resistant bolts and fastened to grate frame with tamper resistant bolt assembly packages as provided by the manufacturer.

Opening to Receive Grates
Sub-base granular material Type B must be placed and compacted to 95% proctor prior to installation of frame. Frame will then be placed on top of compacted sub-base surface. Wood forms must be placed inside frame to prevent concrete seepage into pit area, and expansion joints place on the outside of the frame. Concrete walk/brick pavers will then be placed around frame and allowed to set until firm. The concrete and installation of Sub-Base Granular Material Type B will not be paid for separately but will be included in the cost of the work.

If installing grate at back of curb, a C-channel must be installed at curb to accept tree grate frame. Hilti-type Anchoring system for C-channel must have a minimum shear capacity of 12 kips live wheel load. Detailed product information must be submitted for approval prior to installation.

Join Grate Halves

Bring tree grate halves together around tree at a level to allow easy access to underside. Join sections at preformed holes using temper-resistant bolt packages provided by manufacturer as suggested. Lower grate into place and bolt to frame with tamper-proof resistant bolts. If grate manufacturer cannot accomplish this, then the grates and frame must be tapped, field drilled, and bolted on site. The cost for this work and equipment will be included in the work.

Material Under Grate
Soil shall be paid for as Topsoil Furnish and Place, Special.

Mulch must be 3" in depth, free of foreign materials. The cost of furnishing and installing mulch will be included in the cost of this item.

The Contractor shall remove all litter and plant and repair grade by raking and adding Planter Soil Blend, as needed, before placing mulch. Care must be taken not to bury leaves, stems, or vines under mulch.

All finished mulch areas must be left smooth and level to maintain a uniform surface and appearance. All tree grate areas or work areas must be clean of debris and mulch, prior to leaving the site.

Method of Measurement. Tree frame and grates will be measured for payment per each location (consisting of three tree grates).

Basis of Payment. This work shall be paid for at the contract unit price per each for TREE FRAME AND GRATES.

BRICK PAVER SIDEWALK ON RIGID BASE

Description. This work shall consist of furnishing and installing unit pavers units on a prepared sand bed and concrete base. This work shall also include all required sand setting bed, and paver joint material. All labor and materials required to complete the work, including the concrete base, shall be included in this pay item.

Materials. The unit paver fields for the median shall be a 50 / 50 blend of the Holland Premier, colors Brown and Harvest Brown as manufactured by Unilock.

Unilock Chicago, Inc.
301 E. Sullivan Road
Aurora, IL 60505
1-800-UNILOCK

Sand setting bed and joint sand shall be clean, non-plastic, free from deleterious or foreign matter. The sand shall be natural or manufactured from crushed rock. Grading of samples shall be done according to ASTM C136. The particles shall be sharp and conform to the grading requirements of ASTM C33 as shown in Table 1.

Table 1
Grading Requirements for Bedding and Joint Sand

Sieve Size	Percent Passing
3/8 in.	100
No. 4	95 to 100
No. 8	80 to 100
No. 16	50 to 85
No. 30	25 to 60
No. 50	10 to 30
No. 100	2 to 10

Installation. The concrete pavers shall be installed as per the special provision for Brick Pavers. The vertical bricks shall be attached to the vertical face of the concrete base with an adhesive that is approved by the Engineer.

Submittals. Submit samples of brick paving units to indicate color and size selections. Color will be selected by Village from manufacturer's available colors.

Basis of Payment. This work shall be paid for at the contract unit price per square foot for BRICK PAVER SIDEWALK ON RIGID BASE.

ORNAMENTAL STREET SIGN POST, COMPLETE

Description. This work shall consist of furnishing and installing street name signs, posts, and bases/foundations. Shop drawings shall be submitted to the Engineer for approval.

Materials. The posts and bases/foundations shall be in conformance with the special provision for Steel Posts, Special. The signs shall meet the requirements of Section 720 of the Standard Specifications. All steel must be domestically produced.

Signing. The street name signs shall be retroreflective to show the same shape and similar color both day and night. The lettering shall be white and the background green.

Lettering on street name signs shall be composed of initial upper-case letters that are 6 inches in height and lower-case letters that are 4.5 inches in height.

The Contractor shall submit shop drawings of the street name signs, including the pictograph that is shown on the details in the plans.

Measurement and Payment. This work shall be paid for at the contract unit price per each for ORNAMENTAL STREET SIGN POST, COMPLETE.

PARK BENCH REMOVAL AND RELOCATION

Description. This work shall consist of removing an existing park bench and delivering it to the Coal City Public Works Department.

Construction Requirements. The Contractor shall take extra care when removing the park bench so as not to damage it. Excess concrete shall be removed from the setting posts before delivery to Public Works.

Basis of Payment. This work shall be paid for at the contract unit price per each for PARK BENCH REMOVAL AND RELOCATION.

PEDESTRIAN BENCH, FURNISH AND INSTALL

Description. This work shall consist of furnishing all labor, materials, tools, equipment, and incidentals necessary to install pedestrian benches, including all footings, and supports

Construction Requirements. Pedestrian benches shall be installed per the manufacturer's recommendations. The Contractor shall protect the pedestrian benches before, during, and after installation.

Materials. Keystone Ridge Designs
C-SC26 'Schenley' 6' bench with back – recycled plastic
Frame Color: Hunter Green

All steel must be domestically produced.

Basis of Payment. This work shall be paid for at the contract unit price per each for PEDESTRIAN BENCH, FURNISH AND INSTALL.

TRASH RECEPTACLE, FURNISH & INSTALL

Description. This work shall consist of furnishing all labor, materials, tools, equipment, and incidentals necessary to install trash receptacles with ash urns, including all footings, and supports.

Construction Requirements. Trash receptacles with ash urns shall be installed per the manufacturer's recommendations. The Contractor shall protect the trash receptacles before, during, and after installation.

Materials. Trash Receptacles - Keystone Ridge Designs
RE3-32 'Reading Round'
Color: Hunter Green

Ash Urn -Keystone Ridge Designs
TI5 'Tipster Ash Urn'
Mounted to litter receptacle
Color: Hunter Green

The trash receptacle and urn shall be cast from domestically produced steel.

Basis of Payment. This work shall be paid for at the contract unit price per each for TRASH RECEPTACLE, FURNISH & INSTALL.

BICYCLE RACKS

Description. This work shall consist of furnishing all labor, materials, tools, equipment, and incidentals necessary to install bike racks. Bicycle Racks, Type 1 shall include the Village of Coal City logo, as per the detail in the plans. Bike Racks, Type 2 shall be constructed without the Village of Coal City logo, as per the detail in the plans.

Construction Requirements. Bicycle racks shall be installed per the manufacturer's recommendations and the details in the plans. The Contractor shall protect the bicycle racks before, during, and after installation. Distance between racks shall be 36 inches. Racks shall be placed a minimum of 36 inches from the street.

Installer Qualifications: An experienced installer who has completed installation of bicycle racks similar in material, design, and extent to that indicated for this project and whose work has resulted in construction with a record of successful in-service performance.

Materials. 1.5" schedule 40 uncoated pipe (1.90" OD). The bicycle racks shall be cast from domestically produced steel.

Finish. Thermoplastic Green

Basis of Payment. This work shall be paid for at the contract unit price per each for BICYCLE RACK, of the type specified.

BOLLARDS

Description: This item shall consist of furnishing and installing a concrete filled steel bollard for protection of a light pole at the location shown on the plans.

Materials and Construction Requirements: The bollard shall be 6" diameter schedule 40 steel mounted at 48" above grade with a 42" minimum burial depth. The bollard shall be

installed in 24" diameter drilled hole. The hole shall be backfilled with concrete along with the interior of the pipe. The bollard shall be covered with a yellow, plastic bollard cover that is ¼" in thickness. The bollard cover shall have a domed top and shall be permanently affixed to the bollard.

Measurement and Basis of Payment: This work shall be paid for at the contract unit price per each for BOLLARDS.

PERENNIAL PLANTS, ORNAMENTAL TYPE, GALLON POT

Description. This work shall include all labor, materials and equipment necessary to furnish, transport and plant perennial vegetation in the median planter, north of the railroad tracks. This work shall be done in accordance with the applicable portions of Sections 253 and 254 of the Standard Specifications, as shown on the plan details, as specified herein, and as directed by the Engineer. This work shall also include fertilizer. A list of plant material may be found on the plans.

General Requirements.

References:
All materials shall conform to the standards adopted by the American Association of Nurserymen.

Scheduling:
Fall planting shall be performed from the time the plant becomes dormant until the ground cannot be satisfactorily worked.

Quality Assurance:
All vegetation shall be obtained from a grower in hardiness zones of comparable local climatic range to the Village and subject to the approval of the Engineer.

Inspections:
An inspection on site will be made prior to the installation of plant material. Any plant material not meeting specification (that being of good health) must be moved off the site.

Construction Requirements.

Plant Delivery, Storage and Handling:
Schedule delivery to avoid storage on site. If planting does not occur immediately, store bulbs in a location protected from sun, weather and theft.

Protect bulbs prior to planting. Damaged bulbs will be rejected on site.

Soil Mix:
This work will be paid for separately as Topsoil Furnish and Place, Special.

Shredded Hardwood Bark Mulch:
This work will be paid for separately as Shredded Bark Mulch 3".

Fertilizer:
All fertilizer shall be a commercial balanced 10-6-4 fertilizer delivered to the site in bags labeled with the manufacturer's guaranteed analysis. The fertilizer shall be applied to mass planting beds and individual trees at the manufacturer's recommended rate.

Excavation of Plant Holes:
Shape: The sides of all plant holes shall be sloped and the bottoms horizontal.
Size: Ground cover and perennial excavations shall be a minimum diameter and depth of the container plus 8 inches.

All excess excavated material shall be removed from the site.

Planting:
Remove all rocks and debris over 1/2" in diameter from planting beds. Install soil mix in all planting beds, place in 6 inch thick layers. Work each layer by hand to compact soil mix and eliminate voids. Prepared backfill soil shall be in a loose friable condition at the time of planting. All plants shall be placed in a plumb position and set at the same depth as they grew in the nursery field. Tamping or watering shall accompany the backfilling operation to eliminate air pockets.

Container Grown Plants:
Prior to placing the plant in the hole, the container shall be removed with care so as not to disturb the root system.

After planting apply and prior to mulching apply a pre-emergent herbicide to all mass planting beds. Apply per manufactures instructions for application.

Install shredded hardwood bark mulch over the planting beds at a 3" depth minimum.

Guarantees:
The Contractor shall guarantee the plant material for a period of one year after Date of Substantial Completion of total Project. The Contractor shall replace any and all plant material, which has not survived the guarantee period.

Within this period of the guarantee, plants replaced by approval of the Engineer's Landscape Architect shall be guaranteed for 1 year from date of replacement.

At any time within the period of the guarantee, the Contractor shall replace any plant, which has died or is in a dying condition, or has failed to flourish in such a manner or is such a degree that its usefulness or appearance has been impaired due to inferior or defective materials or workmanship, or unfavorable weather conditions. The decision of the Landscape Architect for making replacements shall be conclusive and binding. The Contractor shall also make good damage to persons or property caused by defective workmanship or materials.

Method of Measurement. This work will be measured for payment in accordance with Article 254.09 of the Standard Specifications.

Basis of Payment. This work will be paid for in accordance with Article 254.10 of the Standard Specifications.

STORM SEWERS, CLASS B

Description. This work shall be completed in accordance with Section 550 of the Standard Specifications and the details in the plans, except that the only acceptable material type shall be Corrugated Polyethylene Pipe with a Smooth Interior.

STORM SEWER CONNECTION

Description. This work shall consist of extending blind-connected residential and commercial storm sewer drains from the existing storm sewer to the proposed storm sewer. The existing storm sewer drains will be located by sewer televising and will be connected to the proposed storm sewer at the direction of the Engineer. Televising shall be paid for separately.

Materials. The contractor shall use non-shear, rubber couplings to connect the existing storm pipe to the proposed storm pipe. The new pipe shall be polyvinyl chloride (PVC) sewer conforming to ASTM D-3034 and shall have a Standard Dimension Ratio (SDR) of 26, with push on joints. The blind connection to the proposed storm sewer shall be made by coring a hole into the storm sewer and installing a gasketed PVC hub, rubber sleeve and stainless-steel band. Connection shall be a compression fit into the cored wall of the mainline pipe. The stainless-steel clamping assembly shall be made from minimum 301 grade steel. The rubber sleeve and gasket shall meet ASTM F477 requirements. This pay item covers all diameters of storm sewer drains encountered that are 8 inches or less in diameter.

Basis of Payment. This work will be measured and paid for at the contract unit price per each for STORM SEWER CONNECTION, which price shall include all labor, PVC sewer, connections to existing and proposed sewers, materials and equipment to accomplish the work as detailed above. Trench backfill and sewer televising will be paid for separately.

REMOVAL OF ASBESTOS WATER MAIN

Description: This work consists of the removal and disposal of asbestos-cement (Transite) water main owned by the Village of Coal City. All work shall be done in accordance with the requirements of the U.S. Environmental Protection Agency (USEPA), the Illinois

Environmental Protection Agency (IEPA), the Occupational Safety and Health Administration (OSHA), and as outlined herein.

The work involved in the removal and disposal of friable or non-friable asbestos done prior to executing any water main work shall be performed by a qualified Contractor or Sub-Contractor. The Contractor shall provide a shipping manifest to the Engineer for the disposal of all asbestos containing material wastes.

Permits: The Contractor shall apply for permit(s) in compliance with applicable regulations of the Illinois Environmental Protection Agency. All other permits required by other federal, state, or local agencies for carrying on the work will be the responsibility of the Contractor. Copies of these permits must be sent to the Engineer.

Notifications: The "Demolition/Renovation Notice" form, which can be obtained from the IEPA office, shall be completed and submitted to the agencies listed below at least 10 days prior to commencement of any asbestos removal or demolition activity.

A. Asbestos Demolition/Renovation Coordinator Illinois Environmental Protection Agency Division of Air Pollution Control
P. O. Box 19276
Springfield, Illinois 62794-9276
(217)785-1743

B. U. S. Environmental Protection Agency Air Compliance Branch
77 W. Jackson Blvd.
Chicago, Illinois 60604
Attention: Asbestos Coordinator

Notices must be updated if there is a change in the starting date or the amount of asbestos changes by more than 20 percent

Submittals: All submittals and notices shall be made to the Engineer except where otherwise specified herein.

Submittals that shall be made prior to start of work:

Submittals required under Asbestos Abatement Experience.

Submit documentation indicating that all employees have had medical examinations and instruction on the hazards of asbestos exposure, on use and fitting of respirators, on protective dress, on use of showers, on entry and exit from work areas, and on all aspects of work procedures and protective measures as specified in Worker Protection Procedures.

Submit manufacturer's certification stating that vacuums, ventilation equipment, and other equipment required to contain airborne fibers conform to ANSI 29.2.

Submit to the Engineer the brand name, manufacturer, and specification of all sealants or surfactants to be used. Testing under existing conditions will be required at the direction of the Engineer.

Submit proof that all required permits, site locations, and arrangements for transport and disposal of asbestos-containing or asbestos-contaminated materials, supplies, and the like have been obtained (i.e., a letter of authorization to utilize designated landfill).

Information about vehicles and equipment utilized for transport of material designated for disposal shall be submitted. This should include methods for restricting loose fibers from being released during travel.

Submit a list of penalties, including liquidated damages, incurred through noncompliance with asbestos abatement project specifications.

Submit a project specific Health and Safety plan for the removal operations. The Health and Safety Plan must be approved and signed by sub-contractor and Contractor personnel and shall be provided to the Engineer prior to commencing site work activities. The Contractor shall be and remain liable for compliance by its employees, agents and subcontractors with the Contractor's Health and Safety Plan and procedures for the site and shall hold Engineer and Department harmless from all claims, damages, suits, losses and expenses in any way arising from non-compliance with the Health and Safety Plan.

The Health and Safety Plan shall address personal protection from asbestos fiber releases during asbestos abatement.

Submit a detailed plan of the procedures proposed for use in complying with the requirements of this specification. Include in the plan the location and layout of decontamination units, the sequencing of work, the respiratory protection plan to be used during this work, a site safety plan, a disposal plan including the location of an approved disposal site, and a detailed description of the methods to be used to control pollution. The plan must be submitted to the Engineer prior to the start of work.

Submit proof of written notification and compliance with Paragraph "Notifications."

Submittals that shall be made upon completion of abatement work:

Submit copies of all waste chain-of-custodies, trip tickets, and disposal receipts for all asbestos waste materials removed from the work area;

Submit daily copies of work site entry logbooks with information on worker and visitor access;

Submit logs documenting filter changes on respirators. HEPA vacuums, negative pressure ventilation units, and other engineering controls; and

Submit results of any bulk material analysis and air sampling data collected during the course of the abatement including results of any on-site testing by any federal, state, or local agency.

Certificate of Insurance: The Contractor shall document general liability insurance for personal injury, occupational disease and sickness or death, and property damage.

The Contractor shall document current Workmen's Compensation Insurance coverage. The Contractor shall supply insurance certificates as specified by the Department.

Asbestos Abatement Experience: Prior to start of work, the Contractor shall supply evidence that they have been qualified with the State of Illinois and that they have been included on the Illinois Department of Public Health's list of approved Contractors for asbestos abatement.

Personnel Experience: For Superintendent, the Contractor shall supply evidence of knowledge of applicable regulations in safety and environmental protection is required as well as training in asbestos abatement as evidenced by the successful completion of a training course in supervision of asbestos abatement as specified in 40 CFR 763, Subpart E, Appendix C, EPA Model Contractor Accreditation Plan. A copy of the certificate of successful completion must be provided to the Engineer prior to the start of work.

Documentation of experience with abatement work in a supervisory position as evidenced through supervising at least two asbestos abatement projects; provide names, contact, phone number, and locations of two projects in which the individual(s) has worked in a supervisory capacity.

The superintendent shall be thoroughly familiar with and experienced at asbestos abatement, characterization, bulking, transportation, and disposal activities and other related work, and shall be familiar with and shall enforce the use of all applicable safety procedures and equipment. The Supervisor shall be knowledgeable of, and enforce, all applicable, USEPA, IEPA, and OSHA requirements and guidelines.

For Workers involved in the Removal of Friable and Nonfriable Asbestos the Contractor shall provide training as evidenced by the participation and successful completion of an accredited training course for asbestos abatement workers as specified in 40 CFR 763, Subpart E, Appendix C, EPA Model Contractor Accreditation Plan. A copy of the certificate of successful completion must be provided to all employees who will be working on this project.

Workers shall be familiar with and experienced at asbestos abatement, characterization, bulking, transportation, and disposal activities and other related work; and Asbestos Workers shall be familiar with the use of applicable safety procedures and equipment.

Abatement Air Monitoring: The Contractor shall comply with the following:

Personal Monitoring: All personal monitoring shall be conducted per specifications listed in OSHA regulation, Title 29, Code of Federal Regulation 1926.58. All area sampling shall be conducted in accordance with 40 CFR Part 763.90. All air monitoring equipment shall be calibrated and maintained in proper operating condition. Excursion limits will be monitored daily. Personal monitoring is the responsibility of the Contractor. Additional personal samples may be required by the Engineer at any time during the project.

Contained Work Areas for Removal of Friable Asbestos

Area samples shall be collected for the department within the work area daily. A minimum of one sample shall be taken outside of the abatement area removal operations. The Engineer will also have the option to require additional personal samples and/or clearance samples during this type of work.

Air Monitoring Professional: All air sampling will be conducted by a qualified Air Sampling Professional supplied by the Contractor. The Air Sampling Professional must submit documentation of successful completion of the National Institute for Occupational Safety and Health (NIOSH) course
#582 – "Sampling and Evaluating Airborne Asbestos Dust".

Air Sampling will be conducted in accordance with NIOSH Method 7400. The results of these tests will be provided to the Engineer within 24 hours of the collection of air samples.

Method of Measurement: This work will be measured for payment per foot for REMOVAL OF ASBESTOS CEMENT CONDUIT, as shown for each individual conduit, which price shall include furnishing all labor, materials, equipment and services required to remove and dispose of the friable asbestos cement conduits, fittings and other appurtenances associated with the conduits.

Basis of Payment: This work will be paid for at the contract unit price per foot for REMOVAL OF ASBESTOS WATER MAIN.

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

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

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

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

All contaminated materials shall be managed as either "uncontaminated soil" or non-special waste. This work shall include monitoring and potential sampling, analytical testing, and management of a material contaminated by regulated substances. The Environmental Firm shall continuously monitor all soil excavation for worker protection and soil contamination. **Phase I Preliminary Engineering information is available through the Village of Coal City.** Soil samples or analysis without the approval of the Engineer will be at no additional

cost to the Department. The lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit whichever is less.

The Contractor shall manage any excavated soils and sediment within the following areas:

Parking Lot

- Station 64+75 to Station 66+40 (CL IL 38), 0 to 48 feet RT (Parking Lot, 35 S. Broadway Street, Coal City): (3-5) Exceeded the MACs for benzo(a)anthracene for disposal within a populated area in a MSA county excluding Chicago, within Chicago corporate limits, within a populated area in a non-MSA county, and outside of a populated area. (5-7) exceeded the MACS for benzo(a)pyrene for disposal outside of a populated area. Soils from 0-5 feet bgs are considered to be 669.09 (a)(5) soils. Soils from 5-8 bgs are considered to be 669.09 (a)(3) soils and shall be managed in accordance with Article 669.09 of the Standard Specifications.

Onorato Insurance Services

- Station 53+35 to Station 54+20 (CL IL 38), 8 to 58 feet RT (Onorato Insurance Services, 335 S. Broadway Street, Coal City): (5-7) exceeded the MACs for total arsenic. These soils are considered to be 669.09 (a)(5) soils and shall be managed in accordance with Article 669.09 of the Standard Specifications.

Campbell Memorial Park

- Station 43+00 to Station 45+55 (CL IL 38), 0 to 50 feet LT (Campbell Memorial Park, 580 S. Broadway Street, Coal City): (1-3) exceeded the MACs for total arsenic. These soils are considered to be 669.09 (a)(5) soils and shall be managed in accordance with Article 669.09 of the Standard Specifications.

Parking Lot

- Station 40+80 to Station 42+00 (CL IL 38), 0 to 50 feet LT (Parking Lot, 620 S. Broadway Street, Coal City): (3-5) Exceeded the MACs for naphthalene for disposal within a populated area in a MSA county excluding Chicago, within Chicago corporate limits, within a populated area in a non-MSA county, and outside of a populated area. Soils from 0-5 feet bgs are considered to be 669.09 (a)(5) soils and shall be managed in accordance with Article 669.09 of the Standard Specifications

At the Parking Lot property (620 S. Broadway Street), naphthalene was detected at concentrations exceeding the TACO Tier 1 remediation objective for the inhalation pathway of the Construction Worker exposure route from the sample interval 0 to 8 feet deep, as noted in the Final Preliminary Site Investigation Report for this project, submitted November 7, 2018 by Huff & Huff, Inc.

Procedures shall be implemented to protect site workers and observers from hazards encountered during construction activities in locations containing contaminated materials, pursuant to Article 669.06 of the Standard Specifications for Road and Bridge Construction manual.

TELEVISION INSPECTION OF SEWER

Closed circuit internal inspection shall be performed of the existing storm sewer on the east side of Broadway Street and recorded on DVD-Rs. A type written report shall accompany the video record and become the property of the VILLAGE. The purpose of the televising is to locate the blind connections to the storm sewer.

SEWER TELEVISING CRITERIA

The television camera used for the inspection shall be one specifically designed and constructed for such sewer inspection and shall be capable of inspecting up to 1,200 lineal feet of sewer from a single access point. The camera shall provide a color recorded image and be equipped with a rotating imaging unit for viewing lateral connections, defects, and other objects discovered in the sewer. In this respect the camera shall have a high-resolution lens capable of spanning a 360-degree circumference and 270 degrees on a horizontal axis. The focal length shall be adjustable through a range of one inch to infinity. Lighting for the camera unit shall be suitable to allow a clear picture for the entire periphery of the pipe. The camera shall be operative in 100% humidity conditions.

The Contractor shall provide equipment that is adaptable for use in the pipe size ranges included under the Proposal. The Contractor shall have available self-propelled crawler transport units for mounting the television camera, so that sewer segments which prove inaccessible to standard cable pulled inspection can be accessed and viewed. Picture quality and definition shall be to the satisfaction of the Engineer and if unsatisfactory, equipment shall be removed, and no payment made for unsatisfactory inspection.

The inspection shall involve the visual observation by closed circuit television. The television camera shall be moved through the sewer at a rate of speed which will allow examination of the blind connections, but in no case at a speed greater than 30 feet per minute.

Whenever non-remote powered and controlled winches are used to pull the television camera or motorized-tractor camera units are used to navigate through the line, radio or other suitable means of communication shall be set up between the two (2) manholes of the section being inspected to insure good communications between members of the crew.

Manual winches, power winches, TV cable, and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions shall be used to move the camera through the sewer line. If, during the inspection operation the television will not pass through the entire manhole section, the Contractor shall re-set up his equipment in a manner so that the inspection can be performed from the opposite manhole. If, again, the camera fails to pass through the entire manhole section, the inspection shall be considered complete and no additional inspection work will be required, unless specifically requested by the Engineer.

The collected televised inspection record shall be compiled on Recordable Digital Versatile Discs (DVD-R) of professional grade and quality. The media shall be write-once, single layer construction with a capacity of 4.38 gigabytes. The disc media shall be furnished in plastic cases providing protection from dust and handling scratches.

Separate video files shall be provided for each televised sewer segment within the disc directory structure. The disc recordings shall contain both video and audio record of the observed pipe conditions. Upon playback, the disc shall provide a clear distortion free video and audio record for later viewing and analysis.

Each disc shall be clearly labeled, numbered, and indexed for later review. An index card shall be provided with each disc or tape indicating the pipe segments contained on the media. The specific references to the sections of the sewer system shall reflect the manhole/pipe numbering system provided by the Engineer. The recordings shall become the property of the Engineer upon completion.

In addition to the video disc documentation a printed report shall be provided to summarize the observations for each pipe segment. The report shall present the locations and descriptions of the observed conditions and defects, including the following:

1. Service connection locations by station and by clock reference,
2. Service connection type (break-in, factory tees, tap, abandoned)
3. Root infestation generally identified by severity
4. Structural pipe condition, deformation or failure (collapse)
5. Missing pieces of pipe (size and position by clock reference)
6. Pipe crack positions and type (longitudinal, circumferential, multiple)
7. Open joint location and description
8. Offset joint location and severity

Basis of Payment. This work shall be paid for at the contract unit price per foot for TELEVISION INSPECTION OF SEWER.

DUCTILE IRON WATER MAIN

This work shall consist of the furnishing and installation of a ductile iron water main and fittings, with interior diameter, as indicated on plans or as directed by the Engineer. The methods and procedures used to disconnect the existing water main and reconnect to existing water main shall be coordinated with the Village of Coal City Public Works department and shall be approved by the Engineer. Scheduling of the construction of the water main shall be strictly enforced. The work shall be constructed in accordance with the applicable sections of the Section 40 and 41 of the “Standard Specifications for Water and Sewer Main Construction in Illinois”, the latest addition, Section 561 of the Standard Specifications and the details shown in the plans.

A. Water main Pipe

Water pipe shall be of the following material as specified:
Pipe shall be Ductile Iron Pipe, push-on, Class 52 conforming to ANSI A.21.51 (AWWA C-151) latest addition. All pipe and fittings shall have a cement mortar lining conforming to the requirements of ANSI A.21.4 (AWWA C104).

B. Joints

On water main pipe, all joints shall be the push-on type where the sections of the water main pipe are connected by means of slip joist, consisting of bells cast integrally with the pipe, The interior angular recesses of the bell shall conform to the shape and dimensions of a single molded rubber seating gasket, as described in ANSI A.21.11 (AWWA C-111). The interior dimensions of a single molded rubber seating gasket is such that it will admit the insertion of the spigot end if the joining pipe in a manner that will compress the gasket tightly between the bell of the pipe and the inserted spigot, thus securing the gasket and sealing the joint. Slip joints shall be any one of the following make.

1. Super Belltite – As supplied by James B. Clow and Sons
2. Fastite – As supplied by American Cast Iron Pipe and Foundry Co.
3. Tyton – As supplied to U.S. Pipe Foundry Co.

Lubricant used in conjunction with slip joints shall be that recommended by the suppliers specified above or as approved by the Engineer.

C. Polyethylene Encasement

All water main and fittings shall be encased in a high-density cross-laminated polyethylene encasement with its material specification and installation method in accordance with ANSI A21.5/AWWA 105, ASTM A674, and using “Method A” installation.

D. Fittings

All fittings shall be cast iron mechanical joint conforming to AWWA C111/C600 with cement mortar lining as specified in Water Main Pipe and in accordance with ANSI A.21.10. Bolts shall be high strength, low alloy steel “Cor-ten” T-bolt, Village approved.

E. Thrust Blocking

Concrete thrust blocks, as shown on the plans and/or directed by the Engineer, shall be constructed at plugs, tees, and bends of 3000 PSI concrete in accordance with section 41-2.10 of the “Standard Specifications for Water and Sewer Main Construction in Illinois”, latest edition, and Village of Coal City Standards. The concrete thrust blocks shall completely fill the space between the bends or fittings and the walls of the trench from 6 inches below the fittings to 12 inches above the fitting with no possible interference with the making or remaking of the joints. In addition to the concrete thrust blocking all mechanical joints, bends of 22 degrees and larger, and fire hydrants shall be a “Megalug” restraint. Bolts shall be “Cor-ten”. This work shall be included in the cost of the water main.

Construction Requirements

A. Excavation

The installation depth of the water main shall not be less than six feet from the proposed ground elevation to the top of the pipe, except where shown differently at crossings with other utilities or as directed by the Engineer. If the excavation has been made deeper than necessary, or is required deeper for adjustments for fire hydrants, valve vaults, services or for separation from sewer and other utilities, no additional cost shall be charged. The cost shall be included in the cost of the water main. If necessary, bell holes of sufficient depth shall be provided across the bottom of the trench to accommodate the bell of the pipe providing sufficient room for joint making, and to ensure uniform bearing for the pipe. The cost associated with the excavated material removal and disposal, trench/pit and stockpile protection, granular trench backfill shall be considered incidental to this pay item.

B. Sequence of Operations

All valves to be shut down for the purpose of adjusting and/or lowering of water main, or for other shut downs of the water system, shall be done by the Village of Coal City Water Department. A tentative installation schedule of operation shall be submitted to the Village 72 hours before any shut down of the water system can be made. The actual sequence of construction installation shall be discussed and scheduled at a pre-construction meeting with the Contractor, Engineer and Public Works Department.

Protection of Water Mains and Water Service Lines

A. Normal Conditions

Water main shall be laid at least 10 feet horizontally from any sanitary sewer, storm sewer or sewer manholes, whenever possible. The distance shall be measured edge-to-edge.

B. Unusual Conditions

When local conditions prevent a horizontal separation of 10 feet, a water main may be laid closer to a storm or sanitary sewer provided that:

1. The bottom of the water main is at least 18 inches above the top of the sewer.
2. Where this vertical separation cannot be obtained, the sewer shall be constructed of materials and with joints that are equivalent to water main standards of construction for 10 feet, as measured perpendicular, on either side of the water main.

C. Crossings – Water Main, Sewers and Utilities

1. Normal Conditions: Water main crossing storm or sanitary services or sewers shall be laid to provide a separation of at least 18 inches between the bottom of the water main and the top of the sewer.
2. Unusual Conditions: When local conditions prevent a vertical separation as Normal Conditions, the following construction shall be used.

a. Sewers passing over or under water main should be constructed of the materials described for parallel installation where vertical separation cannot be obtained.
b. Water mains passing under sewer shall, in addition, be protected by providing:
    1. A vertical separation of at least 18 inches between the bottom of the sewer and the top of the water main.
    2. Adequate structural support for the sewers to prevent excessive deflection of joints and settling on and breaking the water mains.

3. Installation and Backfilling

The work shall be constructed in conformance with the applicable sections of the "Standard Specifications", latest edition; "Standard Specifications for Water and Sewer Main Construction in Illinois" – Section 41; Village of Coal City standards and specifications.

All pipe and fittings must be cleaned and swabbed with a chlorine solution of at least 50 mg/L. The Engineer must test this solution.

Basis of Payment. This work shall be paid for at the Contract Unit price per foot for DUCTILE IRON WATER MAIN, of the diameter specified. Trench Backfill will be paid for separately.

CONDUIT SPLICE

Description: This item shall consist of splicing two high density polyethylene (HDPE) unit duct type conduits together at the location shown on the drawings.

Requirements: The splice shall be waterproof made with a clamp on type coupler made from HDPE with corrosion resistant stainless steel band clamps and locking rings. The coupler shall be UL listed for underground HDPE conduit connections in wet locations. Prior to splicing, the ends of the conduits shall be beveled per the Manufacturers installation requirements.

The contractor shall record location of the conduit splice and include on the Record Drawings.

Measurement and Basis of Payment: This item will be measured for payment for each conduit splice performed. This work shall be paid for at the contract unit price each for CONDUIT SPLICE, which price shall include all labor, materials and equipment to complete the work as specified herein.

EXPLORATION EXCAVATION (UTILITY)

Description: This item shall consist of locating an existing underground utility that is in close proximity of a proposed light pole foundation, manhole, catch basin, storm sewer, etc., using the hydro excavating method.

Requirements: Where directed by the engineer, the contractor shall locate the outer edge of the utility using a hydro excavation method. The contractor shall use a 6" suction line for the removal of excavated material. The contractor shall be responsible for disposing of the excavated material. Contractor shall be responsible for replacing excavated soil in hole if excavation is outside the limits of the light pole foundation, manhole, etc.

Any existing utilities damaged during excavation operations shall be repaired or replaced at the contractor's expense, no additional compensation shall be allowed.

Method of Measurement: This work will be measured per vertical foot excavated, regardless of the soil composition, depth or diameter of hole that is required to verify existing utility location.

Basis of Payment: This work shall be paid for at the contract unit price per foot for EXPLORATION EXCAVATION (UTILITY).

HANDHOLE, COMPOSITE CONCRETE (SPECIAL)

Description. This work shall consist of furnishing and installing a 13"x24"x24" deep composite concrete handhole as shown on the plans or directed by the Engineer. All work related to the installation of the handhole shall be included (excavation, installation of handhole and cover, gravel french drain, backfill, disposal of surplus excavate material, etc.)

Materials. All materials shall be in accordance with the contract plan drawings and requirements.

Construction Requirements. The handhole shall be precast constructed of polymer concrete. The box and lid shall meet or exceed ANSI Tier 15 loading requirements and also be tested in accordance with the latest edition of NASI/SCTE 77. The box shall be placed on 12" of crushed stone for drainage. The lid shall have a logo as shown on plans. All work shall be installed as shown on the contract plan drawings and in accordance with Sections 814 of the Standard Specifications.

The Contractor shall be responsible for coordinating all work.

Measurement and Payment. The work shall be paid for at the contract unit price each for HANDHOLE, COMPOSITE CONCRETE (SPECIAL), which price shall be payment in full for all material, labor and any other items required to complete the work.

HANDHOLE, SPECIAL

Description. This work shall consist of furnishing and installing a 11”x17”x18” deep composite concrete handhole as shown on the plans or directed by the Engineer. All work related to the installation of the handhole shall be included (excavation, installation of handhole and cover, gravel french drain, backfill, disposal of surplus excavate material, etc.)

Materials. All materials shall be in accordance with the contract plan drawings and requirements.

Construction Requirements. The handhole shall be precast constructed of polymer concrete. The box and lid shall meet or exceed ANSI Tier 15 loading requirements and also be tested in accordance with the latest edition of NASI/SCTE 77. The box shall be placed on 12” of crushed stone for drainage. The lid shall have a logo as shown on plans. All work shall be installed as shown on the contract plan drawings and in accordance with Sections 814 of the Standard Specifications.

The Contractor shall be responsible for coordinating all work.

Measurement and Payment. The work shall be paid for at the contract unit price each for HANDHOLE, SPECIAL, which price shall be payment in full for all material, labor and any other items required to complete the work.

HEAVY-DUTY HANDHOLE (SPECIAL)

Description. This work shall consist of furnishing and installing a 24”x24”x24” deep composite concrete handhole as shown on the plans or directed by the Engineer. All work related to the installation of the handhole shall be included (excavation, installation of handhole and cover, gravel french drain, backfill, disposal of surplus excavate material, etc.)

Materials. All materials shall be in accordance with the contract plan drawings and requirements.

Construction Requirements. The handhole shall be precast constructed of polymer concrete. The box and lid shall meet or exceed ANSI Tier 15 loading requirements and also be tested in accordance with the latest edition of NASI/SCTE 77. The box shall be placed on 12” of crushed stone for drainage. The lid shall have a logo as shown on plans. All work shall be installed as shown on the contract plan drawings and in accordance with Sections 814 of the Standard Specifications.

The Contractor shall be responsible for coordinating all work.

Measurement and Payment. The work shall be paid for at the contract unit price each for HEAVY-DUTY HANDHOLE (SPECIAL)which price shall be payment in full for all material, labor and any other items required to complete the work.

LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET

Description. This work shall consist of constructing and installing a 24 inch diameter offset concrete light pole foundation where shown on the contract drawings.

Materials and Construction Requirements. The concrete foundation shall be constructed and installed per the details in the Contract Drawings, and in conformance with Section 836 of the Standard Specifications. Where soil conditions require support to prevent caving in of the shaft sidewall, the contractor shall be responsible for furnishing and installing a full depth form liner at no additional cost.

Measurement and Payment. Concrete foundations shall be measured for payment in feet, along the vertical and horizontal centerlines of the foundation without overlap.

This work shall be paid for at the contract unit price per foot for LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET, which price shall be payment in full for all material, labor and any other items required to complete the work.

LIGHTING STANDARD, TYPE 4A

Description. This item shall consist of furnishing and installing a new 35 foot decorative light pole with a single decorative arm (complete including pole, decorative base, mast arm, banner arms, flag holder, receptacle, and all hardware/accessories) on a concrete foundation as shown on the contract drawings.

Materials. The light pole complete shall be in accordance with the contract plan drawings. The structural design of the light pole shall be in accordance Sections 1069.01 of the Standard Specifications.

Construction Requirements. All work shall be installed in accordance with Sections 830 of the Standard Specifications, contract plan drawings, NEC, and local ordinances

Measurement and Payment. The work shall be paid for at the contract unit price each for LIGHTING STANDARD, TYPE 4A, which price shall be payment in full for all material, labor and any other items required to complete the work.

The decorative luminaire will be paid for separately.

LIGHTING STANDARD, TYPE 4B

Description. This item shall consist of furnishing and installing a new 35 foot decorative light pole with twin decorative arms at 90 degrees (complete including pole, decorative base, mast

arms, banner arms, flag holder, receptacle, and all hardware/accessories) on a concrete foundation as shown on the contract drawings.

Materials. The light pole complete shall be in accordance with the contract plan drawings. The structural design of the light pole shall be in accordance with Sections 1069.01 of the Standard Specifications.

Construction Requirements. All work shall be installed in accordance with Sections 830 of the Standard Specifications, contract plan drawings, NEC, and local ordinances

Measurement and Payment. The work shall be paid for at the contract unit price each for LIGHTING STANDARD, TYPE 4B, which price shall be payment in full for all material, labor and any other items required to complete the work.

The decorative luminaires will be paid for separately.

LUMINAIRE, LED, SPECIAL

Description.

This work shall consist of furnishing and installing a decorative LED luminaire as shown on the plans, as specified herein. All luminaires shall be from the same manufacturer and within the same model family. This work shall also include pole wiring and fusing.

General.

The luminaire including the housing, driver and optical assembly shall be assembled in the U.S.A. The luminaire shall be assembled by and manufactured by the same manufacturer. The luminaire shall be in compliance with ANSI C136.37. LED light source(s) and driver(s) shall be RoHS compliant. The luminaire assembly shall be UL listed.

Submittal Requirements.

The Contractor shall submit, for approval, an electronic version of all associated luminaire IES files, AGi32 files and the TM-21 or TM-28 calculator spreadsheet with inputs and reports associated with the project luminaires. The Contractor shall also provide (as a minimum) an electronic (PDF) version of each of the following manufacturer's product data for each type of luminaire:

1. Descriptive literature and catalogue cuts for luminaire, LED driver, and surge protection device.

2. LED drive current, total luminaire input wattage and total luminaire current at the system operating voltage or voltage range and ambient temperature of 25 C.

3. LED efficacy per luminaire expressed in lumens per watt (lpw).

4. Initial delivered lumens at the specified color temperature, drive current, and ambient temperature.

5. Computer photometric calculation reports as specified and in the luminaire performance table.

6. TM-15 BUG rating report.

7. lsofootcandle chart with max candela point and half candela trace indicated.

8. Documentation of manufacturers experience and verification that luminaires were assembled in the U.S.A. as specified.

9. Supporting documentation of compliance with ANSI standards as well as UL listing as specified.

10. Supporting documentation of laboratory accreditations and certifications for specified testing as indicated.

11. Thermal testing documents as specified.

12. IESNA LM-79, LM-80 (or LM-84) and TM-21 (or TM-28) reports as specified.

13. Salt fog test reports and certification as specified.

14. Vibration Characteristics Test Reports and certification as specified.

15. Ingress Protection Test Reports as specified.

16. Written warranty.

A sample luminaire shall be provided upon request of the Engineer.

Manufacturer Experience.

Manufacturer Experience. The luminaire shall be designed to be incorporated into a lighting system with an expected 30-year lifetime. The luminaire Manufacturer shall have a minimum of 30 years' experience manufacturing High Intensity Discharge (HID) roadway luminaires and shall have a minimum of 5 years' experience manufacturing LED roadway luminaires. The Manufacturer shall have a minimum of 5,000 total LED roadway luminaires installed on a minimum of 30 separate installations, all within the continental U.S.A.

Housing.

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

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

The luminaire color shall be as shown on the plans.

The luminaire shall slip-fit on a mounting arm with a 2" diameter tenon (2.375" outer diameter), and shall have a barrier to limit the amount of insertion. The slip fitter clamp shall utilize four (4) bolts to clamp to the tenon arm. The luminaire shall be provided with a leveling surface and shall be capable of being tilted ±5 degrees from the axis of attachment in 2.5 degree increments and rotated to any degree with respect to the supporting arm.

The housing shall be designed to prevent the accumulation of water, ice, dirt and debris and to ensure maximum heat dissipation.

The effective projected area of the luminaire shall not exceed 2.6 sq. ft.

The total weight of the luminaire(s) and accessories shall not exceed 75 pounds.

A passive cooling method with no moving, rotating parts, or liquids shall be employed for heat management.

The luminaire shall include a fully prewired, 7-pin twist lock ANSI C136.41-compliant receptacle. Unused pins shall be connected as directed by the Manufacturer and as approved by the Engineer. A shorting cap shall be provided with the luminaire.

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

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

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

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

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

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

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

Wiring. Wiring within the electrical enclosure shall be rated at 600v, 105°C or higher.

Driver.

The driver shall be integral to the luminaire. Integral driver components shall be mounted in the rear of the luminaire on the inside of a removable door or on a removable mounting pad. Driver wiring shall be connected by means of plugs. Upon unplugging the driver wiring the entire driver assembly shall remove for maintenance. The removable door or pad shall be secure when fastened in place and all individual components shall be secured upon the removable element. Each component shall be readily removable from the removable door or pad for replacement.

The plugs shall be keyed and shall be operable without the use of special tools by insulated, gloved hands

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

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

Input Voltage. The driver shall be suitable for operation over a range of 120 to 277 volts or 347 to 480 volts as required by the system operating voltage.

Operating Temperature. The driver shall have an operating ambient temperature range of -40ºC to 70ºC.

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

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

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

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

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

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

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

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

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

Thermal performance

Thermal Testing shall be provided as defined by ANSI/UL 1598. The luminaire shall start and operate in the ambient temperature range specified in the driver section. The maximum rated case temperature of the driver, LEDs, and other internal components shall not be exceeded when the luminaire is operated in the ambient temperature range specified.

Mechanical design of protruding external surfaces (heat sink fins) shall facilitate hose-down cleaning and discourage debris accumulation. Testing shall be submitted (whenever is available) to show the maximum rated case temperature of the driver, LEDs, and other internal components are not exceeded when the luminaire is operated with the heat sink filled with debris.

LED Optical Assembly

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

The optical assembly shall utilize high brightness, long life, minimum 70 CRI, 4,000K color temperature (+/-300K) LEDs binned in accordance with ANSI C78.377. Lenses shall be UV-stabilized acrylic or glass.

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

The luminaire may have an acrylic or glass lens.

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

Photometric Performance.

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

Data reports as a minimum shall yield an isofootcandle chart, with max candela point and half candela trace indicated, maximum plane and maximum cone plots of candela, a candlepower

table (house and street side), a coefficient of utilization chart, a luminous flux distribution table, spectral distribution plots, chromaticity plots, and other standard report outputs of the above mentioned tests.

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

The luminaire shall have a BUG rating of Back Light B3 or less, Up Light rating of U0, and a Glare rating of G3 or less unless otherwise indicated in the luminaire performance table.

Lumen Maintenance Projection.

The luminaire shall have long term lumen maintenance documented according to IESNA TM-21 or IESNA TM-28. Ambient temperature shall be 25º C.

The submitted calculations shall incorporate the light loss factors as indicated the respective performance tables.

Photometric Calculations.

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

Complete point-by-point luminance and veiling luminance calculations as well as listings of all indicated averages and ratios as applicable shall be provided in accordance with IESNA RP-8 recommendations. Lighting calculations shall be performed using AGi32 software with all luminance calculations performed to two decimal places (i.e. x.xx cd/m2). Uniformity ratios shall also be calculated to two decimal places (i.e. x.xx:1). Calculation results shall demonstrate that the submitted luminaire meets the lighting metrics specified in the project Luminaire Performance Table(s). Values shall be rounded to the number of significant digits indicated in the luminaire performance table(s).

All photometry must be **photopic**. Scotopic or mesopic factors will not be allowed.

IDOT LUMINAIRE PERFORMANCE TABLE
ROADWAY LIGHTING for HIGH WATTAGE LUMINAIRE

Given Conditions

Roadway Data	Pavement Width	32	(ft)
	Number of Lanes	2	
	Median Width	12	(ft)
	I.E.S. Surface Classification	R3	
	Q-Zero Value	.07	
Light Pole Data	Mounting Height	35.0	(ft)
	Mast Arm Length	4.0	(ft)
	Pole Set-Back From Edge Of Pavement	17.0	(ft)
Luminaire Data	Lumens	13,000-23,000	
	I.E.S. Vertical Distribution	Medium	
	I.E.S. Lateral Distribution	Type II or III	
	Total Light Loss Factor	0.684	
Layout Data	Spacing	170	(ft)
	Configuration	Opposite	
	Luminaire Overhang over EOP	-13.0	(ft)

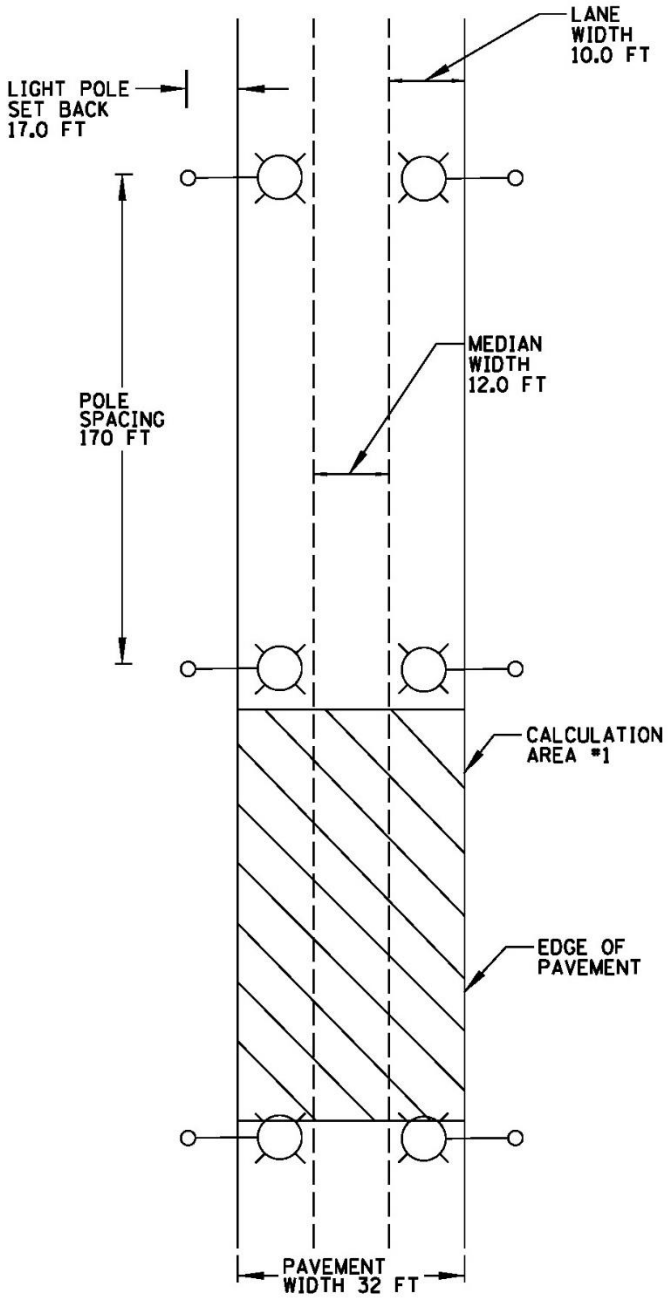
NOTE: Variations from the above specified I.E.S. distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

Performance Requirements

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

Roadway	Average Luminance, $\mathbf{L_{AVE}}$	0.6	Cd/m^2 (Max)
Luminance		0.9	Cd/m^2 (Min)
	Uniformity Ratio, $\mathbf{L_{AVE}/L_{MIN}}$	3.5	(Max)
	Uniformity Ratio, $\mathbf{L_{MAX}/L_{MIN}}$	6.0	(Max)
	Veiling Luminance Ratio, $\mathbf{L_V/L_{AVE}}$	0.4	(Max)

LUMINAIRE PERFORMANCE DIAGRAM FOR 32 FT CROSS SECTION



Independent Testing

When a contract has 30 or more luminaires of the same type (distribution type and lumen output/wattage), that luminaire type shall be independently tested, unless otherwise noted. The quantity of luminaires to be tested shall be as specified in the following table.

Contract Quantity	**Luminaires to be Tested**
1-29	0 (unless otherwise noted)
30-80	2
81-130	3
131-180	4
181-230	5
231-280	6
281-330	7

The Contractor shall coordinate the testing with the contract schedule taking into account submittal, manufacturing, testing, and installation lead-times and deadlines.

The Electrical Engineer shall select from all the project luminaires at the Contractor's or distributor's local storage facility the luminaires for testing. In all cases, the selection of luminaires shall be a random selection from the entire completed lot of luminaires required for the contract. Selections from partial lots will not be allowed. An additional luminaire shall also be selected for physical inspection by the Engineer at the District Headquarters. This luminaire will be available for the Contractor to pick up at a later date to be installed under this contract. This luminaire is in addition to the luminaire required as a part of the submittal process specified elsewhere.

Luminaires shall be tested at a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory approved for each of the required tests. All costs associated with luminaire testing shall be included in the bid price of the luminaire.

The selection of the proposed independent laboratory shall be presented with the information submitted for approval.

The testing performed shall include photometric and electrical testing.

Photometric testing shall be according to IES recommendations and as a minimum, shall yield an isofootcandle chart, with max candela point and half candela trace indicated, an isocandela diagram, maximum planned and maximum cone plots of candela, a candlepower table (House and street side), a coefficient of utilization chart, a luminous flux distribution table, BUG rating report, and complete calculations based on specified requirements and test results.

Electrical testing shall conform to NEMA and ANSI standards and, as a minimum shall include a complete check of wiring connections and a table of characteristics showing input amperes, watts, power factor, total harmonic distortion and LED drive current.

Two copies of the summary report and the test results (including CDROM) shall be certified by the test laboratory and shall be sent by certified mail directly to the Engineer.

The package shall state “luminaire test reports” and the contract number clearly.

A copy of this material shall be sent to the Contractor and the Resident Engineer at the same time.

Photometric performance shall meet or exceed that of the specified values. If the luminaire does not meet the specified photometric values, the luminaire has failed regardless of whether the test results meet the submitted factory data.

Should any of the tested luminaires of a given type, and distribution fail to satisfy the specifications and perform according to approved submittal information, the luminaire type of that distribution type and wattage shall be unacceptable and be replaced by alternate equipment meeting the specifications with the submittal and testing process repeated in their entirety; or corrections made to achieve required performance.

In the case of corrections, the Contractor shall advise the Engineer of the proposed corrections and shall request a repeat of the specified testing and, if the corrections are deemed reasonable by the Engineer, the testing process shall be repeated in its entirety.

The number of luminaires to be tested shall be the same quantity as originally tested as required in the above table.

Retesting, should it become necessary, shall not be grounds for additional compensation or extension of time

Submittal information shall include a statement of intent to provide the testing as well as a request for approval of the chosen laboratory.

Installation.

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

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

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

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

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

Included with the pole wiring shall be fusing located in the handhole. Fusing shall be according to Article 1065.01 with the exception that fuses shall be 6 ampere.

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

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

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

Warranty.

The entire luminaire and all of its component parts shall be covered by a 10 year warranty. Failure is when one or more of the following occur:

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

The warranty period shall begin on the date of project final acceptance. A copy of the acceptance letter shall be sent to the luminaire manufacturer and luminaire manufacturer's representative by the Contractor upon final acceptance.

The replacement luminaire shall be of the same manufacturer, model, and photometric distribution as the original.

Method of Measurement.

LED Luminaire classification shall be as follows:

Type	**Location Where Used**	**Min Lumens**	**Max Lumens**
Decorative	Single and Double Arm Poles	13,000	23,000

Where delivered lumens is defined as the initial delivered lumens at the specified color temperature.

Note: Luminaires above the stated maximums for the specified type will not be accepted

Basis of Payment.

This work shall be paid for at the contract unit price each for LUMINAIRE, LED, SPECIAL, which price shall be payment in full for all material, labor and any other items required to complete the work.

MAINTENANCE OF LIGHTING SYSTEM

Replace Article 801.11 and 801.12 of the Standard Specifications with the following:

Effective the date the Contractor's activities (electrical or otherwise) at the job site begin, the Contractor shall be responsible for the proper operation and maintenance of all existing and proposed lighting systems which are part of, or which may be affected by the work until final acceptance or as otherwise determined by the Engineer.

Before performing any excavation, removal, or installation work (electrical or otherwise) at the site, the Contractor shall initiate a request for a maintenance transfer and preconstruction inspection, as specified elsewhere herein, to be held in the presence of the Engineer and a representative of the party or parties responsible for maintenance of any lighting systems which may be affected by the work. The request for the maintenance preconstruction inspection shall be made no less than seven (7) calendar days prior to the desired inspection date.

Existing lighting systems, when depicted on the plans, are intended only to indicate the general equipment installation of the systems involved and shall not be construed as an exact representation of the field conditions. It remains the Contractor's responsibility to visit the site to confirm and ascertain the exact condition of the electrical equipment and systems to be maintained.

Maintenance of Existing Lighting Systems

Existing lighting systems. Existing lighting systems shall be defined as any lighting system or part of a lighting system in service at the time of contract Letting. The contract drawings indicate the general extent of any existing lighting, but whether indicated or not, it remains the Contractor's responsibility to ascertain the extent of effort required for compliance with these specifications and failure to do so will not be justification for extra payment or reduced responsibilities.

Existing Lighting Systems Requiring Maintenance.

Village of Coal City Broadway Ave Lighting– Full Maintenance:
- Lighting Controller in pump house building on east side of Broadway north of the BNSF railroad.
- 20 roadway light poles along Broadway Ave from railroad to Division Street.

Village of Coal City Broadway Ave Lighting– Full Maintenance:
- Lighting Controller along east side of Broadway Street just south of the BNSF railroad.
- 8 roadway light poles along Broadway Street from Elm Street to railroad.

Village of Coal City Campbell Memorial Park Lighting– Full Maintenance:
- Lighting Controller in park building on west side of Broadway north of the BNSF railroad.
- 7 post top light poles in/around park.

Extent of Maintenance.

Partial Maintenance. Unless otherwise ‘indicated, if the number of circuits affected by the contract is equal to or less than 40% of the total number of circuits in a given controller and the controller is not part of the contract work, the Contractor needs only to maintain the affected circuits. The affected circuits shall be isolated by means of in-line waterproof fuse holders as specified elsewhere and as approved by the Engineer.

Full Maintenance. If the number of circuits affected by the contract is greater than 40% of the total number of circuits in a given controller, or if the controller is modified in any way under the contract work, the Contractor shall maintain the entire controller and all associated circuits.

Maintenance of Proposed Lighting Systems

Proposed Lighting Systems. Proposed lighting systems shall be defined as any lighting system or part of a lighting system, temporary or permanent, which is to be constructed under this contract.

The Contractor shall be fully responsible for maintenance of all items installed under this contract. Maintenance shall include, but not be limited to, any equipment failures or malfunctions as well as equipment damage either by the motoring public, Contractor operations, vandalism, or other means. The potential cost of replacing or repairing any

malfunctioning, damaged, or vandalized equipment shall be included in the bid price of this item and will not be paid for separately.

Lighting System Maintenance Operations

The Contractor's responsibility shall include all applicable responsibilities of the Electrical Maintenance Contract, State of Illinois, Department of Transportation, Division of Highways, District One. These responsibilities shall include the maintenance of lighting units (including sign lighting), cable runs and lighting controls. In the case of a pole knockdown or sign light damage, the Contractor shall promptly clear the lighting unit and circuit discontinuity and restore the system to service. The equipment shall then be re-set by the contractor within the time limits specified herein.

If the equipment damaged by normal vehicular traffic, not contractor operations, is beyond repair and cannot be re-set, the contractor shall replace the equipment in kind with payment made for such equipment under Article 109.04. If the equipment damaged by any construction operations, not normal vehicular traffic, is beyond repair and cannot be re-set, the contractor shall replace the equipment in kind and the cost of the equipment shall be included in the cost of this pay item and shall not be paid for separately.

Responsibilities shall also include weekly night-time patrol of the lighting system, with patrol reports filed immediately with the Engineer and with deficiencies corrected within 24 hours of the patrol. Patrol reports shall be presented on standard forms as designated by the Engineer. Uncorrected deficiencies may be designated by the Engineer as necessitating emergency repairs as described elsewhere herein.

The following chart lists the maximum response, service restoration, and permanent repair time the Contractor will be allowed to perform corrective action on specific lighting system equipment.

INCIDENT OR PROBLEM	**SERVICE RESPONSE TIME**	**SERVICE RESTORATION TIME**	**PERMANENT REPAIR TIME**
Control cabinet out	1 hour	4 hours	7 Calendar days
Hanging mast arm	1 hour to clear	na	7 Calendar days
Radio problem	1 hour	4 hours	7 Calendar days
Motorist caused damage or leaning light pole 10 degrees or more	1 hour to clear	4 hours	7 Calendar days
Circuit out – Needs to reset breaker	1 hour	4 hours	na

Circuit out – Cable trouble	1 hour	24 hours	21 Calendar days
Outage of 3 or more successive lights	1 hour	4 hours	na
Outage of 75% of lights on one tower	1 hour	4 hours	na
Outage of light nearest RR crossing approach, Islands and gores	1 hour	4 hours	na
Outage (single or multiple) found on night outage survey or reported to EMC	na	na	7 Calendar days
Navigation light outage	na	na	24 hours

- **Service Response Time** -- amount of time from the initial notification to the Contractor until a patrolman physically arrives at the location.

- **Service Restoration Time** – amount of time from the initial notification to the Contractor until the time the system is fully operational again (In cases of motorist caused damage the undamaged portions of the system are operational.)

- **Permanent Repair Time** – amount of time from initial notification to the Contractor until the time permanent repairs are made if the Contractor was required to make temporary repairs to meet the service restoration requirement.

Failure to provide this service will result in liquidated damages of $500 per day per occurrence. In addition, the Department reserves the right to assign any work not completed within this timeframe to the Electrical Maintenance Contractor. All costs associated to repair this uncompleted work shall be the responsibility of the Contractor. Failure to pay these costs to the Electrical Maintenance Contractor within one month after the incident will result in additional liquidated damages of $500 per month per occurrence. Unpaid bills will be deducted from any monies owed to the Contractor. Repeated failures and/or a gross failure of maintenance shall result in the State's Electrical Maintenance Contractor being directed to correct all deficiencies and the resulting costs deducted from any monies owed the contractor.

Damage caused by the Contractor's operations shall be repaired at no additional cost to the Contract.

Operation of Lighting

The lighting shall be operational every night, dusk to dawn. Duplicate lighting systems (such as temporary lighting and proposed new lighting) shall not be operated simultaneously. Lighting systems shall not be kept in operation during long daytime periods.

Method of Measurement

The contractor shall demonstrate to the satisfaction of the Engineer that the lighting system is fully operational prior to submitting a pay request. Failure to do so will be grounds for denying the pay request. Months in which the lighting systems are not maintained and not operational will not be paid for. Payment shall not be made retroactively for months in which lighting systems were not operational.

Basis of Payment

Maintenance of lighting systems shall be paid for at the contract unit price per calendar month for **MAINTENANCE OF LIGHTING SYSTEM**, which shall include all work as described herein.

MODIFY EXISTING LIGHTING CONTROLLER

Description. This item shall consist of modifying existing lighting controls and related equipment to accommodate the proposed lighting system.

Work to be included in this item:

1. Remove & replace two existing panelboards inside building.
2. Install two new Hand-Off-Auto control switches/boxes inside building.
3. Install new timeclock for turning off festoon receptacles after hours.
4. Install new circuit breaker for controls (contactor/photocell/timeclock).
5. Remove & replace existing interior conduit/ power wire.
6. Remove & replace existing interior control conduit/wire.
7. Remove & replace four existing rigid galvanized steel conduit stubs from grade up to existing exterior wall mounted junction box.
8. Install four additional rigid galvanized steel conduit stubs from grade up to existing exterior wall mounted junction box.
9. Prime & Paint existing exterior junction box.
10. Disposal of all removed equipment.

Materials. The contractor shall furnish and install materials in accordance with the contract plan drawings. The above grade exterior conduits shall be rigid galvanized steel (RGS). Interior conduits shall be Electrical Metallic Tubing (EMT). Wiring shall be XLP-Type USE. All interior wiring shall be installed in THWN installed in conduit, exposed wiring will be allowed. All electrical equipment shall be UL listed.

Construction Requirements. Contractor shall coordinate all work with the Engineer and ensure power out to street lights remains operational every night from dusk to dawn. All work shall be in conformance with the contract plan drawings, N.E.C. and local ordinances.

Measurement and Payment. This item will be measured for payment for each lighting controller that is modified.

The work shall be paid for at the contract unit price each for MODIFY EXISTING LIGHTING CONTROLLER, which price shall be payment in full for all material, labor and any other items required to complete the work.

PAINT EXISTING POLE COMPLETE

PART 1 GENERAL

1.1 SECTION INCLUDES

A. This work shall consist of field prepping, priming and painting an existing post top type light pole at the location shown on the plans. This work also includes removing any foreign matter.

B. 15-year color, gloss retention and adhesion warranty required, see WARRANTY section herein.

1.2 REFERENCES

A. ASTM D16 – Definitions of Terms Relating to Paint, Varnish, Lacquer and Related Products.

B. NACE (NACE International) – Industrial Maintenance Painting.

C. SSPC (SSPC: The Society for Protective Coatings) SSPC Painting Manual Volumes 1 and 2.

1.3 DEFINITIONS

A. Conform to ASTM D16 for interpretation of terms used in this Section.

1.4 SUBMITTALS

A. Provide the following to the Engineer:

1. Product Data: Provide data on all products. Data shall include manufacturer's suggested surface preparation and coating thicknesses.
2. Manufacturer's Instructions: Indicate special surface preparation procedures, substrate conditions requiring special attention, environmental considerations and any restrictions regarding recoat time.

1.5 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing the Products specified in this section.

B. Applicator: Company specializing in performing the work of this section with minimum three years, approved by manufacturer.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver, store, protect and handle products in accordance with Manufacturer's recommendations.

B. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.

C. Container label to include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

D. Only materials approved for use on this project shall be delivered to the site.

E. Store paint materials at minimum ambient temperature of 45 degrees F (7 degrees C) and a maximum of 90 degrees F (32 degrees C), in ventilated area, and as required by manufacturer's instructions.

1. Any material found on the project that is stored in areas that are outside of the above temperature requirements shall not be used on the project and shall immediately be removed from the site.

1.7 ENVIRONMENTAL REQUIREMENTS

A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the coating product manufacturer.

B. Do not apply exterior coatings during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.

C. Minimum Application Temperatures for Paints:

1. Minimum application temperatures shall be as required by the coating manufacturer's instructions.
2. If there are no explicit printed recommendations by the manufacturer, minimum temperature of the air and surface to be painted shall be 50° Fahrenheit.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. All products used on this project shall be from the same manufacturer unless

written authorization is received from the Engineer.

2.2 MATERIALS

A. Coatings:

1. Ready mixed, except field catalyzed coatings.
2. Process pigments to a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating; good flow and brushing properties; capable of drying or curing free of streaks or sags.

B. Accessory Materials:

1. As recommended by the manufacturer and required to achieve the finishes specified, of commercial quality.

2.3 FINISHES

A. Contractor shall coordinate and verify color with owner.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that surfaces and/or substrate conditions are ready to receive work as instructed by the product manufacturer.

B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.

C. Commencement of the coating operations will signify acceptance of the substrate9s) as being suitable for the coating and ability to achieve the final results specified.

3.2 PREPARATION

A. Due to warranty requirements specified, Painting Contractor shall have local paint manufacturer’s representative visit the site and observe surface preparation of areas to be painted to assure proper methods for actual field conditions are used. Not every pole/mast arm preparation sequence needs to be observed but at least one of each type of pole/mast arm installation found on the project shall be reviewed by the paint manufacturer’s representative.

B. Remove electrical cover plates, transformer, transformer wiring/conduit, hardware, light fixture trim, escutcheons, and fittings. Remove pole number labels, sticker, tape, etc. prior to primer coat application.

C. Clean surfaces which affect work of this section.

1. Remove existing coatings that exhibit loose surface debris.
2. Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach.
3. Rinse with clean water and allow surface to dry.

D. Marks:

1. Seal with a stain-blocking primer any surface marks that cannot be removed which may bleed through surface finishes.

3.3 APPLICATION

A. Apply products in accordance with manufacturer's instructions.

B. Do not apply finishes to surfaces that are not dry.

C. Apply each coat to uniform finish.

D. Apply each coat of paint slightly darker than preceding coat unless otherwise approved.

E. Vacuum clean surfaces free of loose particles and/or use tack cloth just prior to applying next coat.

F. Allow applied coat to dry before next coat is applied.

3.4 FIELD QUALITY CONTROL

A. Field inspections and testing of new painted surfaces will be performed on random pole/mast arm installations by the Engineer.

B. Areas will be tested at random with dry film thickness gage.

1. Any areas not meeting the minimum dry film thickness shown or on approved Shop Drawing submittals shall have additional coats applied so the minimum dry film thickness is achieved.
2. Each coat shall achieve the minimum dry film thickness specified, without regards to the overall system thickness.

3.5 CLEANING

A. Collect waste material containers and remove daily from site.

B. Make good all damage done to grade, sidewalks and/or streets and other work

through neglect or carelessness or from failure to properly protect work from damage resulting from the execution of this work.

3.6 WARRANTY

A. Paint manufacturer shall warrant, in writing to the Village, that paint system will retain the same adherence, color and gloss level for 15 years, as was present on the day the coatings were applied and cured.

3.7 PAINTING – SYSTEMS

	Min. No. of Coats per Coating Layer	Min. Total Thickness of Coating Layer Dry	Type
Primer	1	4.0	Polyamide Epoxy
Finish	1	2.5	High Solids Fluoropolymer

Total Thickness of System – 6.5 Dry Mils Min.

Contractor shall note curing times required between coats, per actual product used.

PART 4 MEASUREMENT AND PAYMENT

This work will be measured for each pole prepped, primed and painted.

This work shall be paid for at the contract unit price each for PAINT EXISTING POLE COMPLETE, which shall include all labor, materials and equipment to complete the work specified herein.

REMOVE EXISTING CABLE

Description: This work shall consist of removing existing electric cables from conduit at the locations shown on the plans and disposing of them. All electric cables shall be disconnected from their source and removed all together from the conduit.

Construction Requirements: The Contractor shall be responsible for verifying the upstream source of power, and downstream electrical equipment connected prior to disconnecting.

If cables cannot be removed from the conduit, the Contractor shall inform the engineer.

After cables have been removed, a flexible steel wire mandrel (sized to match conduit) shall be used to clean and swab conduit prior to the installation of new cable. The installation of new cable will be paid for separately.

Work to be performed under this pay item is indicated in contract plan drawings and shall be in conformance with NEC, IDOT and local ordinances.

Measurement and Payment: This item will be measured for payment for per lineal foot of conduit that cables are removed from (not by the number or total length of cables removed).

The work shall be paid for at the contract unit price per foot for REMOVE EXISTING CABLE, which price shall be payment in full for all material, labor and any other items required to complete the work.

REMOVE EXISTING HANDHOLE

Description. This work shall consist of removing and disposing of a concrete handhole or composite concrete handhole as shown on the plans or directed by the Engineer.

Construction Requirements. All work shall be performed in accordance with Section 895 of the Standard Specifications.

The entire handhole structure and cover shall be completely removed and disposed of. The void area shall be backfilled with approved material, and the surface reconstructed to match the adjoining area. If the handhole is located in the sidewalk area, the entire sidewalk square or squares where the handhole is located shall be replaced with new sidewalk. Sidewalk removal and replacement will be paid for separately.

Measurement and Payment. The work shall be paid for at the contract unit price each for REMOVE EXISTING HANDHOLE, which shall be payment in full for all work listed herein and as directed by the Owner's Representative.

Estimated Quantities for Undercutting and Aggregate Subgrade Improvement Replacement Fill

Boring No.	Station Limits		Existing Grade	Depth to Subgrade (ft)	Estimated Undercut	Soil Conditions at Subgrade Level
	From	To				
1	15+00	18+50	571.5	1.8	NR	Loose Sandy Loam, moist A-2-4 N = 9, WC = 17%
2	18+50	21+50	570.5	1.8	NR	Medium Dense Sand, moist to wet A-1-b, N = 10
3	21+50	24+50	570.0	1.8	6 inches	Loose Sandy Loam, moist A-4 N = 5, WC = 20%
4	24+50	27+50	569.0	1.8	NR	Loose Sand, moist A-1-b N = 6
5	27+50	30+50	568.0	1.8	NR	Loose Sandy Loam, moist A-4 N = 8 WC = 24%
6	30+50	33+50	568.0	1.8	NR	Loose to medium dense Sandy Loam, moist A-2-4, N = 10
7	33+50	36+50	567.5	1.8	NR	Loose Sandy Loam, very moist A-4 N = 8, WC = 13%
8	36+50	39+50	567.5	1.8	NR	Loose Sandy Loam, moist A-2-4 N = 7, WC = 9%
9	39+50	42+50	568.0	1.8	NR	Loose Sandy Loam, damp A-4 N = 9, WC = 15%
10	42+50	45+50	570.5	1.8	NR	Loose Sandy Loam, moist A-4 N = 8, WC = 12%
11	45+50	48+50	566.5	1.8	6 inches	Loose Sandy Loam, very moist A-4 N = 5, WC = 28%
12	48+50	51+50	565.0	1.8	NR	Loose Sandy Loam, moist A-4 N = 8, WC = 9%
13	51+50	54+50	565.0	1.8	6 inches	Loose Sandy Loam, very moist A-4 Qp = 4 WC = 24%
14	54+50	57+50	566.0	1.8	6 inches	Loose Sandy Loam, moist A-2-4 N = 5, WC = 14%
15	57+50	60+50	566.0	1.8	6 inches	Very Loose Sandy Loam, moist A-4, N = 3, WC = 18%
16	60+50	63+50	565.5	1.8	NR	Loose Sandy Loam, moist A-2-4, N = 9, WC = 12%

Boring No.	Station Limits		Existing Grade	Depth to Subgrade (ft)	Estimated Undercut	Soil Conditions at Subgrade Level
	From	To				
17	63+50	66+00	564.0	1.8	NR	Medium dense Sandy Loam, damp A-2-4, N = 11, WC = 13%
18	66+00	71+10	563.0	1.8	6 inches	Stiff Clay Loam, moist A-4 Qu = 1.75 tsf, WC = 17%

NR Undercutting and/or Aggregate Subgrade Improvement materials are not required at boring location. However, subgrade soils will likely require reduction in moisture content and recompacted prior to fill placement and/or pavement construction.

6.5 Underdrain Placement

IDOT requires the installation of underdrains in areas of pavement reconstruction, wherever cohesive subgrade soils underlie the new pavement section, i.e. the Aggregate Subgrade. The work should be performed in accordance with Article 601 of the 2016 IDOT SSRBC. They should consist of longitudinal underdrains which are placed at the outside edges of the proposed roadway widening, extending 50 to 100-foot in both directions of outlets. Wherever possible, it is best to install transverse underdrains at the low points of undercut areas or otherwise at the low points of the roadway profile. A maximum spacing interval of 300 to 500 feet between transverse underdrains is recommended. All underdrains should outlet into ditches or storm sewers in such manner as to allow positive drainage and should be installed to a depth of at least 30 inches below pavement grade. Given that the Sandy Loam materials found at approximate subgrade level in most of the borings, it is also recommended that the underdrains be wrapped with geotextile fabric.

6.6 Sewer Construction

It is understood that new storm sewers are planned as part of roadway reconstruction. The size and specific inverts were not available at the time this report was written. However, it is understood that the new sewers will be installed as shallow as possible.

Loose Sand and Sandy Loam deposits were typically encountered below the pavement section in the borings. These granular materials are considered suitable for sewer pipe support and trench backfill. However, these materials were typically in a wet to saturated condition below a depth of 5½ feet in the

PAVEMENT CORE RESULTS

(Each component of pavement section listed from top down.)

Core 1:	1.4"	Bituminous Surface Course	
	0.6"	Bituminous Surface Course	
	2.2"	Bituminous Surface Course	
	0.9"	Bituminous Surface Course	(Not bonded to layer below)
	6.5"	Portland Cement Concrete	(No steel observed)
	11½"	**Total Pavement Thickness**	
	2"	Crushed Stone Base Course	(1" Max to fine)
Core 2:	2.0"	Bituminous Surface Course	
	1.8"	Bituminous Surface Course	
	3¾"	**Total Pavement Thickness**	
	7"	Crushed Concrete Base Course	(1" Max to fine)
Core 3:	3.0"	Bituminous Surface Course	
	1.3"	Bituminous Surface Course	
	4¼"	**Total Asphalt Thickness**	
	12"	Crushed Concrete Base Course	(1" Max to fine)
Core 4:	2.8"	Bituminous Surface Course	(Not bonded to layer below)
	6.5"	Portland Cement Concrete	(Partially deteriorated, 3/16" dia steel 4¾" above bottom)
	9¼"	**Total Pavement Thickness**	
Core 5:	3.4"	Bituminous Surface Course	(Not bonded to layer below)
	±11"	Portland Cement Concrete	(Deteriorated, 3/16" dia steel mesh)
	±14½"	**Approximate Pavement Thickness**	
Core 6:	9.2"	Bituminous Surface Course	(No steel observed)
	9¼"	**Total Pavement Thickness**	
	12"	Crushed Stone Base Course	(¾" Max to fine)
Core 7:	2.3"	Bituminous Surface Course	
	1.0"	Bituminous Surface Course	
	3¼"	**Total Asphalt Thickness**	
	14"	Crushed Stone Base Course	(¾" Max to fine)

Core 8:	1.8"	Bituminous Surface Course	
	1.4"	Bituminous Surface Course	
	3¼"	**Total Asphalt Thickness**	
	13"	Crushed Gravel Base Course	(1" Max to fine)
Core 9:	1.7"	Bituminous Surface Course	
	2.1"	Bituminous Surface Course	
	3¾"	**Total Asphalt Thickness**	
	9"	Crushed Stone Base Course	(1" Max to fine)
Core 10:	1.4"	Bituminous Surface Course	
	2.1"	Bituminous Binder Course	
	3½"	**Total Asphalt Thickness**	
	10"	Crushed Stone Base Course	(1" Max to fine)
Core 11:	0.7"	Bituminous Sand Mixture	
	0.9"	Bituminous Surface Course	(Not bonded to layer below)
	2.7"	Bituminous Binder Course	
	4¼"	**Total Asphalt Thickness**	
	10"	Foundry Sand and Cinders Subbase	(½" Max to fine)
Core 12:	3.0"	Bituminous Surface Course	
	3"	**Total Asphalt Thickness**	
	9"	Crushed Stone Base Course	(1" Max to fine)

TESTING SERVICE CORPORATION

457 EAST GUNDERSEN DR. · CAROL STREAM, ILLINOIS 60188-2492 · FAX: (630) 653-2726 · TEL: (630) 653-3920

Subgrade Test Results

Date Tested
03/19/18
Job Number
L-87,999
Page Number
1 of 2

Client: **Christopher B. Burke Engineering, Ltd.**
9575 West Higgins Road Suite 600
Rosemont, IL 60018-4920

Project: **Roadway Reconstruction**
Broadway Street from Spring Road to IL 113
Coal City, IL

Test Data

Location	Depth	Moisture (%)	Qp (tsf)	γ Dry (pcf)	Soil Description
Core 1	1.1' - 2.0'	11.7	---	---	Dark brown fine to medium SAND, moist A-1-a
	2.0' - 3.0'	9.1	---	---	Brown fine to medium SAND, moist A-1-a
Core 2	0.9' - 1.7'	26.6	0.75	---	Black clayey TOPSOIL, little sand, very moist A-7-6
	1.7' - 3.0'	11.7	---	---	Brown SANDY LOAM, moist A-2-4
Core 3	1.3' - 2.5'	12.6	---	---	FILL - Dark brown SANDY LOAM, trace clay and brick pieces, very moist A-2-4
	2.5' - 3.0'	8.2	---	---	FILL - Brown SANDY LOAM, trace brick pieces, moist A-2-4
Core 4	0.9' - 1.5'	19.7	---	---	FILL - Dark brown SANDY LOAM, moist A-2-4
	1.5' - 3.0'	13.3	---	---	FILL - Brown SANDY LOAM, moist A-2-4
Core 5	1.3' - 2.5'	36.9	1.25	---	Black clayey TOPSOIL, trace sand A-7-6
	2.5' - 3.0'	20.3	---	---	Brown trace gray SANDY LOAM, very moist A-2-4
Core 6	1.8' - 3.0'	22.9	1.75	96	FILL - Dark brown CLAY LOAM, trace gravel and asphalt pieces, moist A-6

Depth = Feet below top of pavement

Qp = Unconfined compressive strength in tons per square foot based on readings with a calibrated pocket penetrometer

Comments

Subgrade samples taken to approximately 3 feet below existing grade.

Field Technician(s)	Lab Technician	Reviewed By
J.J.M.	**M.Q.**	**A.P.P.**

Subgrade Test Results

TESTING SERVICE CORPORATION

457 EAST GUNDERSEN DR. · CAROL STREAM, ILLINOIS 60188-2492 · FAX: (630) 653-2726 · TEL: (630) 653-3920

Date Tested
03/19/18
Job Number
L-87,999
Page Number
2 of 2

Client: **Christopher B. Burke Engineering, Ltd**
9575 West Higgins Road Suite 600
Rosemont, IL 60018-4920

Project: **Roadway Reconstruction**
Broadway Street from Spring Road to IL 113
Coal City, IL

Test Data

Location	Depth	Moisture (%)	Qp (tsf)	γ Dry (pcf)	Soil Description
Core 7	1.4' - 2.2'	16.7	---	---	FILL - Dark brown SANDY LOAM, moist A-2-4
	2.2' - 3.0'	13.5	---	---	FILL - Brown SANDY LOAM, moist A-2-4
Core 8	1.3' - 3.0'	10.6	---	---	FILL - Dark brown SANDY LOAM, moist A-2-4
Core 9	1.1' - 1.6'	18.6	1.25	---	FILL - Dark brown CLAY LOAM, trace gravel, very moist A-6
	1.6' - 2.0'	13.8	---	---	Brown SANDY LOAM, very moist A-2-4
	2.0' - 3.0'	11.0	---	---	Brown and gray SANDY LOAM, very moist A-2-4
Core 10	1.1' - 1.8'	29.2	1.0	84	FILL - Dark brown and gray CLAY, trace gravel and asphalt pieces, very moist A-6
	1.8' - 3.0'	15.5	---	---	FILL - Brown and gray SANDY LOAM, very moist A-2-4
Core 11	1.2 - 3.0'	33.3	1.3	89	FILL - Dark brown and gray SANDY LOAM, asphalt pieces, very moist A-2-4
Core 12	1.0' - 2.5'	63.2	1.5	---	Black clayey TOPSOIL, very moist A-8
	2.5' - 3.0'	15.8	1.25	---	Brown and gray CLAY LOAM, very moist A-6

Depth = Feet below top of pavement

Qp = Unconfined compressive strength in tons per square foot based on readings with a calibrated pocket penetrometer

Comments

Subgrade samples taken to approximately 3 feet below existing grade.

Field Technician(s)	Lab Technician	Reviewed By
J.J.M.	**M.Q.**	**A.P.P.**

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **1** DATE STARTED **3-20-18** DATE COMPLETED **3-20-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **571.5**

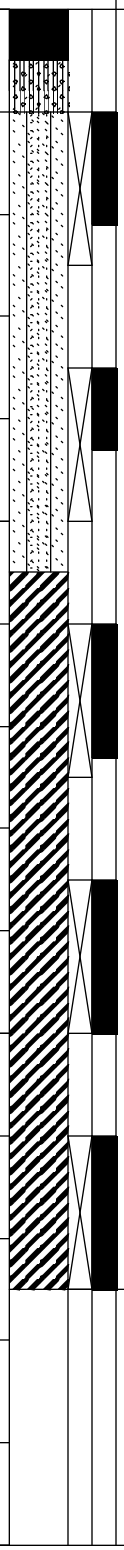
END OF BORING **559.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS



SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
								6" Bituminous Concrete
						0.5	571.0	6" P.C. Concrete
						1.0	570.5	
1	SS	9	16.8					Loose brown silty fine SAND, trace gravel, moist (SM)
2	SS	4	14.3					A-2-4 SANDY LOAM
						5.5	566.0	
3	SS	7	31.7	2.02 2.25*				Stiff to very stiff brown and gray silty CLAY, trace to little sand, moist (CL/CH)
4	SS	9	32.4	1.75*				A-7-6 CLAY
5	SS	8	30.3	2.0*				
								End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **2** DATE STARTED **3-19-18** DATE COMPLETED **3-19-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **570.5**

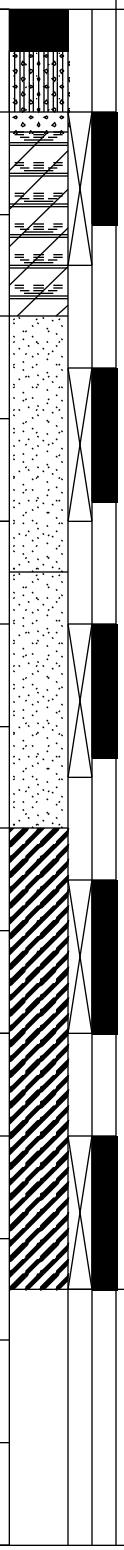
END OF BORING **558.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **5.0 '**

24 HOURS



SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
						0.4	570.1	5" Bituminous Concrete
						1.0	569.5	7" P.C. Concrete
						1.2	569.3	2" Crushed Stone Base
1	SS	15	11.0					Black sandy TOPSOIL, moist (OL) A-7-6 LOI = 6.4%
						3.0	567.5	
2	SS	10						Medium dense brown SAND, trace to little silt, moist to wet (SP) A-1-b SAND
						5.5	565.0	
3	SS	17						Medium dense brown SAND, trace to little gravel, saturated (SP) A-1-b SAND
						8.0	562.5	
4	SS	15	30.0	1.66 1.75*				Stiff to very stiff gray silty CLAY, trace to little sand, moist (CL/CH) A-7-6 CLAY
5	SS	15	28.8	2.0*				
								End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **3** DATE STARTED **3-20-18** DATE COMPLETED **3-20-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **570.0**

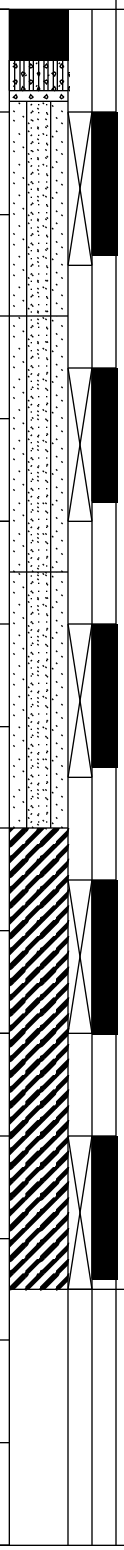
END OF BORING **557.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **5.0 '**

24 HOURS



LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.5	569.5	6" Bituminous Concrete
							0.8	569.2	4" P.C. Concrete
							0.9	569.1	1" Crushed Stone
	1	SS	5	20.1					Loose black silty fine SAND, trace organic, moist (SM) A-2-4 SANDY LOAM
							3.0	567.0	
	2	SS	8	16.2					Loose brown silty fine SAND, moist to wet (SM) A-2-4 SANDY LOAM
							5.5	564.5	
	3	SS	11	22.7					Medium dense brown silty fine SAND, wet (SM) A-2-4 SANDY LOAM
							8.0	562.0	
	4	SS	15	31.3	1.75 1.75*				Stiff gray silty CLAY, trace sand, moist (CL/CH) A-7-6 CLAY
	5	SS	13	29.1	1.75*				
									End of Boring at 12.5' * Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **4** DATE STARTED **3-19-18** DATE COMPLETED **3-19-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **569.0**

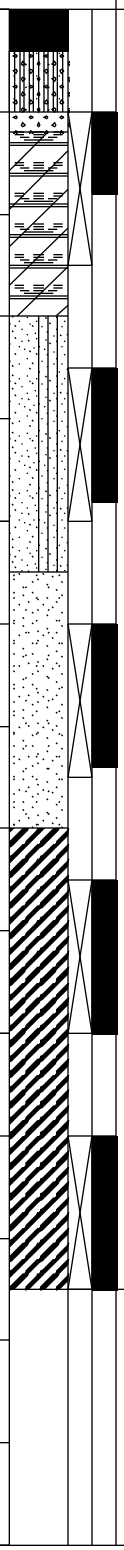
END OF BORING **556.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **5.0 '**

24 HOURS



LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.4	568.6	5" Bituminous Concrete
							1.0	568.0	7" P.C. Concrete
							1.2	567.8	2" Crushed Concrete
	1	SS	5	12.6					Black sandy TOPSOIL, moist (OL) A-7-6 LOI = 3.3%
							3.0	566.0	
	2	SS	6						Loose brown SAND, trace to little silt, moist (SP-SM) A-1-b SAND
							5.5	563.5	
	3	SS	23						Medium dense brown SAND, wet to saturated (SP) A-1-b SAND
							8.0	561.0	
	4	SS	15	29.9	2.24 2.25*				Very stiff gray silty CLAY, little sand, moist (CL/CH) A-7-6 CLAY
	5	SS	17	28.8	2.25*				
									End of Boring at 12.5' * Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **5** DATE STARTED **3-20-18** DATE COMPLETED **3-20-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **568.5**

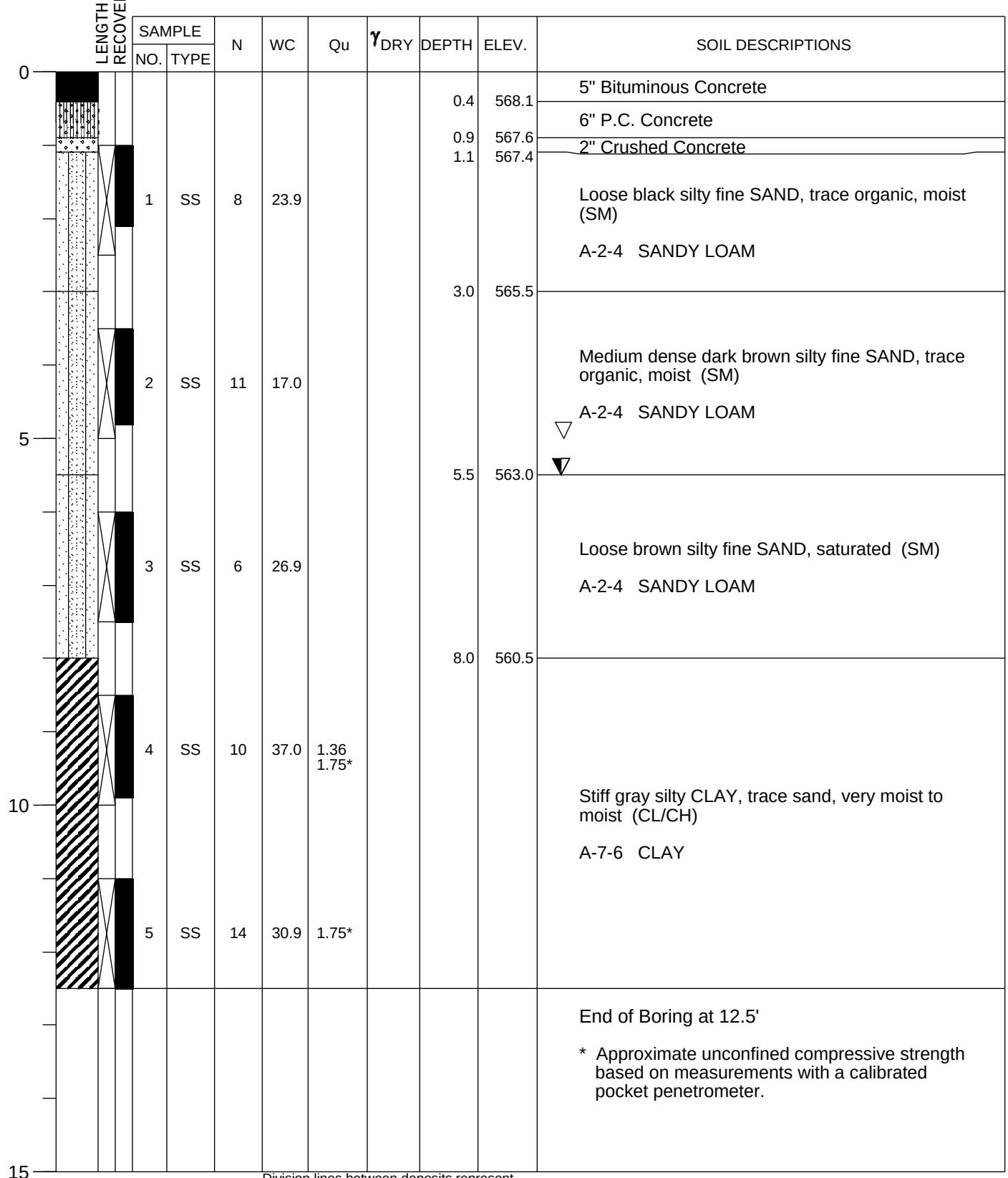
END OF BORING **556.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **5.0 '**

24 HOURS



DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **6** DATE STARTED **3-19-18** DATE COMPLETED **3-19-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **568.0**

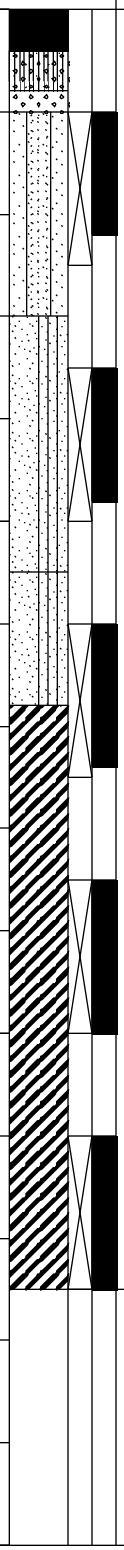
END OF BORING **555.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **8.0 '**

24 HOURS



SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
						0.4	567.6	5" Bituminous Concrete
						0.8	567.2	5" P.C. Concrete
						1.0	567.0	2" Crushed Concrete
1	SS	10	13.7					Loose to medium dense brown silty fine SAND, trace organic, moist (SM) A-2-4 SAND
						3.0	565.0	
2	SS	16						Medium dense brown fine SAND, trace to little silt, moist to very moist (SP-SM) A-1-a SAND
						5.5	562.5	
A								Loose brown fine SAND, trace to little silt and sand, very moist (SP-SM) A-1-a SAND
3	SS	6	22.1			6.8	561.2	
B			32.0	1.41 1.5*				
4	SS	8	34.3	1.0*				Medium stiff gray silty CLAY, trace sand, very moist (CL/CH) A-7-6 CLAY
5	SS	9	32.4	1.0*				
								End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **7** DATE STARTED **3-20-18** DATE COMPLETED **3-20-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **567.5**

END OF BORING **555.0**

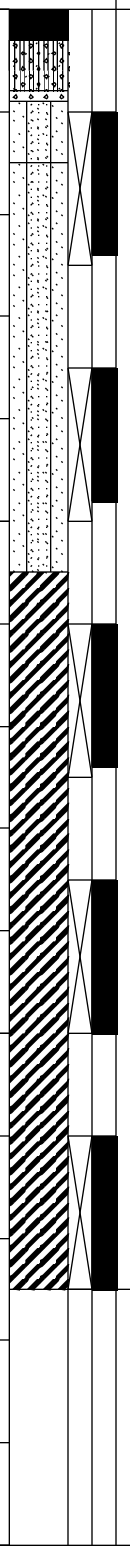
WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **5.0 '**

24 HOURS

DISTANCE BELOW SURFACE IN FEET



LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.3	567.2	4" Bituminous Concrete
							0.8	566.7	5" P.C. Concrete
							0.9	566.6	2" Crushed Stone Base
	A			12.8			1.5	566.0	Loose black silty fine SAND, trace organic, very moist (SM) A-4 SANDY LOAM
	1	SS	8						
	B			12.7					
									Loose to medium dense brown silty fine SAND, moist to very moist (SM)
	2	SS	17	17.4					A-2-4 SANDY LOAM
							5.5	562.0	
	3	SS	12	29.3	3.21 3.0*				
									Stiff to very stiff gray silty CLAY, trace to little sand, moist to very moist (CL/CH)
	4	SS	12	31.2	1.75*				A-7-6 CLAY
	5	SS	14	31.5	1.5*				
									End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **8** DATE STARTED **3-19-18** DATE COMPLETED **3-19-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **567.5**

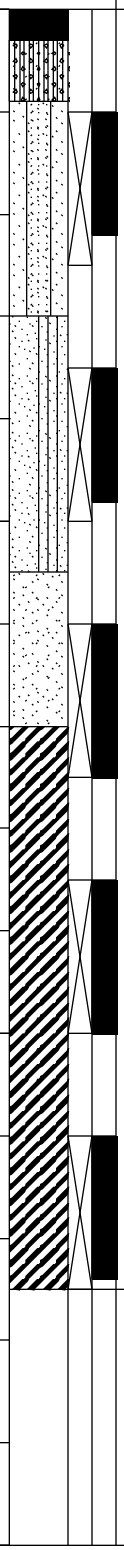
END OF BORING **555.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **9.5 '**

24 HOURS



DISTANCE BELOW SURFACE IN FEET

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.3	567.2	3" Bituminous Concrete
							0.9	566.6	8" P.C. Concrete
	1	SS	7	8.8					Loose dark brown silty fine SAND, trace organic, moist (SM) A-2-4 SANDY LOAM
							3.0	564.5	
	2	SS	11						Medium dense brown SAND, trace silt, moist (SP-SM) A-1-b SAND
							5.5	562.0	▼
	A			20.4					Medium dense brown SAND, saturated (SP)
	3	SS	11						A-1-b SAND
	B			29.4	1.66 1.75*		7.0	560.5	
	4	SS	16	30.4	2.75*				▽ Stiff to very stiff gray silty CLAY, trace to little sand, moist (CL/CH) A-7-6 CLAY
	5	SS	16	30.1	2.25*				
									End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **9** DATE STARTED **3-20-18** DATE COMPLETED **3-20-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **568.0**

END OF BORING **555.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **9.0 '**

24 HOURS

DISTANCE BELOW SURFACE IN FEET

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.4	567.6	5" Bituminous Concrete
							0.9	567.1	6" P.C. Concrete
							1.0	567.0	1" Crushed Concrete
	1	SS	9	14.6					Loose black silty fine SAND, trace organic, damp (SM) A-2-4 SANDY LOAM
							3.0	565.0	
	2	SS	12	8.0					Medium dense brown silty fine SAND, damp to moist (SM) A-2-4 SANDY LOAM
							5.5	562.5	
	3	SS	22	23.4					Medium dense brown silty fine SAND, saturated (SM) A-2-4 SAND
							8.0	560.0	
	4	SS	7	32.6	1.75*				Stiff gray silty CLAY, trace sand, moist (CL/CH) A-7-6 CLAY
	5	SS	9	32.4	1.75*				
									End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 87999.GPJ TSC_ALL.GDT 4/10/18

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **10** DATE STARTED **3-19-18** DATE COMPLETED **3-19-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **570.5**

END OF BORING **555.5**

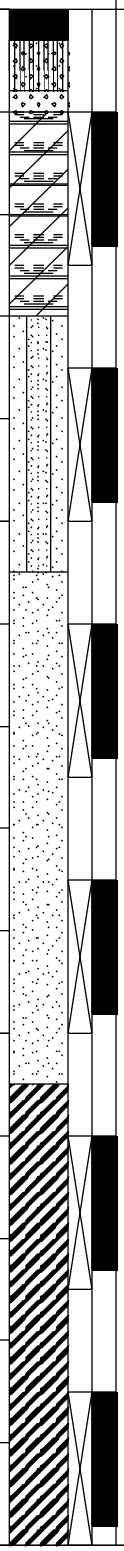
WATER LEVEL OBSERVATIONS

WHILE DRILLING **10.5 '**

AT END OF BORING **9.5 '**

24 HOURS

DISTANCE BELOW SURFACE IN FEET



LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.3	570.2	3" Bituminous Concrete
							0.8	569.7	7" P.C. Concrete
							1.0	569.5	2" Crushed Concrete
	1	SS	4	22.6					Dark brown sandy TOPSOIL, moist (OL) A-7-6 LOI = 10.6%
							3.0	567.5	
	2	SS	8	12.2					Loose brown silty fine SAND, moist (SM) A-2-4 SANDY LOAM
							5.5	565.0	
	3	SS	12						Medium dense brown SAND, trace silt, moist to wet (SP) A-1-b SAND
	4	SS	13						
							10.5	560.0	
	5	SS	6	32.4	1.47 1.5*				Stiff gray silty CLAY, trace sand, very moist (CL/CH) A-7-6 CLAY
	6	SS	12	31.9	1.28 1.5*				* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

End of Boring at 15.0'

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **11** DATE STARTED **3-20-18** DATE COMPLETED **3-20-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **566.5**

END OF BORING **554.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **Dry**

24 HOURS

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.2	566.3	3" Bituminous Concrete
							0.8	565.7	7" P.C. Concrete
							1.0	565.5	2" Crushed Concrete
	A			28.1					Loose black silty fine SAND, trace organic, very moist (SM) A-2-4 SANDY LOAM
	1	SS	5				2.0	564.5	
	B			16.4					
									Medium dense brown silty fine SAND, very moist (SM)
	2	SS	12	18.3					A-2-4 SANDY LOAM
							5.5	561.0	
	3	SS	12	28.2	2.68 2.75*				
									Very stiff gray silty CLAY, little sand, moist (CL/CH)
	4	SS	10	23.5	3.5*				A-7-6 CLAY
	5	SS	13	31.9	2.5*				
									End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **12** DATE STARTED **3-19-18** DATE COMPLETED **3-19-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **565.0**

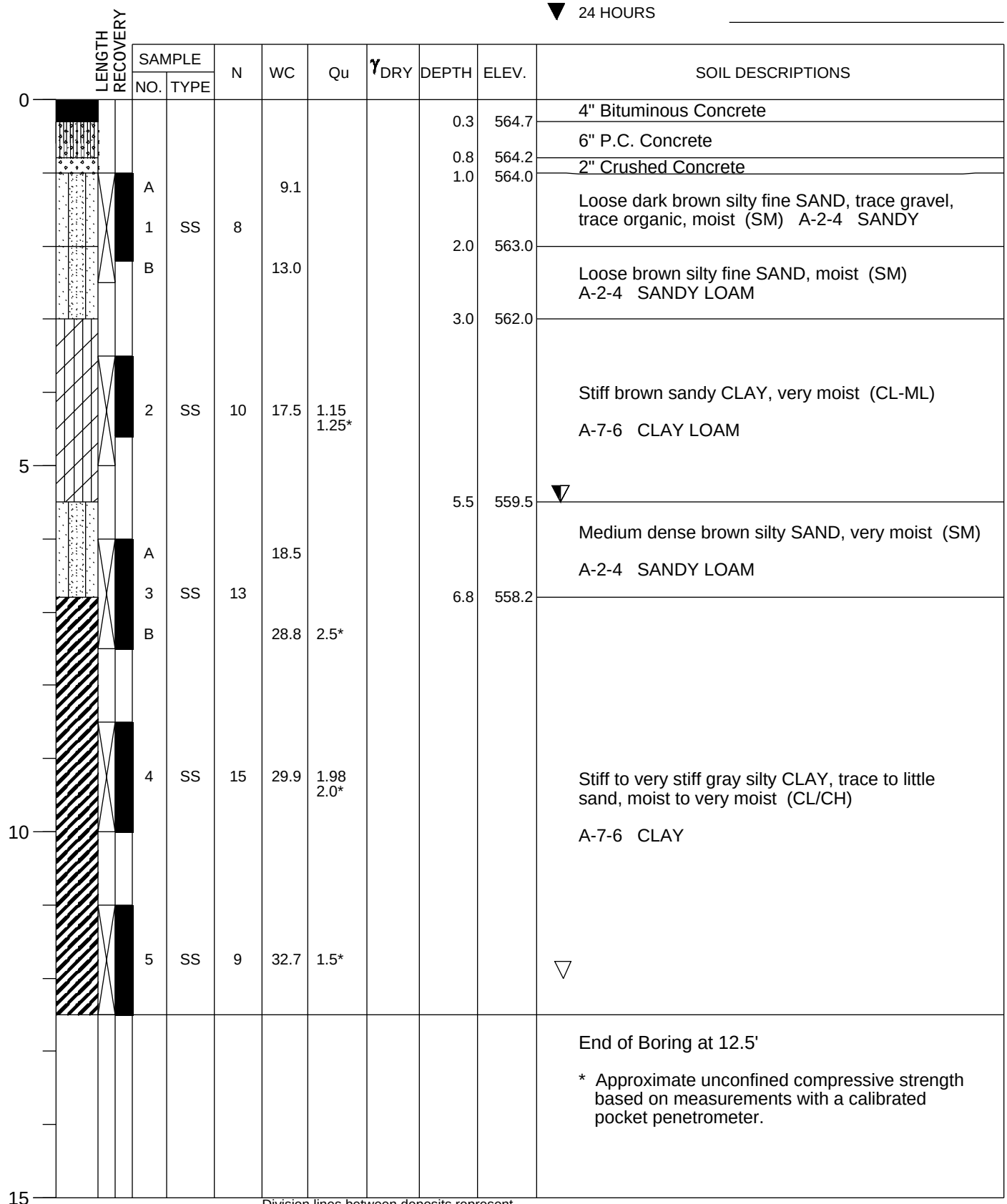
END OF BORING **552.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **12.0 '**

24 HOURS



DISTANCE BELOW SURFACE IN FEET

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **13** DATE STARTED **3-20-18** DATE COMPLETED **3-20-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **565.0**

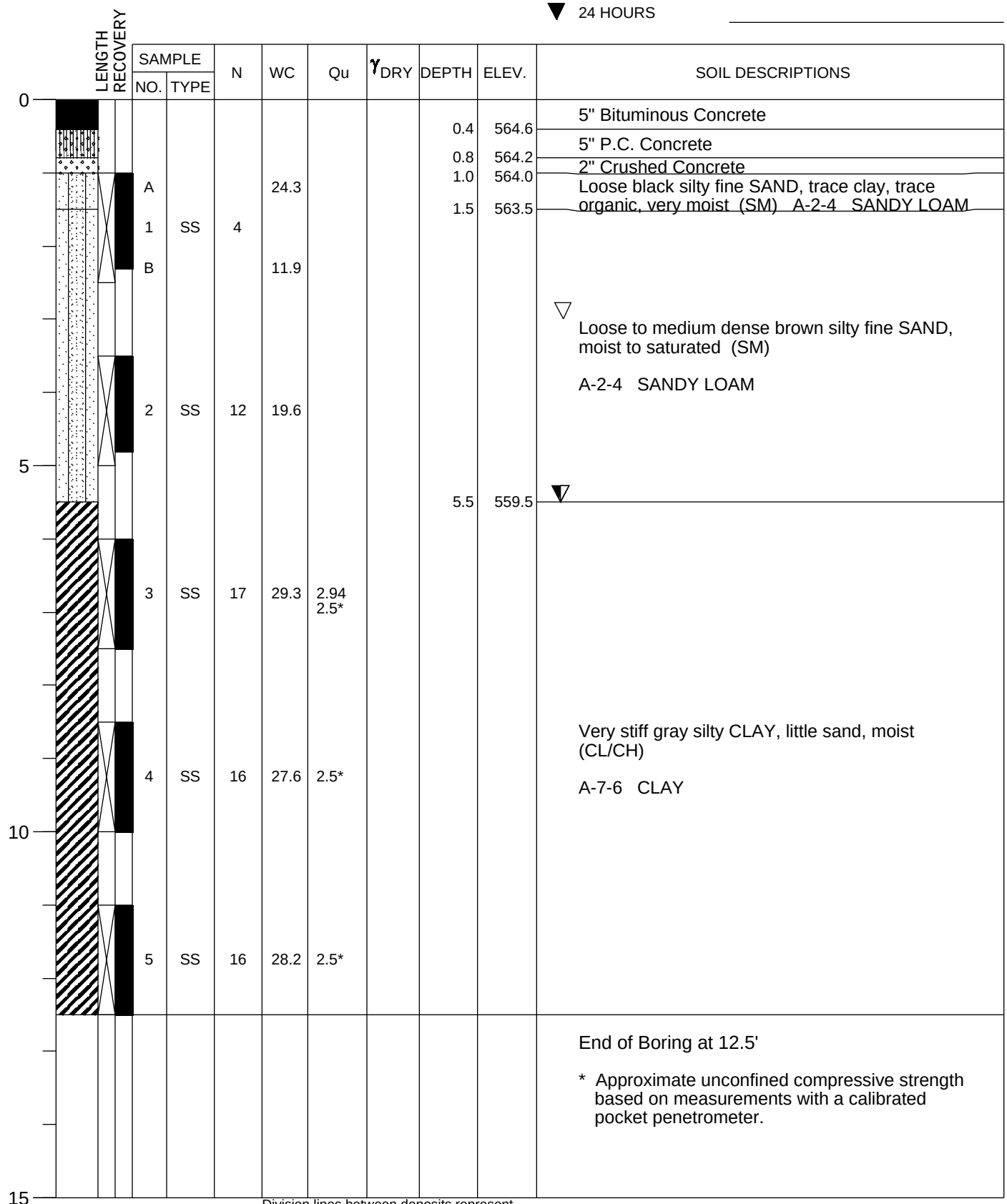
END OF BORING **552.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **3.0 '**

24 HOURS



DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **14** DATE STARTED **3-19-18** DATE COMPLETED **3-19-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **566.0**

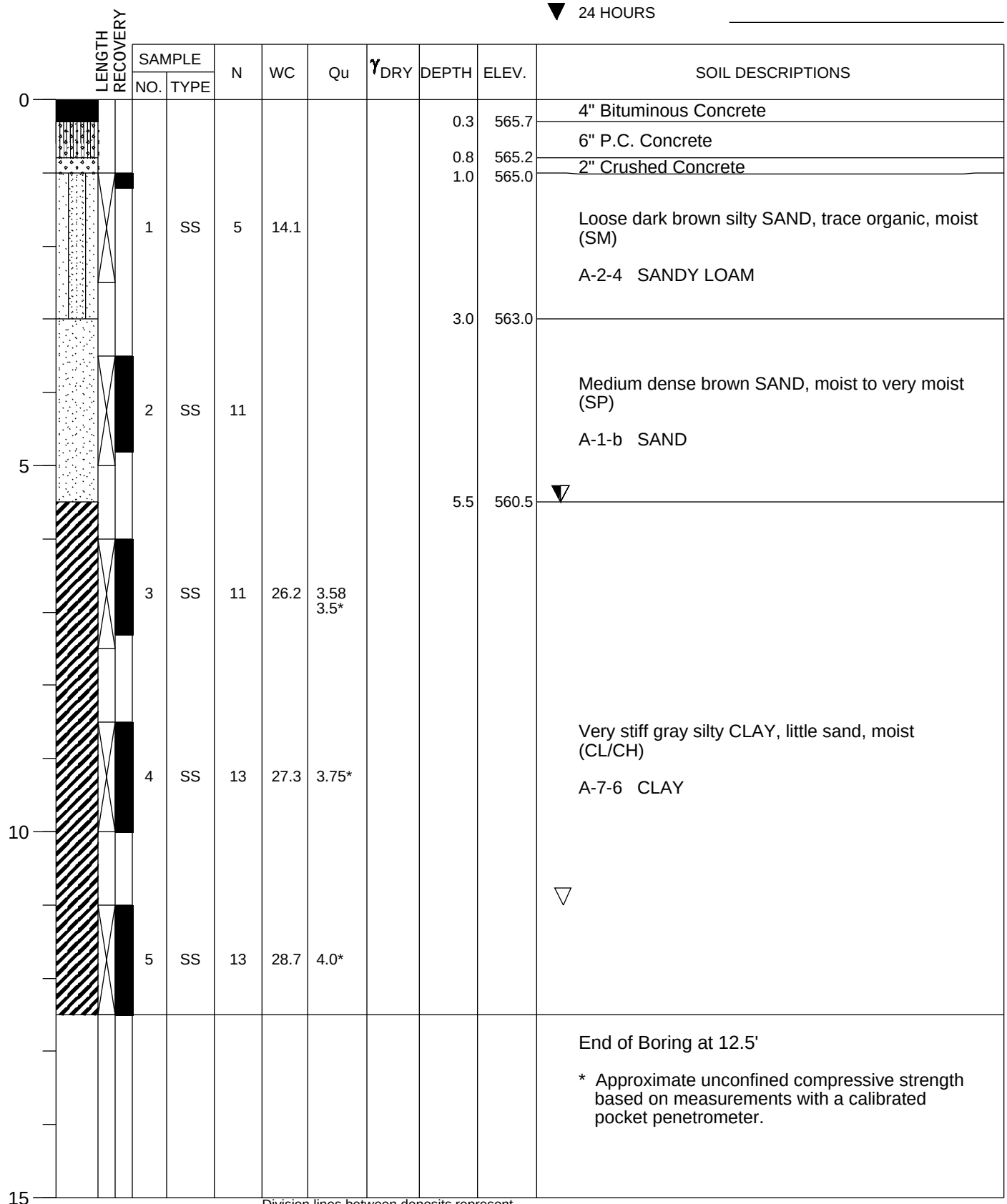
END OF BORING **553.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **11.0 '**

24 HOURS



SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.3	565.7	4" Bituminous Concrete
							0.8	565.2	6" P.C. Concrete
							1.0	565.0	2" Crushed Concrete
1	SS		5	14.1					Loose dark brown silty SAND, trace organic, moist (SM) A-2-4 SANDY LOAM
							3.0	563.0	
2	SS		11						Medium dense brown SAND, moist to very moist (SP) A-1-b SAND
							5.5	560.5	
3	SS		11	26.2	3.58 3.5*				
4	SS		13	27.3	3.75*				Very stiff gray silty CLAY, little sand, moist (CL/CH) A-7-6 CLAY
5	SS		13	28.7	4.0*				
									End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15

DRILL RIG NO. **262**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **15** DATE STARTED **3-20-18** DATE COMPLETED **3-20-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **566.0**

END OF BORING **553.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **9.0 '**

24 HOURS

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.3	565.7	3" Bituminous Concrete
							0.8	565.2	7" P.C. Concrete
							1.1	564.9	3" Crushed Concrete
	1	SS	3	17.5					Very loose black silty fine SAND, trace organic, moist (SM) A-2-4 SANDY LOAM
							3.0	563.0	
	2	SS	13	7.0					Medium dense brown silty fine SAND, damp to very moist (SM) A-2-4 SANDY LOAM
							5.5	560.5	
	3	SS	6	28.8	2.94 2.5*				
	4	SS	15	28.2	2.5*				Very stiff gray silty CLAY, little sand, moist (CL/CH) A-7-6 CLAY
	5	SS	14	30.2	2.5*				
									End of Boring at 12.5' * Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 87999.GPJ TSC_ALL.GDT 4/10/18

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **16** DATE STARTED **3-11-18** DATE COMPLETED **3-11-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **565.5**

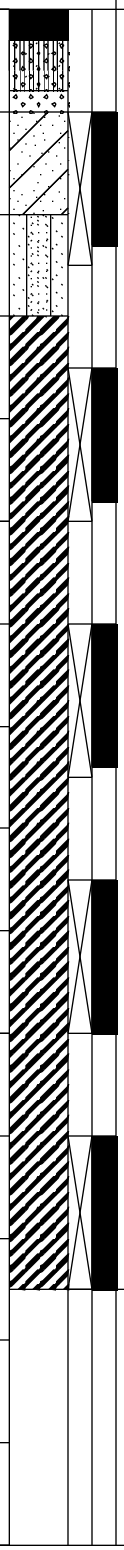
END OF BORING **553.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **Dry**

AT END OF BORING **Dry**

24 HOURS



LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.3	565.2	4" Bituminous Concrete
							0.8	564.7	6" P.C. Concrete
							1.0	564.5	2" Crushed Concrete
	A			11.5					Loose dark brown clayey SAND, trace organic, moist (SC) A-2-4 SANDY LOAM
	1	SS	9				2.0	563.5	
	B			9.2					Loose brown silty SAND, moist (SM) A-2-4 SANDY LOAM
							3.0	562.5	
	2	SS	6	28.8	1.21 1.5*				Stiff to very stiff brown and gray silty CLAY, trace sand, moist to very moist (CL/CH) A-7-6 CLAY
	3	SS	14	27.7	3.25*				
	4	SS	12	28.9	2.75*				
	5	SS	10	30.1	1.75*				
									End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15

DRILL RIG NO. **262**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **17** DATE STARTED **3-20-18** DATE COMPLETED **3-20-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **564.0**

END OF BORING **551.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **8.0 '**

24 HOURS

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0		
									13" Bituminous Concrete
	A			8.9			1.1	562.9	
									9" Crushed Stone Base
	1	SS	11				1.8	562.2	
									Medium dense black silty SAND, little gravel, damp (SM)
	B			12.6			2.5	561.5	A-2-4 SANDY LOAM
									Loose brown silty fine SAND, damp to very moist (SM)
	2	SS	7	18.4					A-2-4 SANDY LOAM
							5.5	558.5	
	3	SS	8	27.2	2.75 3.0*				
									Very stiff gray silty CLAY, little sand, moist (CL/CH)
	4	SS	13	30.2	2.15 3.0*				A-7-6 CLAY
	5	SS	14	29.7	3.0*				
									End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Roadway Reconstruction, Broadway St. from Spring Rd. to IL-113, Coal City, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 West Higgins Road, Rosemont, IL**

BORING **18** DATE STARTED **3-19-18** DATE COMPLETED **3-20-18** JOB **L-87,999**

ELEVATIONS

GROUND SURFACE **563.0**

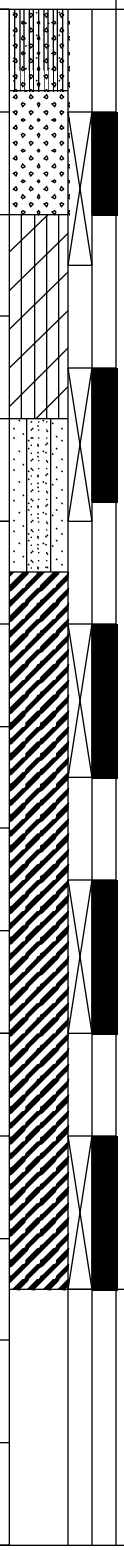
END OF BORING **550.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **5.5 '**

AT END OF BORING **Dry**

24 HOURS



SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
						0.8	562.2	9" P.C. Concrete
1	SS	11				2.0	561.0	15" Crushed Stone Base
A			17.2	1.75*				Stiff black sandy CLAY, moist (CL-ML) A-6 CLAY LOAM
2	SS	10				4.0	559.0	
B			37.2					Medium dense brown and gray silty fine SAND, very moist (SM) A-2-4 SANDY LOAM
						5.5	557.5	
3	SS	15	28.2	3.21 3.5*				
4	SS	16	26.9	4.5+*				Very stiff to hard gray silty CLAY, trace sand, moist (CL/CH) A-7-6 CLAY
5	SS	16	27.7	4.5+*				
								End of Boring at 12.5'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15

DRILL RIG NO. **358**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

BORING LOCATION PLAN
ROADWAY RECONSTRUCTION
BROADWAY STREET FROM SPRING ROAD TO IL 113
COAL CITY, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

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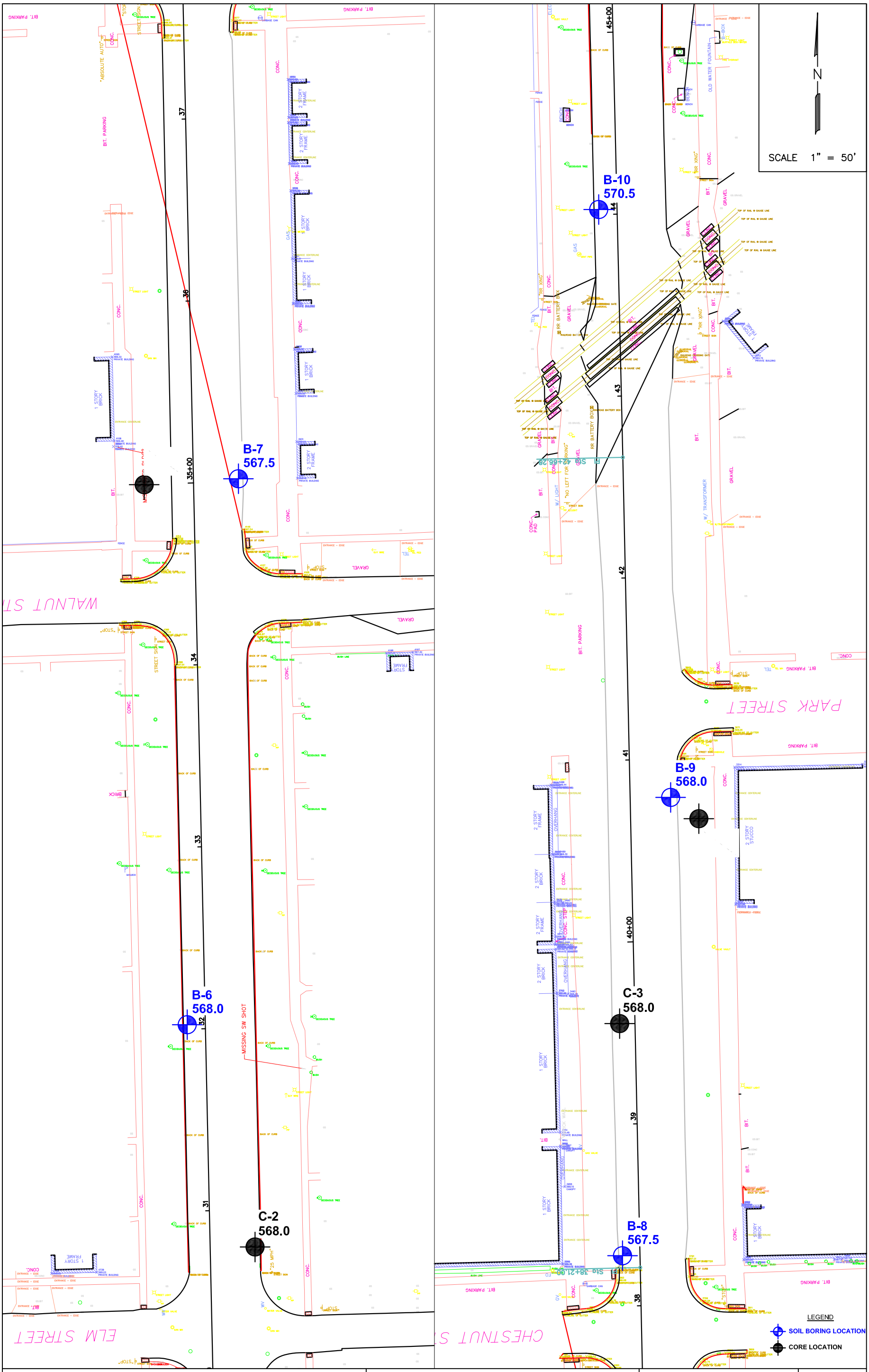
JOB NO. :	L-87,999
DATE:	03-30-18

PAGE NO.
1 OF 4



BORING LOCATION PLAN
ROADWAY RECONSTRUCTION
BROADWAY STREET FROM SPRING ROAD TO IL 113
COAL CITY, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

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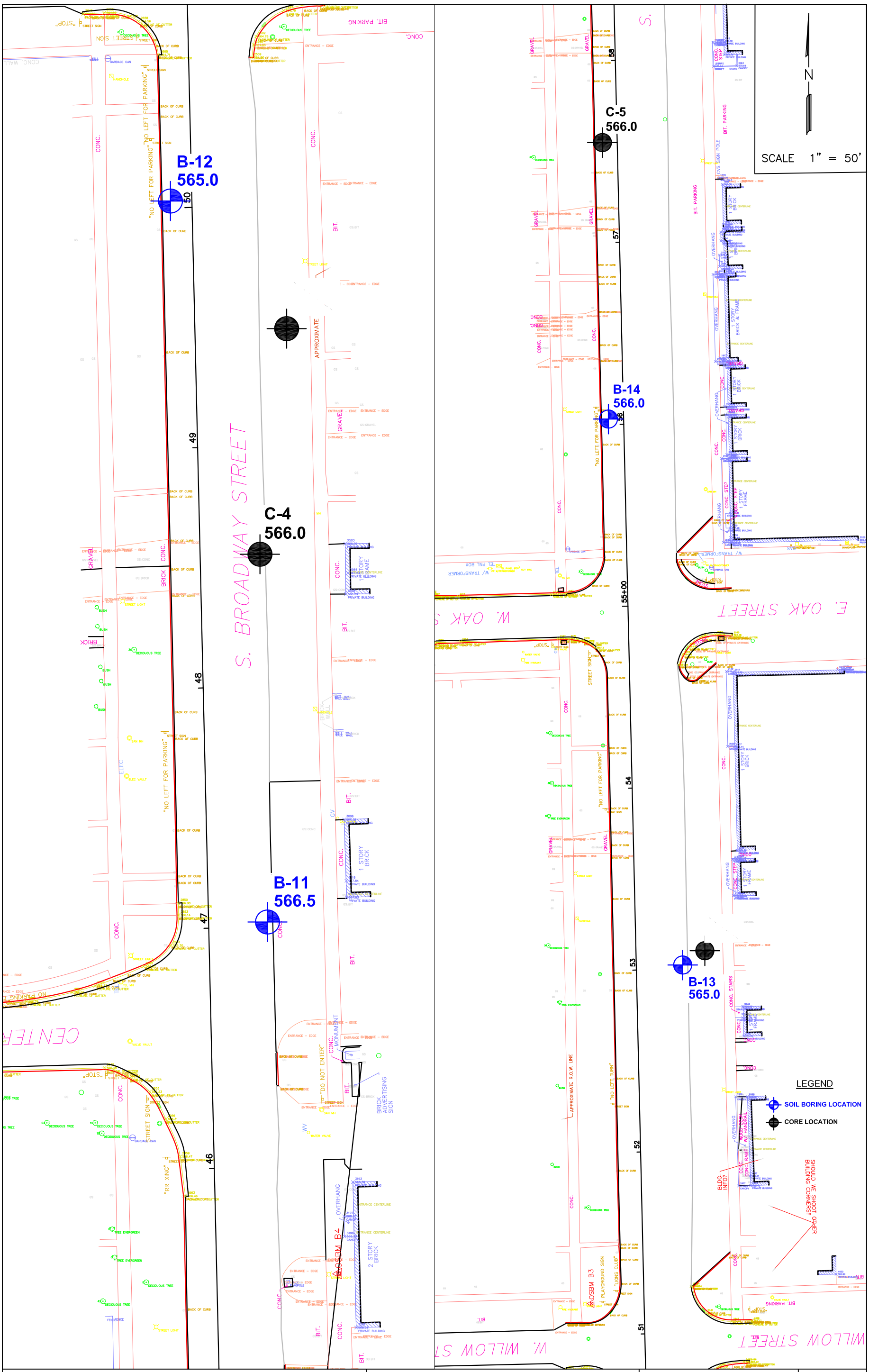

BORING LOCATION PLAN
ROADWAY RECONSTRUCTION
BROADWAY STREET FROM SPRING ROAD TO IL 113
COAL CITY, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

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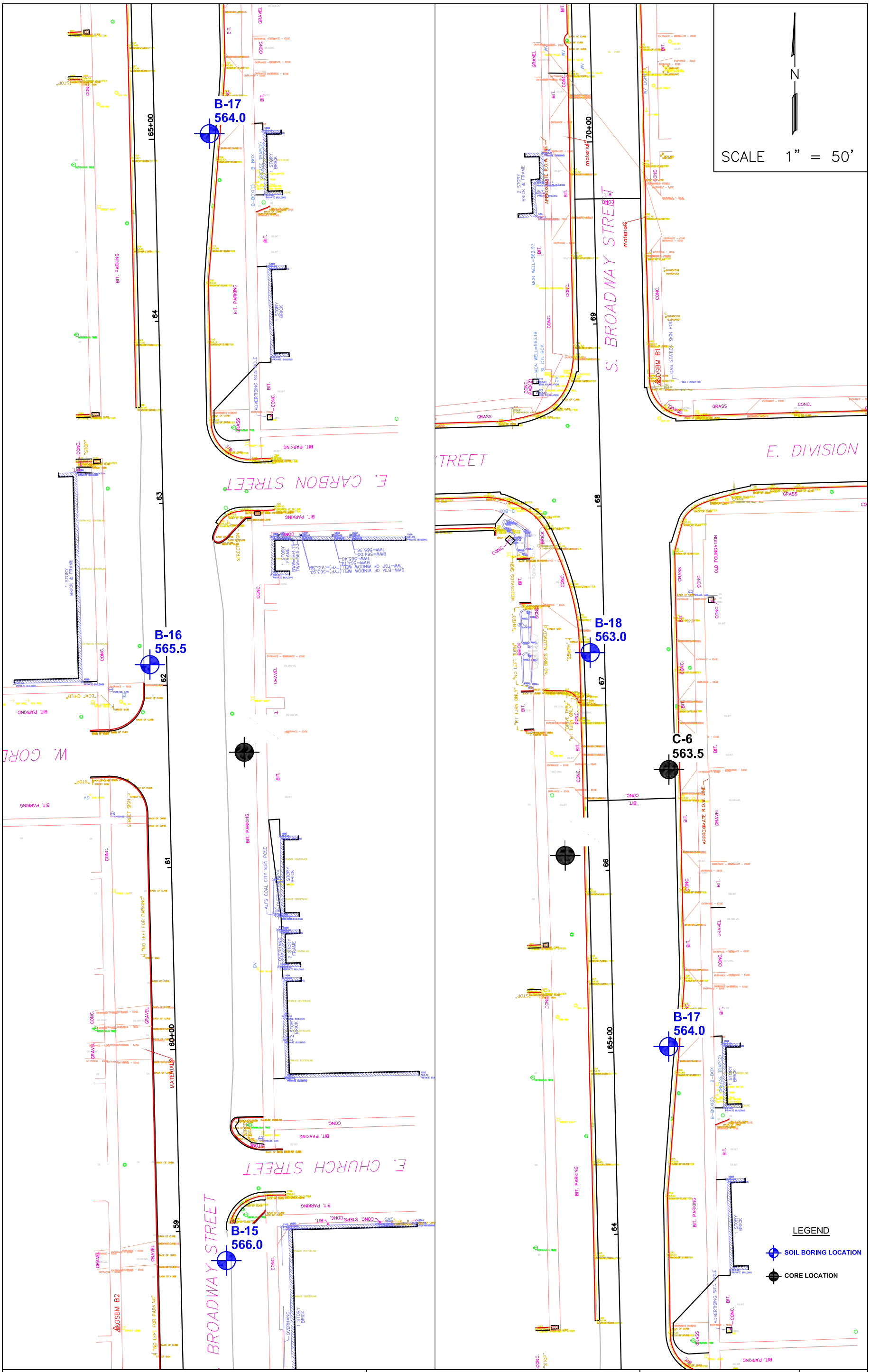

BORING LOCATION PLAN
ROADWAY RECONSTRUCTION
BROADWAY STREET FROM SPRING ROAD TO IL 113
COAL CITY, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

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DATE:	03-30-18

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The pavement cores and aggregate samples were examined by a construction materials technician in the laboratory. These detailed results are shown on the attached sheet titled "Pavement Core Results". Bituminous layers are listed individually, including their average thicknesses and condition comments. Total asphalt and base course thicknesses are also given, rounded to the nearest ¼" and 1", respectively.

Subgrade soil samples were examined in the laboratory to verify field descriptions and to classify them in accordance with the AASHTO Soil Classification System. Laboratory testing included moisture content determinations for all cohesive soils and intermediate (silt or loamy) soil types, along with dry unit weight determinations on cohesive fill. An estimate of unconfined compressive strength was also obtained for all cohesive soils using a calibrated pocket penetrometer. The soil descriptions at the core locations are summarized on the attached sheet titled “Subgrade Test Results”. The depth of the samples are referenced to the top of the pavement (in feet).

Pavement Core Results

Results of the nine (9) pavement cores are summarized in the following table, i.e., general locations, bituminous concrete, P.C. concrete, and total pavement thicknesses given:

SUMMARY OF CORE RESULTS

Core No.	General Locations	Bituminous Concrete Thickness* (in)	P.C. Concrete Thickness* (in)	Total Pavement Thickness * (in)
101	Sta. 18+25	5	6¾	11¾
102	Sta. 21+50	5¾	7	12¾
103	Sta. 28+00	6	±7	±13
104	Sta. 33+00	4	8¼	12¼
105	Sta. 42+00	3½	6½	10
106	Sta. 45+50	6¼	8	14¼
107	Sta. 51+50	5½	6	11½
108	Sta. 55+50	5	8	13
109	Sta. 64+00	3	7¼	10¼

* Total bituminous concrete and P.C. concrete thicknesses rounded to the nearest ¼ inch.

Cores 101 - 109 revealed the presence of 3 to 6 inches Hot Mix Asphalt (bituminous concrete), overlying 6 to 8 inches of P.C. concrete. Examination of the core samples revealed that the asphalt sections were typically comprised of a 2 to 5 bituminous surface courses and 0 to 1 bituminous binder courses. The asphalt and P.C. concrete section was not found to be overlying base course materials

in any of the cores. It should be noted that Cores 102, 103 and 109 revealed a lack of bonding between bituminous and P.C. concrete materials. It should also be noted that partial delamination of the P.C. concrete materials was found in Cores 101, 102 and 107 as well as partial deterioration in Core 103.

Native sandy Topsoil materials were found below the pavement section in Cores 102, 103 and 106. They had moisture contents ranging from 11 to 18 percent. The cores otherwise consisted of Sand and/or Sandy Loam soils (native and/or fill). All of the cores were noted as "dry" both during and following completion of field operations.

Closure

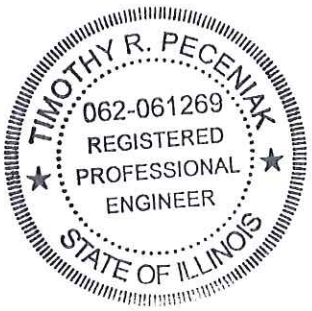
The analyses and recommendations submitted in this report are based upon the data obtained from the nine (9) pavement cores performed at the locations indicated on the Core Location Plan. This report does not reflect any variations which may occur between core locations, the nature and extent of which may not become evident until during the course of construction. If variations are then identified, recommendations contained in this report should be re-evaluated after performing on-site observations.

Please call if there are any questions in regard to this matter or if we may be of further service.

Respectfully submitted,

TESTING SERVICE CORPORATION

Alexander P. Phillips, E.I.T.
Staff Engineer



Timothy R. Peceniak, P.E.
Project Engineer
Registered Professional Engineer
Illinois No. 062-061269

APP:TRP:app
Enc.

PAVEMENT CORE RESULTS

(Each component of pavement section listed from top down.)

Sta. 18+25 3' LT

Core 101:	2.0"	Bituminous Surface Course	
	1.5	Bituminous Surface Course	
	1.5"	Bituminous Binder Course	
	6.7"	Portland Cement Concrete	(No steel observed, partial delamination)
	11¾"	**Total Pavement Thickness**	
		No Base Course Noted	

Sta. 21+50 4' LT

Core 102:	2.2"	Bituminous Surface Course	
	1.1"	Bituminous Surface Course	
	0.7"	Bituminous Surface Course	
	1.7"	Bituminous Binder Course	(Not bonded to layer below)
	7.0"	Portland Cement Concrete	(No steel observed, partial delamination)
	12¾"	**Total Pavement Thickness**	
		No Base Course Noted	

Sta. 28+00 2' LT

Core 103:	2.4"	Bituminous Surface Course	
	2.1"	Bituminous Surface Course	
	1.7"	Bituminous Binder Course	(Not bonded to layer below)
	±7"	Portland Cement Concrete	(No steel observed, partially deteriorated)
	±13"	**Approximate Pavement Thickness**	
		No Base Course Noted	

Sta. 33+00 4' RT

Core 104:	1.5"	Bituminous Surface Course	
	0.9"	Bituminous Surface Course	
	0.9"	Bituminous Surface Course	
	0.8"	Bituminous Surface Course	
	8.2"	Portland Cement Concrete	(3/16" dia steel 4" below top of PCC)
	12¼"	**Total Pavement Thickness**	
		No Base Course Noted	

Sta. 42+00 3' LT

Core 105:	1.2"	Bituminous Surface Course	
	1.1"	Bituminous Surface Course	
	1.0"	Bituminous Surface Course	
	6.6"	Portland Cement Concrete	(3/16" dia steel 3¾" below top of PCC)
	10"	**Total Pavement Thickness**	
		No Base Course Noted	

Sta. 45+50 4' RT

Core 106:	1.7"	Bituminous Surface Course	
	1.0"	Bituminous Surface Course	
	1.3"	Bituminous Surface Course	
	0.9"	Bituminous Surface Course	
	1.4"	Bituminous Surface Course	
	8.0"	Portland Cement Concrete	(3/16" dia steel 4" below top, fractured through at steel)
	14¼"	**Total Pavement Thickness**	
		No Base Course Noted	

Sta. 51+50 5' LT

Core 107:	1.3"	Bituminous Surface Course	
	1.7"	Bituminous Surface Course	
	1.4"	Bituminous Surface Course	
	1.1"	Bituminous Surface Course	
	6.0"	Portland Cement Concrete	(3/16" dia steel 2" below top of PCC)
	11½"	**Total Pavement Thickness**	(Partial delamination above steel)
		No Base Course Noted	

Sta. 55+50 3' RT

Core 108:	1.5"	Bituminous Surface Course	
	1.5"	Bituminous Surface Course	
	1.3"	Bituminous Surface Course	
	0.8"	Bituminous Surface Course	(Not bonded to layer below)
	8.0"	Portland Cement Concrete	(3/16" dia steel 4½" below top of PCC)
	13"	**Total Asphalt Thickness**	
		No Base Course Noted	

Sta. 64+00 4' LT

Core 109:	1.5"	Bituminous Surface Course	
	1.6"	Bituminous Surface Course	(Not bonded to layer below)
	7.3"	Portland Cement Concrete	(3/16" dia steel 3¼" below top of PCC)
	10¼"	**Total Asphalt Thickness**	
		No Base Course Noted	

TESTING SERVICE CORPORATION

457 EAST GUNDERSEN DR. · CAROL STREAM, ILLINOIS 60188-2492 · FAX: (630) 653-2726 · TEL: (630) 653-3920

Subgrade Test Results

Date Tested
05/25/18
Job Number
L-87,999A
Page Number
1 of 2

Client: **Christopher B. Burke Engineering, Ltd.**
9575 West Higgins Road Suite 600
Rosemont, IL 60018-4920

Project: **Additional Pavement Coring**
Broadway Street Reconstruction
Sta. 15+00 to 71+08
Coal City, IL

Test Data

Location	Depth	Moisture (%)	Qp (tsf)	γ Dry (pcf)	Soil Description
Core 101 Sta. 18+25; 3' LT	1.0' - 2.3'	---	---	---	FILL - Dark brown SANDY LOAM, trace gravel, trace concrete pieces, damp A-4
	2.3' - 3.0'	---	---	---	Brown SANDY LOAM, damp A-4
Core 102 Sta. 23+50; 4' LT	1.1' - 2.7'	18.7	---	---	Dark brown sandy TOPSOIL, damp A-7-6
	2.7' - 3.0'	---	---	---	Brown SANDY LOAM, trace organic, damp A-4
Core 103 Sta. 28+00; 2' LT	1.1' - 2.6'	11.4	---	---	Dark brown sandy TOPSOIL, damp A-7-6
	2.6' - 3.0'	---	---	---	Brown SANDY LOAM, trace organic, damp A-4
Core 104 Sta. 33+00; 4' RT	1.0' - 3.0'	---	---	---	Dark brown SANDY LOAM, trace organic, damp A-4
Core 105 Sta. 42+00; 3' LT	0.8' - 2.4'	---	---	---	Dark brown SANDY LOAM, trace organic, damp A-4
	2.4' - 3.0'	---	---	---	Brown SAND, little silt, damp A-1-b
Core 106 Sta. 45+50; 4' RT	1.2' - 2.2'	13.4	---	---	Dark brown sandy TOPSOIL, damp A-7-6
	2.2' - 3.0'	---	---	---	Brown SANDY LOAM, damp A-4

Depth = Feet below top of pavement

Qp = Unconfined compressive strength in tons per square foot based on readings with a calibrated pocket penetrometer

Comments

Subgrade samples taken to approximately 3 feet below existing grade.

Field Technician(s)	Lab Technician	Reviewed By
J.J.M.	**P.J.T.**	**A.P.P.**

Subgrade Test Results

TESTING SERVICE CORPORATION

457 EAST GUNDERSEN DR. · CAROL STREAM, ILLINOIS 60188-2492 · FAX: (630) 653-2726 · TEL: (630) 653-3920

Date Tested
05/25/18
Job Number
L-87,999A
Page Number
2 of 2

Client: **Christopher B. Burke Engineering, Ltd.**
9575 West Higgins Road Suite 600
Rosemont, IL 60018-4920

Project: **Additional Pavement Coring**
Broadway Street Reconstruction
Sta. 15+00 to 71+08
Coal City, IL

Test Data

Location	Depth	Moisture (%)	Qp (tsf)	γ Dry (pcf)	Soil Description
Core 107 Sta. 51+50; 5' LT	1.0' - 1.3'	---	---	---	FILL - Brown SANDY LOAM, trace clay pockets, moist A-4
	1.3' - 3.0'	---	---	---	FILL - Black SANDY LOAM, trace organic, damp A-4
Core 108 Sta. 55+50; 3' RT	1.1' - 1.8'	---	---	---	FILL - Dark brown SANDY LOAM, trace clay pockets and organic, moist A-4
	1.8' - 3.0'	---	---	---	Dark brown SAND, little silt, damp A-1-b
Core 109 Sta. 64+00; 4' LT	0.9' - 1.3'	---	---	---	FILL - Dark brown SANDY LOAM, trace brick pieces, damp A-4
	1.3' - 3.0'	---	---	---	Brown SANDY LOAM, damp A-4

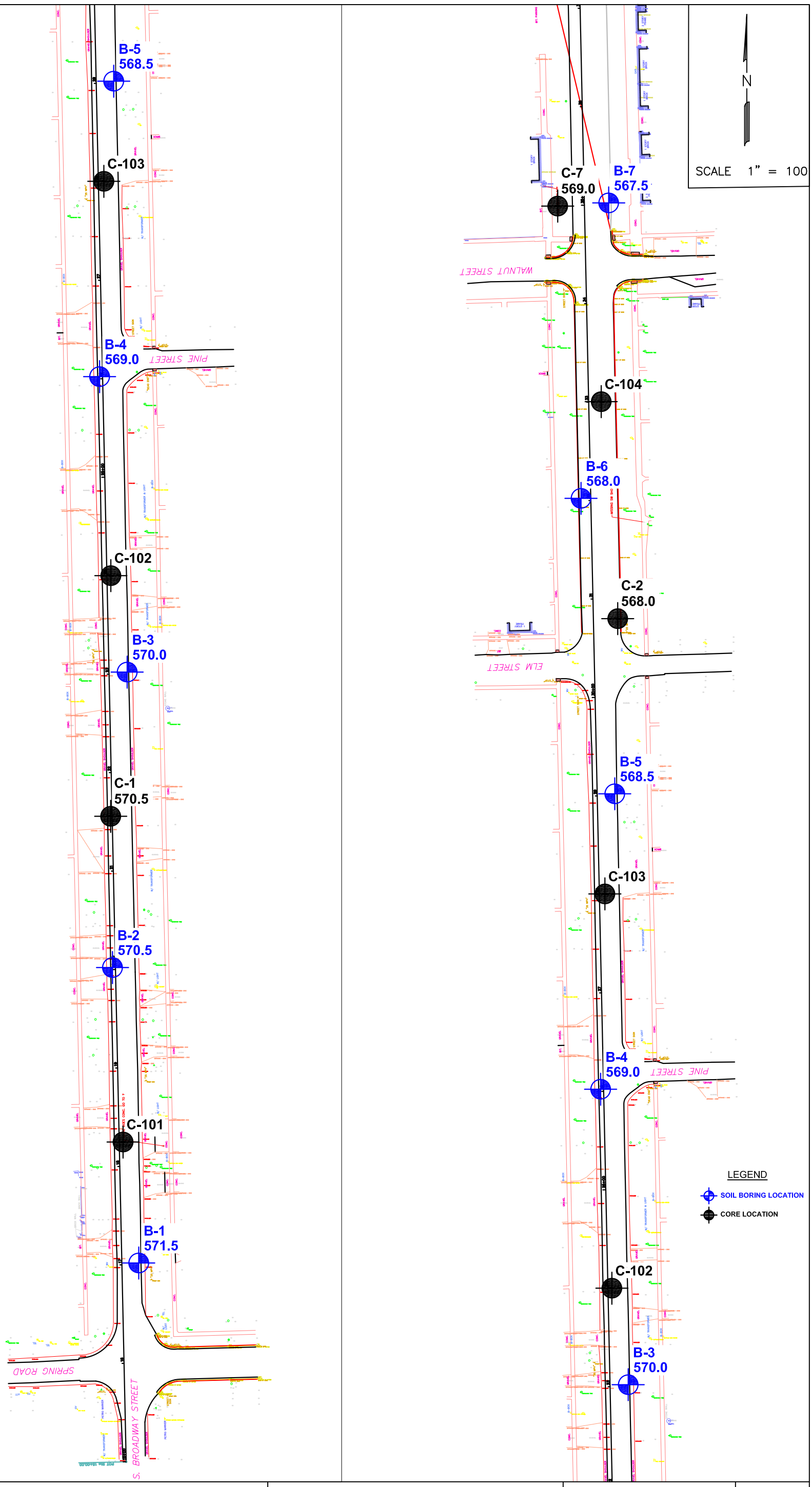
Depth = Feet below top of pavement

Qp = Unconfined compressive strength in tons per square foot based on readings with a calibrated pocket penetrometer

Comments

Subgrade samples taken to approximately 3 feet below existing grade.

Field Technician(s)	Lab Technician	Reviewed By
J.J.M.	**P.J.T.**	**A.P.P.**



BORING LOCATION PLAN
ROADWAY RECONSTRUCTION
BROADWAY STREET FROM SPRING ROAD TO IL 113
COAL CITY, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

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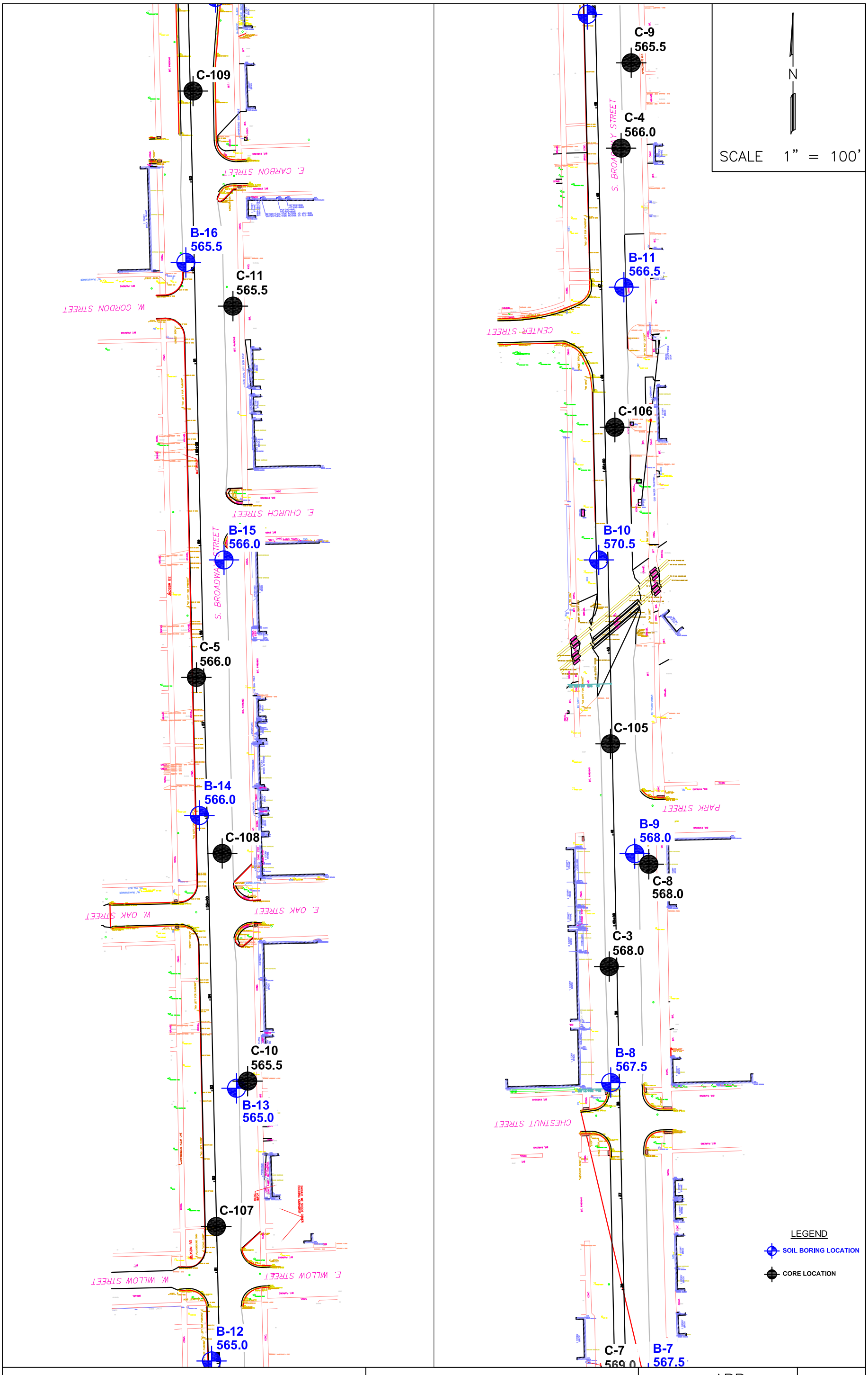

BORING LOCATION PLAN
ROADWAY RECONSTRUCTION
BROADWAY STREET FROM SPRING ROAD TO IL 113
COAL CITY, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

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DATE:	05-31-18

PAGE NO. 2 OF 2

Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663 Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Broadway Street Reconstruction Project Office Phone Number, if available: (815) 634-8608

Physical Site Location (address, inclduding number and street):

Broadway Street from E. Division Street to E. Park Street

City: Coal City State: IL Zip Code: 60416

County: Grundy Township: Braceville

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 48.28410 (Decimal Degrees) Longitude: -88.28531 (-Decimal Degrees)

Identify how the lat/long data were determined:

☐ GPS ☐ Map Interpolation ☐ Photo Interpolation ☒ Survey ☐ Other

ISGS Public Land Survey System. Lat/long above refer to the approximate center of the Project Area

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner		Site Operator	
Name:	Village of Coal City	Name:	Village of Coal City
Street Address:	515 South Broadway	Street Address:	515 South Broadway
PO Box:		PO Box:	
City:	Coal City State: IL	City:	Coal City State: IL
Zip Code:	60416 Phone: (815) 634-8608	Zip Code:	60416 Phone: (815) 634-8608
Contact:	Matthew Fritz, Village Administrator	Contact:	Matthew Fritz, Village Administrator
Email, if available:	mfritz@coalcity-il.gov	Email, if available:	mfritz@coalcity-il.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: Broadway Street Reconstruction Project

Latitude: 48.28410 Longitude: -88.28531

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

A database review was completed in the 2018 H&H PESA for the Project Area, which consists of municipal, residential, and commercial properties. Seventeen (17) potentially impacted properties (PIPs) were identified in connection with the Project Area through the database review and site visit. Refer to the attachments for additional information.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0,including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

27 soil borings were advanced within the Project Area on Sept. 26 and 27, 2018. Soil a samples were analyzed for one or more of the following: VOCs, BTEX/MTBE, PNAs, Total RCRA Metals, and pH. PNA or arsenic results exceeded MACs at SB-2, SB-11, SB-15,an SB-19. Remaining results achieve the CCDD requirements. Refer to the attachments for additional

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Jeremy J. Reynolds, P.G. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Huff & Huff, Inc.

Street Address: 915 Harger Rd Suite 330

City: Oak Brook State: IL Zip Code: 60523

Phone: (630) 684-9100

Jeremy J. Reynolds, P.G.
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

11/7/18
Date:

LICENSED PROFESSIONAL GEOLOGIST
JEREMY J. REYNOLDS
196-001170
EXP 3/19
ILLINOIS

P.E. or L.P.G. Seal:

Illinois Department of Transportation

Storm Water Pollution Prevention Plan

Route	FAS 301	Marked Rte.	Broadway Street
Section	14-00030-00-WR	Project No.	QI4M(212)
County	Grundy	Contract No.	87710

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

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

Matthew Fritz
Print Name

Village Administrator
Title

Village of Coal City
Agency

Signature

10/31/18
Date

I. Site Description:

A. Provide a description of the project location (include latitude and longitude):

This plan covers activities associated with the reconstruction of Broadway Street from Park Avenue to IL 113, Grundy County, Illinois.

Sections 2, 3, Township 32 North, Range 8 East of the Third Principal Meridian

Please see Sheet 1 of the improvement plans prepared by Christopher B. Burke Engineering for a site location map

Longitude: 88 16' 56"
Latitude: 41 17' 00"

B. Provide a description of the construction activity which is the subject of this plan:

The work consists of earth excavation, pavement, curb and gutter, and sidewalk removal, full-depth HMA pavement, concrete sidewalk, concrete curb and gutter, roadway lighting removal and replacement, brick pavers, sodding and top soil, earth excavation and landscaping.

C. Provide the estimated duration of this project:

4 months

D. The total area of the construction site is estimated to be 6.1 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 6.1 acres.

E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:

0.84

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

Soli borings and pavement cores are included in the special provisions.

G. Provide an aerial extent of wetland acreage at the site:

None

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

None

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

See Plans

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

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

Illinois Department of Transportation, Village of Coal CIty

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

Village of Coal City

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

Claypool Ditch

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

None

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

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

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

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

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

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

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

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

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

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

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

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

☒	Soil Sediment	☒	Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids)
☒	Concrete	☒	Antifreeze / Coolants
☒	Concrete Truck Waste	☒	Waste water from cleaning construction equipment
☒	Concrete Curing Compounds	☐	Other (specify)
☒	Solid Waste Debris	☐	Other (specify)
☐	Paints	☐	Other (specify)
☐	Solvents	☐	Other (specify)
☒	Fertilizers / Pesticides	☐	Other (specify)

II. Controls:

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

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

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

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

1. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.

2. On areas where construction activity has temporarily ceased and will resume after fourteen (14) days, a temporary stabilization method can be used.

The following stabilization practices will be used for this project:

☐ Preservation of Mature Vegetation	☐ Erosion Control Blanket / Mulching
☐ Vegetated Buffer Strips	☒ Sodding
☐ Protection of Trees	☐ Geotextiles
☐ Temporary Erosion Control Seeding	☐ Other (specify)
☐ Temporary Turf (Seeding, Class 7)	☐ Other (specify)
☐ Temporary Mulching	☐ Other (specify)
☐ Permanent Seeding	☐ Other (specify)

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

See plans

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

See plans

C.

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

The following structural practices will be used for this project:

☒ Perimeter Erosion Barrier	☐ Rock Outlet Protection
☐ Temporary Ditch Check	☐ Riprap
☒ Storm Drain Inlet Protection	☐ Gabions
☐ Sediment Trap	☐ Slope Mattress
☐ Temporary Pipe Slope Drain	☐ Retaining Walls
☐ Temporary Sediment Basin	☐ Slope Walls
☐ Temporary Stream Crossing	☐ Concrete Revetment Mats
☐ Stabilized Construction Exits	☐ Level Spreaders
☐ Turf Reinforcement Mats	☐ Other (specify)
☐ Permanent Check Dams	☐ Other (specify)
☐ Permanent Sediment Basin	☐ Other (specify)
☐ Aggregate Ditch	☐ Other (specify)
☐ Paved Ditch	☐ Other (specify)

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

Inlet protection shall be utilized throughout the duration of construction.

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

Once construction activity in an area has permanently ceased, temporary structural practices shall be removed after final stabilization of those portions of the site upward of the temporary structural practices. Permanent control measures shall be field verified for proper function and installation during active construction. Upon submittal on the NOT, permanent control measures will be monitored as part of the long term Maintenance and Monitoring Plan.

D. **Treatment Chemicals**

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

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

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

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

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

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

   Description of permanent storm water management controls:

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

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

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

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

- Approximate duration of the project, including each stage of the project
- Rainy season, dry season, and winter shutdown dates
- Temporary stabilization measures to be employed by contract phases
- Mobilization timeframe
- Mass clearing and grubbing/roadside clearing dates
- Deployment of Erosion Control Practices
- Deployment of Sediment Control Practices (including stabilized construction entrances/exits)
- Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
- Paving, saw-cutting, and any other pavement related operations
- Major planned stockpiling operations
- Timeframe for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.
- Permanent stabilization activities for each area of the project

2. The Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:

- Vehicle Entrances and Exits – Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
- Material Delivery, Storage and Use – Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
- Stockpile Management – Identify the location of both on-site and off-site stockpiles. Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
- Waste Disposal – Discuss methods of waste disposal that will be used for this project.
- Spill Prevention and Control – Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.)
- Concrete Residuals and Washout Wastes – Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
- Litter Management – Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
- Vehicle and Equipment Fueling – Identify equipment fueling locations for this project and what BMPs will be used to ensure containment and spill prevention.
- Vehicle and Equipment Cleaning and Maintenance – Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
- Dewatering Activities – Identify the controls which will be used during dewatering operations to ensure sediments will not leave the construction site.
- Polymer Flocculants and Treatment Chemicals – Identify the use and dosage of treatment chemicals and provide the Resident Engineer with Material Safety Data Sheets. Describe procedures on how the chemicals will be used and identify who will be responsible for the use and application of these chemicals. The selected individual must be trained on the established procedures.
- Additional measures indicated in the plan.

III. Maintenance:

When requested by the Contractor, the Resident Engineer will provide general maintenance guides to the Contractor for the practices associated with this project. The following additional procedures will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. It will be the Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

See Plans and Special Provisions.

A. Spill Prevention and Control – BMPs shall be implemented to contain and clean-up spills and prevent material discharges to the storm drain system. The contractor shall produce a written plan stating how his/her company will prevent, report, and clean up spills and provide a copy to all of his/her employees and the resident engineer. The contractor shall notify all of his/her employees on the proper protocol for reporting spills. The contractor shall notify the resident engineer of any spills immediately.

B. Vehicle and Equipment Cleaning – Vehicles and equipment are to be cleaned in designated areas only, preferably off site.

C. Vehicle and Equipment Fueling – A variety of BMPs may be implemented during fueling of vehicles and equipment to prevent pollution. The contractor shall inform the resident engineer as to which BMPs will be used on the project. The contractor shall inform the resident engineer how (s)he will be informing his/her employees of these BMPs (i.e. signs, training, etc.). Below are a few examples of these BMPs:

- Containment
- Spill Prevention and Control
- Use of Drip Pans and Absorbents
- Automatic Shut-Off Nozzles
- Topping Off Restrictions
- Leak Inspection and Repair

D. Vehicle and Equipment Maintenance – On site maintenance must be performed in accordance with all environmental laws such as proper storage and no dumping of old engine oil or other fluids on site. When not in use, vehicles utilized in the site preparation operations of the site shall be stored in a designated area outside of the regulatory floodplain, away from any natural or created watercourse, pond, drainage-way or storm drain. Vehicle maintenance (including both routine maintenance as well as on-site repairs) shall be made within a designated containment area to prevent the migration of mechanical fluids (oil, antifreeze, etc.) into watercourses, wetlands or storm drains. Drip pans or absorbent pads shall be used for all vehicle and equipment maintenance activities that involve grease, oil, solvents, or other vehicle fluids. Construction vehicles shall be inspected frequently to identify any leaks; leaks shall be repaired immediately or the vehicle shall be removed from site. Dispose of all used oil, antifreeze, solvents and other vehicle-related chemicals in accordance with USEPA and IEPA regulations and per MSDS and/or manufacturer instructions.

E. To the extent practicable, portable sanitary stations shall be located in an area that does not drain to any protected natural areas, Waters of the State, or storm water structures and shall be anchored to the ground to prevent from tipping over. Portable sanitary stations located on impervious surfaces shall be placed on top of a secondary containment device, or be surrounded by a control device (e.g., gravel-bag berm). Sanitary waste shall be disposed of in accordance with applicable State and/or local regulations.

F. Catch Basin and Inlet Filters: Inlet filters shall be inspected for proper filtering. If filter bags are used, remove sediment from the filter bags when 50% percent of the storage volume has been filled, unless otherwise instructed by the manufacturer. Remove trash and debris during inspections. Accumulated material in the filters shall be disposed of properly. Do not puncture holes in filters if ponding occurs.

G. Concrete Washout Faciities: Concrete waste or washout shall not be allowed in the street or allowed to reach a storm water drainage system or watercourse. Concrete washout shall be contained and completed in a location designated by the RE. Concrete washout containment facilities shall be of sufficient volume to completely contain all liquid and concrete waste materials including enough capacity for anticipated levels of rainwater. Designated washout areas shall be lined with a 30-mil impermeable membrane. The dried concrete waste material shall be picked up and disposed of properly when two-thirds capacity is reached. Hardened concrete can be properly recycled and used again on site (as approved by the RE) or hauled off site to an appropriate landfill.

H. Management of Landscape Products: Herbicides, pesticides, and fertilizers will be stored in a secure location, away from any storm inlets or watercourses. The use of pesticides will be minimized in and near the storm drainage system or watercourses. The use of all pesticides will be recorded. Only the type and quantity of fertilizer or other soil amendment needed will be applied, based on the fertility of the soil and the type of vegetation. Landscaping stockpiles, including mulch, bark, topsoil, and other materials shall be stored in a secure location away from storm inlets or watercourses.

I. Dust Control: Dust constrols shall be implemented on site as necessary. Repetitive treatment shall be applied as needed to accomplish control when temporary dust control measures are used. A water truck shall be present on site (or available) for sprinkling/irrigation to limit the amount of dust leaving the site. Watering shall be applied daily (or more frequently) to be effective. Caution shall be used not to overwater, as that may cause erosion. If field observations indicate that additional protection from wind erosion (in addition to, or in place of watering) is necessary, alternative dust suppressant controls shall be implemented at the discretion and approval of the RE.

IV. Inspections:

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

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

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

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

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

Additional Inspections Required:

V. Failure to Comply:

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

Illinois Department of Transportation

Contractor Certification Statement

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

Route	FAS 288	Marked Rte.	Broadway Street
Section	14-00030-00-WR	Project No.	QI4M(212)
County	Grundy	Contract No.	87710

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

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

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

☐ Contractor

☐ Sub-Contractor

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

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

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

SPECIAL PROVISION FOR INSURANCE

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

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

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

_____

_____

_____

_____

_____

_____

_____

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

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 (TPG)

Effective: August 1, 2012 Revised: February 1, 2014

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

It is the policy of IDOT to fund IDOT pre-apprenticeship training programs throughout Illinois to provide training and skill-improvement opportunities to assure the increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The intent of this IDOT Training Program Graduate (TPG) Special Provision is to place certified graduates of these IDOT funded pre-apprentice training programs on IDOT project sites when feasible, and provide the graduates with meaningful on-the-job training intended to lead to journey-level employment. IDOT and its sub-recipients, in carrying out the responsibilities of a state contract, shall determine which construction contracts shall include "Training Program Graduate Special Provisions." To benefit from the incentives to encourage the participation in the additional on-the-job training under this Training Program Graduate Special Provision, the Contractor shall make every reasonable effort to employ certified graduates of IDOT funded Pre-apprenticeship Training Programs to the extent such persons are available within a reasonable recruitment area.

Participation pursuant to IDOT's requirements by the Contractor or subcontractor in this Training Program Graduate (TPG) Special Provision entitles the Contractor or subcontractor to be reimbursed at $15.00 per hour for training given a certified TPG on this contract. As approved by the Department, reimbursement will be made for training persons as specified herein. This reimbursement will be made even though the Contractor or subcontractor may receive additional training program funds from other sources for other trainees, provided such other source does not specifically prohibit the Contractor or subcontractor from receiving other reimbursement. For purposes of this Special Provision the Contractor is not relieved of requirements under applicable federal law, the Illinois Prevailing Wage Act, and is not eligible for other training fund reimbursements in addition to the Training Program Graduate (TPG) Special Provision reimbursement.

No payment shall be made to the Contractor if the Contractor or subcontractor fails to provide the required training. It is normally expected that a TPG will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project through completion of the contract, so long as training opportunities exist in his work classification or until he has completed his training program. Should the TPG's employment end in advance of the completion of the contract, the Contractor shall promptly notify the designated IDOT staff member under this Special Provision that the TPG's involvement in the contract has ended and supply a written report of the reason for the end of the involvement, the hours completed by the TPG under 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 TPG.

The Contractor will provide for the maintenance of records and furnish periodic reports documenting its performance under this 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 $15.00 per hour for certified TRAINEES TRAINING PROGRAM GRADUATE. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

The Contractor shall provide training opportunities aimed at developing full journeyworker in the type of trade or job classification involved. The initial number of TPGs for which the incentive is available under this contract is 2 . During the course of performance of the Contract the Contractor may seek approval from the Department for additional incentive eligible TPGs. In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the TPGs 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 Program Graduate Special Provision is made applicable to such subcontract if the TPGs are to be trained by a subcontractor and that the incentive payment is passed on to each subcontractor.

For the Contractor to meet the obligations for participation in this TPG incentive program under this Special Provision, the Department has contracted with several entities to provide screening, tutoring and pre-training to individuals interested in working in the applicable construction classification and has certified those students who have successfully completed the program and are eligible to be TPGs. A designated IDOT staff member, the Director of the Office of Business and Workforce Diversity (OBWD), will be responsible for providing assistance and referrals to the Contractor for the applicable TPGs. For this contract, the Director of OBWD is designated as the responsible IDOT staff member to provide the assistance and referral services related to the placement for this Special Provision. For purposes of this Contract, contacting the Director of OBWD and interviewing each candidate he/she recommends constitutes reasonable recruitment.

Prior to commencing construction, the Contractor shall submit to the Department for approval the TPGs to be trained in each selected classification. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. No employee shall be employed as a TPG in any classification in which he/she has successfully completed a training course leading to journeyman status or in which he/she has been employed as a journeyman. Notwithstanding the on-the-job training purpose of this TPG Special Provision, some offsite training is permissible as long as the offsite training is an integral part of the work of the contract and does not comprise a significant part of the overall training.

Training and upgrading of TPGs of IDOT pre-apprentice training programs is intended to move said TPGs toward journeyman status and is the primary objective of this Training Program Graduate Special Provision. Accordingly, the Contractor shall make every effort to enroll TPGs by recruitment through the IDOT funded TPG programs to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance and entitled to the Training Program Graduate Special Provision $15.00 an hour incentive.

The Contractor or subcontractor shall provide each TPG with a certificate showing the type and length of training satisfactorily completed.

AGGREGATE SUBGRADE IMPROVEMENT (BDE)

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

Add the following Section to the Standard Specifications:

"SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

303.01 Description. This work shall consist of constructing an aggregate subgrade improvement.

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.07
(b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2, and 3)	1031

Note 1. Crushed RAP, from either full depth or single lift removal, may be mechanically blended with aggregate gradations CS 01, CS 02, and RR 01 but shall not exceed 40 percent of the total product. The top size of the RAP shall be less than 4 in. (100 mm) and well graded.

Note 2. RAP having 100 percent passing the 1 1/2 in. (37.5 mm) sieve and being well graded, may be used as capping aggregate in the top 3 in. (75 mm) when aggregate gradations CS 01, CS 02, or RR 01 are used in lower lifts.

Note 3. The RAP used for aggregate subgrade improvement shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".

303.03 Equipment. The vibratory machine shall be according to Article 1101.01, or as approved by the Engineer.

303.04 Soil Preparation. The stability of the soil shall be according to the Department's Subgrade Stability Manual for the aggregate thickness specified.

303.05 Placing Aggregate. The maximum nominal lift thickness of aggregate gradations CA 02, CA 06, or CA 10 shall be 12 in. (300 mm). The maximum nominal lift thickness of aggregate gradations CS 01, CS 02, and RR 01 shall be 24 in. (600 mm).

303.06 Capping Aggregate. The top surface of the aggregate subgrade shall consist of a minimum 3 in. (75 mm) of aggregate gradations CA 06 or CA 10. When the contract specifies that a granular subbase is to be placed on the aggregate subgrade improvement, the 3 in. (75 mm) of capping aggregate shall be the same gradation and may be placed with the underlying aggregate subgrade improvement material.

303.07 Compaction. All aggregate lifts shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

303.08 Finishing and Maintenance of Aggregate Subgrade Improvement. The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

303.09 Method of Measurement. This work will be measured for payment according to Article 311.08.

303.10 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) or ton (metric ton) for AGGREGATE SUBGRADE IMPROVEMENT or at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified."

Add the following to Section 1004 of the Standard Specifications:

"**1004.07 Coarse Aggregate for Aggregate Subgrade Improvement.** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete. In applications where greater than 24 in. (600 mm) of subgrade material is required, gravel may be used below the first 12 in (300 mm) of subgrade.

(b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.

(c) Gradation.

(1) The coarse aggregate gradation for total subgrade thickness less than or equal to 12 in. (300 mm) shall be CA 2, CA 6, CA 10, or CS 01.

The coarse aggregate gradation for total subgrade thickness more than 12 in. (300 mm) shall be CS 01 or CS 02 as shown below or RR 01 according to Article 1005.01(c).

	COARSE AGGREGATE SUBGRADE GRADATIONS				
Grad No.	Sieve Size and Percent Passing				
	8"	6"	4"	2"	#4
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

	COARSE AGGREGATE SUBGRADE GRADATIONS (Metric)

Grad No.	Sieve Size and Percent Passing				
	200 mm	150 mm	100 mm	50 mm	4.75 mm
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

(2) The 3 in. (75 mm) capping aggregate shall be gradation CA 6 or CA 10."

80274

BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE)

Effective: November 2, 2006
Revised: August 1, 2017

Description. Bituminous material cost adjustments will be made to provide additional compensation to the Contractor, or credit to the Department, for fluctuations in the cost of bituminous materials when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract.

The adjustments shall apply to permanent and temporary hot-mix asphalt (HMA) mixtures, bituminous surface treatments (cover and seal coats), and preventative maintenance type surface treatments that are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply to bituminous prime coats, tack coats, crack filling/sealing, joint filling/sealing, or extra work paid for at a lump sum price or by force account.

Method of Adjustment. Bituminous materials cost adjustments will be computed as follows.

$CA = (BPI_P - BPI_L) \times (\%AC_V / 100) \times Q$

Where: CA = Cost Adjustment, $.
BPI_P = Bituminous Price Index, as published by the Department for the month the work is performed, $/ton ($/metric ton).
BPI_L = Bituminous Price Index, as published by the Department for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price, $/ton ($/metric ton).
$\%AC_V$ = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC_V will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC_V and undiluted emulsified asphalt will be considered to be 65% AC_V.
Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: Q, tons = A x D x (G_{mb} x 46.8) / 2000. For HMA mixtures measured in square meters: Q, metric tons = A x D x (G_{mb} x 1) / 1000. When computing adjustments for full-depth HMA pavement, separate calculations will be made for the binder and surface courses to account for their different G_{mb} and % AC_V.

For bituminous materials measured in gallons: Q, tons = V x 8.33 lb/gal x SG / 2000
For bituminous materials measured in liters: Q, metric tons = V x 1.0 kg/L x SG / 1000

Where: A = Area of the HMA mixture, sq yd (sq m).
D = Depth of the HMA mixture, in. (mm).
G_{mb} = Average bulk specific gravity of the mixture, from the approved mix design.

V = Volume of the bituminous material, gal (L).
SG = Specific Gravity of bituminous material as shown on the bill of lading.

Basis of Payment. Bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the BPI_L and BPI_P in excess of five percent, as calculated by:

Percent Difference = $\{(BPI_L - BPI_P) \div BPI_L\} \times 100$

Bituminous materials cost adjustments will be calculated for each calendar month in which applicable bituminous material is placed; and will be paid or deducted when all other contract requirements for the work placed during the month are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

80173

COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017

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

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

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

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

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

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

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

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

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

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

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the Contractor's yard or another job and the cost to re-mobilize, whichever is less.

Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Add the following to Section 109 of the Standard Specifications.

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

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

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

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

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

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

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

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

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

(c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid. For working day contracts the payment will be made according to Article 109.04. For completion date contracts, an adjustment will be determined as follows.

Extended Traffic Control occurs between April 1 and November 30:

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

Extended Traffic Control occurs between December 1 and March 31:

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

Where: TE = Duration of approved time extension in calendar days.
% = Percent maintenance for the traffic control, % (see table below).
CUP = Contract unit price for the traffic control pay item in place during the delay.
OCT = Original contract time in calendar days.

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

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

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

80384

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000
Revised: January 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 that the Contractor signs with a subcontractor.

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

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

companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. The determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 7.00 % 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 that enough DBE participation has been obtained to meet the goal or,

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

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 required prior to the award of the contract and failure of the low bidder to comply will render the bid not responsive.

(a) The low 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, within five calendar days after the date of the letting. To meet the five-day requirement, the bidder must submit the required forms as a single .pdf file using the Department's "Vendor Portal".

The Department will not accept the 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. The Department reserves the right to invite any other bidder to submit a Utilization Plan at any time for award consideration.

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

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

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

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

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

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

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable. In accordance with subsection (c)(6) of the above Bidding Procedures, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

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

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

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

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

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

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

(c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217) 785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. A request may provide additional written documentation or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of documentation and whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

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 prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.

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

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

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

(e) DBE as a material supplier:

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

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

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

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

shall be performed, managed, and supervised by the DBE executing the DBE Participation Commitment Statement.

(a) 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 submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.

(b) 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, than a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

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

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

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

(3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall

substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.

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

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

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

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

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

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

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

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

(6) You have determined that the listed DBE subcontractor is not a responsible contractor;

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

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

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

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

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

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

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

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

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 - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE)

Effective: January 1, 2010
Revised: August 1, 2018

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

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

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

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

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

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

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

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

"Mixture Composition	Parameter	Individual Test (includes confined edges)	Unconfined Edge Joint Density Minimum
IL-4.75	Ndesign = 50	93.0 – 97.4% [1/]	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 & 80	93.5 – 97.4%	91.0%”

80246

HOT-MIX ASPHALT – OSCILLATORY ROLLER (BDE)

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

Add the following to Article 406.03 of the Standard Specifications:

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

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
Level Binder: (When the density requirements of Article 406.05(c) do not apply.)	P 3/	- -	V_S, P 3/, T_B, T_F, 3W, O_T	To the satisfaction of the Engineer.
Binder and Surface 1/ Level Binder 1/: (When the density requirements of Article 406.05(c) apply.)	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)."

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)48 in. (1200 mm);

(2) The minimum length of the drum(s) shall be 57 in. (1480 mm)66 in. (1650 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)."; and

(5) Self-adjusting eccentrics, and reversible eccentrics on non-driven drum(s)."

80399

HOT-MIX ASPHALT – TACK COAT (BDE)

Effective: November 1, 2016

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

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

80376

LIGHTS ON BARRICADES (BDE)

Effective: January 1, 2018

Revise Article 701.16 of the Standard Specifications to read:

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

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

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

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

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

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

80392

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

Effective: January 1, 2018
Revised: January 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 January 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	602401-04 or 602401-03
Precast Manhole Type A, 5' (1.52 m) Diameter	602402 or 602401-03
Precast Manhole Type A, 6' (1.83 m) Diameter	602406-08 or 602406-07
Precast Manhole Type A, 7' (2.13 m) Diameter	602411-06 or 602411-05
Precast Manhole Type A, 8' (2.44 m) Diameter	602416-06 or 602416-05
Precast Manhole Type A, 9' (2.74 m) Diameter	602421-06 or 602421-05
Precast Manhole Type A, 10' (3.05 m) Diameter	602426
Precast Valve Vault Type A, 4' (1.22 m) Diameter	602501-03 or 602501-02
Precast Valve Vault Type A, 5' (1.52 m) Diameter	602506 or 602501-02
Precast Reinforced Concrete Flat Slab Top	602601-05 or 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 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

PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: November 2, 2017

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

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

80390

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

PROGRESS PAYMENTS (BDE)

Effective: November 2, 2013

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

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

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

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

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

80328

RAILROAD PROTECTIVE LIABILITY INSURANCE (5 and 10) (BDE)

Effective: January 1, 2006

Description. Railroad Protective Liability and Property Damage Liability Insurance shall be carried according to Article 107.11 of the Standard Specifications, except the limits shall be a minimum of $5,000,000 combined single limit per occurrence for bodily injury liability and property damage liability with an aggregate limit of $10,000,000 over the life of the policy. A separate policy is required for each railroad unless otherwise noted.

NAMED INSURED & ADDRESS	NUMBER & SPEED OF PASSENGER TRAINS	NUMBER & SPEED OF FREIGHT TRAINS
BNSF RAILWAY COMPANY 2650 Lou Menk Drive Fort Worth, TX 76131-2830	0	27 @ 50 mph

DOT/AAR No.: 004 406X
RR Mile Post: 58.60
RR Division: Chicago
RR Sub-Division: Chillicothe

For Freight/Passenger Information Contact: Brian Soyk Phone: (630) 692-6295
For Insurance Information Contact: Rosa Martinez, Marsh Co. Phone: (214) 303-8519

DOT/AAR No.:
RR Mile Post:
RR Division:
RR Sub-Division:

For Freight/Passenger Information Contact: Phone:
For Insurance Information Contact: Phone:

Approval of Insurance. The original and one certified copy of each required policy shall be submitted to the following address for approval:

Illinois Department of Transportation
Bureau of Design and Environment
2300 South Dirksen Parkway, Room 326
Springfield, Illinois 62764

The Contractor will be advised when the Department has received approval of the insurance from the railroad(s). Before any work begins on railroad right-of-way, the Contractor shall submit to the Engineer evidence that the required insurance has been approved by the railroad(s). The Contractor shall also provide the Engineer with the expiration date of each required policy.

Basis of Payment. Providing Railroad Protective Liability and Property Damage Liability Insurance will be paid for at the contract unit price per Lump Sum for RAILROAD PROTECTIVE LIABILITY INSURANCE.

80157

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

Effective: November 1, 2012
Revise: January 1, 2019

Revise Section 1031 of the Standard Specifications to read:

"**SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES**

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

(a) Reclaimed Asphalt Pavement (RAP). RAP is the material produced by cold milling or crushing an existing hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.

(b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Central Bureau of Materials Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Central Bureau of Materials approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 93 percent passing the #4 (4.75 mm) sieve based on a dry shake gradation. RAS shall be uniform in gradation and asphalt binder content and shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.

(1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.

(2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

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

(a) RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type as listed below (i.e. "Homogeneous Surface").

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

(1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality, but shall be at least C quality. All FRAP shall be fractionated prior to testing by screening into a minimum of two size fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP shall pass the sieve size specified below for the mix into which the FRAP will be incorporated.

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

(2) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures and represent: 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogeneous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.

(3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality, but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag.

(4) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

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

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

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

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

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

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

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

(1) During Stockpiling. For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

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

Each sample shall be split to obtain two equal samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

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

Samples shall be collected during stockpiling at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 250 tons (225 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a ≤ 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 Max RAP/RAS ABR table listed below for the given Ndesign.

RAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures 1/, 2/	RAP/RAS Maximum ABR %		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	30	30	10
50	25	15	10
70	15	10	10
90	10	10	10

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

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

(2) FRAP/RAS. When FRAP is used alone or FRAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the FRAP/RAS table listed below for the given Ndesign.

FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

HMA Mixtures 1/, 2/	FRAP/RAS Maximum ABR %					
Ndesign	Binder/Leveling Binder		Surface		Polymer Modified	
	w/o I-FIT	with I-FIT	w/o I-FIT	with I-FIT	w/o I-FIT	with I-FIT
30	50	55	40	45	10	15
50	40	45	35	40	10	15
70	40	45	30	35	10	15
90	40	45	30	35	10	15
SMA	- -	- -	- -	- -	20	25
IL-4.75	- -	- -	- -	- -	30	35

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

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

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 contaminated soil and groundwater. This work shall also consist of the removal, transportation, and proper disposal of underground storage tanks (UST), their content 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. Prior to beginning this work, or working in areas with regulated substances, the Contractor shall submit a Regulated Substance 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 qualifications of Contractor(s) or firm(s) performing the following work shall be listed.

(a) On-Site Monitoring. Qualification for on-site monitoring of regulated substance work and on-site monitoring of UST removal requires either pre-qualification in Hazardous Waste by the Department or demonstration of acceptable project experience in remediation and special waste operations for contaminated sites in accordance with applicable Federal, State, or local regulatory requirements.

Qualification for each individual performing on-site monitoring requires a minimum of one-year of experience in similar activities as those required for the project.

(b) Underground Storage Tank. Qualification for underground storage tank (UST) work requires 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 30 calendar days for review of the RSPCP. The review may involve rejection or revision and resubmittal; in which case, an additional 30 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.

CONSTRUCTION REQUIREMENTS

669.04 Contaminated Soil and/or Groundwater Monitoring. Prior to beginning excavation, the Contractor shall mark the limits of removal for approval by the Engineer. Once excavation begins, the work and work area involving regulated substances shall be monitored by qualified personnel. The qualified personnel shall be on-site continuously during excavation and loading of material containing regulated substances. The qualified personnel shall be equipped 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 volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs). The PID or FID meter shall be calibrated on-site and background level readings taken and recorded daily, and as field and weather conditions change. Any field screen reading on the PID or FID in excess of background levels indicates the potential presence of contaminated material 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.

The qualified personnel shall document field activities using form BDE 2732 (Regulated Substances Monitoring Daily Record) including the name(s) of personnel conducting the monitoring, weather conditions, PID or FID calibration records, a list of equipment used on-site, a narrative of activities completed, photo log sheets, manifests and landfill tickets, monitoring results, how regulated substances were managed and other pertinent information.

Samples will be collected in accordance with the RSPCP. Samples shall be analyzed for the contaminants of concern (COCs), including pH, based on the property's land use history, the encountered abnormality and/or the parameters listed in the maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Ill. Adm. Code 1100.605. The analytical results shall serve to document the level of contamination.

Samples shall be grab samples (not combined with other locations). The samples shall be taken with decontaminated or disposable instruments. The samples shall be placed in sealed containers and transported in an insulated container to the laboratory. The container shall maintain a temperature of 39 °F (4 °C). All samples shall be clearly labeled. The labels shall indicate the sample number, date sampled, collection location and depth, and any other relevant observations.

The laboratory shall use analytical methods which are able to meet the lowest appropriate practical quantitation limits (PQL) or estimated quantitation limit (EQL) specified in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", EPA Publication No. SW-846; "Methods for the Determination of Organic Compounds in Drinking Water", EPA, EMSL, EPA-600/4-88/039; and “Methods for the Determination of Organic Compounds in Drinking Water, Supplement III”, EPA 600/R-95/131, August 1995. For parameters where the specified cleanup objective is below the acceptable detection limit (ADL), the ADL shall serve as the cleanup objective. For other parameters the ADL shall be equal to or below the specified cleanup objective.

669.05 Contaminated Soil and/or Groundwater Management and Disposal. The management and disposal of contaminated soil and/or groundwater shall be according to the following:

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

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

(2) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as “uncontaminated soil” 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 construction limits as fill, when suitable, or managed and disposed of off-site as “uncontaminated soil” 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 construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" 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, the soil shall be managed and disposed of off-site as a non-special waste, 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 construction limits or managed and disposed off-site as "uncontaminated soil" 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 IAC 742 Appendix B Table A, the excavated soil can be utilized within the right-of-way or managed and disposed off-site as "uncontaminated soil" 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 Illinois Administrative 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. The 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 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 sewer.

All 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 must be removed as a special or hazardous waste. The Contractor is

prohibited from managing groundwater within the trench by discharging it through any existing or new 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 be responsible for transporting and disposing all material classified as a non-special waste, special waste, or hazardous waste from the job site to an appropriately permitted landfill facility. The transporter and the vehicles used for transportation shall comply with all federal, state, and local rules and regulations governing the transportation of non-special waste, special waste, or hazardous waste.

All equipment used by the Contractor to haul contaminated material to the landfill facility shall be lined with a 6 mil (150 micron) polyethylene liner and securely covered during transportation. The Contractor shall obtain all documentation including any permits and/or licenses required to transport the contaminated material to the disposal facility.

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 Engineer shall coordinate with the Contractor on the completion of all documentation. The Contractor shall make all arrangements for collection and analysis of landfill acceptance testing. The Contractor shall coordinate for waste disposal approval with the disposal facility. After the Contractor completes these activities and upon receipt of authorization from the Engineer, the Contractor shall initiate the disposal process.

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

The Contractor shall schedule and arrange the transport and disposal of each load of contaminated material produced. The Contractor shall make all transport and disposal arrangements so no contaminated material remains within the project area at the close of business each day. Exceptions to this specification require prior approval from the Engineer within 24 hours of close of business. The Contractor shall be responsible for all other pre-disposal/transport preparations necessary daily to accomplish management activities.

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. 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 mandated by definition 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 definition of the contaminant 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 Contractor shall be responsible for coordinating permits with the IEPA. 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 IAC 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 IAC 811.107;

(4) a regulated asbestos-containing waste material, as defined under the National Emission Standards for Hazardous Air Pollutants in 40 CFR 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 IAC 728.107 under land disposal restrictions of 35 IAC 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. The Contractor shall excavate and dispose of all waste material as mandated by the contaminants without temporary staging. If circumstances require temporary staging, he/she shall request in writing, approval from the Engineer.

When approved, the Contractor shall prepare a secure location within the project area capable of housing containerized waste materials. The Contractor shall contain all waste material in leak-proof storage containers such as lined roll-off boxes or 55 gal (208 L) drums, or stored in bulk fashion on storage pads. The design and construction of such storage pad(s) for bulk materials shall be subject to approval by the Engineer. The Contractor shall place the staged storage containers on an all-weather gravel-packed, asphalt, or concrete surface. The Contractor shall maintain a clearance both above and beside the storage units to provide maneuverability during loading and unloading. The Contractor shall provide any assistance or equipment requested by the Engineer for authorized personnel to inspect and/or sample contents of each storage container. All containers and their contents shall remain intact and undisturbed by unauthorized persons until the manner of disposal is determined. The Contractor shall keep the storage containers covered, except when access is requested by authorized personnel of the Department. The Engineer shall authorize any additional material added to the contents of any storage container before being filled.

The Contractor shall ensure the staging area is enclosed (by a fence or other structure) to ensure direct access to the area is restricted, and he/she shall procure and place all required regulatory identification signs applicable to an area containing the waste material. 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 clearly mark all containers in permanent marker or paint with the date of waste generation, location and/or area of waste generation, and type of waste (e.g., decontamination water, contaminated clothing, etc.). The Contractor shall place these identifying markings on an exterior side surface of the container. The Contractor shall separately containerize each contaminated medium, i.e. contaminated clothing is placed in a separate container from decontamination water. Containers used to store liquids shall not be filled in excess of 80 percent of the rated capacity. 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 classify the material as a hazardous waste in the container.

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.

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 all 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. Adm. 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. Adm. 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 DESU. Upon confirmation of a release of contaminants from the UST 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 UST 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 UST excavation zone and entered into subsurface structures (such as sewers or basements).

The UST excavation shall be backfilled according to applicable portions of Sections 205, 208, and 550 with a material that will compact and develop stability. The material shall be approved prior to placement. 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 Substance Final Construction Report. Not later than 90 days after completing this work, the Contractor shall submit a Regulated Substance 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.

On-site monitoring of regulated substances, including completion of form BDE 2732 for each day of work, will be paid for at the contract unit price per calendar day, or faction thereof, for ON-SITE MONITORING OF REGULATED SUBSTANCES.

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 removing a UST, soil excavation, soil and content sampling, and the excavated soil, 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, if required, will be paid for according to Article 109.04.

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.

The sampling and testing associated with this work will be paid for as follows.

(a) BETX Soil/Groundwater Analysis. When the contaminants of concern are gasoline only, soil or groundwater samples shall be analyzed for benzene, ethylbenzene, toluene, and xylenes (BETX). The analysis will be paid for at the contract unit price per each for BETX SOIL ANALYSIS and/or BETX GROUNDWATER ANALYSIS using EPA Method 8021B.

(b) BETX-PNAS Soil/Groundwater Analysis. When the contaminants of concern are middle distillate and heavy ends, soil or groundwater samples shall be analyzed for BETX and polynuclear aromatics (PNAS). The analysis will be paid for at the contract unit price per each for BETX-PNAS SOIL ANALYSIS and/or BETX-PNAS GROUNDWATER ANALYSIS using EPA Method 8021B for BETX and EPA Method 8310 for PNAs.

(c) Priority Pollutants Soil Analysis. When the contaminants of concern are used oils, soil samples shall be analyzed for priority pollutant VOCs, priority pollutants SVOCs, and priority pollutants metals. The analysis will be paid for at the contract unit price per each for PRIORITY POLLUTANTS SOIL ANALYSIS using EPA Method 8260B for VOCs, EPA Method 8270C for SVOCs, and using an ICP instrument and EPA Methods 6010B and 7471A for metals.

(d) Priority Pollutant Groundwater Analysis. When the contaminants of concern are used oils, non-petroleum material, or unknowns, groundwater samples shall be analyzed for priority pollutant VOCs, priority pollutants SVOCs, and priority pollutants metals. The analysis will be paid for at the contract unit price per each for PRIORITY POLLUTANTS GROUNDWATER ANALYSIS using EPA Method 8260B for VOCs, EPA Method 8270C for SVOCs, and EPA Methods 6010B and 7470A for metals.

(e) Target Compound List (TCL) Soil Analysis. When the contaminants of concern are unknowns or non-petroleum material, soil samples shall be analyzed for priority pollutant VOCs, priority pollutants SVOCS, priority pollutants metals, pesticides, and Resource Conservation and Recovery Act (RCRA) metals by the toxicity characteristic leaching procedure (TCLP). The analysis will be paid for at the contract unit price per each for TCL SOIL ANALYSIS using EPA Method 8260B for VOCs, EPA Method 8270C for SVOCs,

EPA Method 8081 for pesticides, and ICP instrument and EPA Methods 6010B, 7471A, 1311 (extraction), 6010B, and 7470A for metals.

(f) Soil Disposal Analysis. When the waste material for disposal requires sampling for 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

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 MOBILILATION PAYMENTS (BDE)

Effective: November 2, 2017

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

"This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be at the following percentage of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

Value of Subcontract Reported on Form BC 260A	Mobilization Percentage
Less than $10,000	25%
$10,000 to less than $20,000	20%
$20,000 to less than $40,000	18%
$40,000 to less than $60,000	16%
$60,000 to less than $80,000	14%
$80,000 to less than $100,000	12%
$100,000 to less than $250,000	10%
$250,000 to less than $500,000	9%
$500,000 to $750,000	8%
Over $750,000	7%"

80391

TEMPORARY PAVEMENT MARKING (BDE)

Effective: April 1, 2012
Revised: April 1, 2017

Revise Article 703.02 of the Standard Specifications to read:

"**703.02 Materials.** Materials shall be according to the following.

(a) Pavement Marking Tape, Type I and Type III 1095.06
(b) Paint Pavement Markings 1095.02
(c) Pavement Marking Tape, Type IV ..... 1095.11"

Revise the second paragraph of Article 703.05 of the Standard Specifications to read:

"Type I marking tape or paint shall be used at the option of the Contractor, except paint shall not be applied to the final wearing surface unless authorized by the Engineer for late season applications where tape adhesion would be a problem. Type III or Type IV marking tape shall be used on the final wearing surface when the temporary pavement marking will conflict with the permanent pavement marking such as on tapers, crossovers and lane shifts."

Revise Article 703.07 of the Standard Specifications to read:

"**703.07 Basis of Payment.** This work will be paid for as follows.

a) Short Term Pavement Marking. Short term pavement marking will be paid for at the contract unit price per foot (meter) for SHORT TERM PAVEMENT MARKING. Removal of short term pavement markings will be paid for at the contract unit price per square foot (square meter) for SHORT TERM PAVEMENT MARKING REMOVAL.

b) Temporary Pavement Marking. Where the Contractor has the option of material type, temporary pavement marking will be paid for at the contract unit price per foot (meter) for TEMPORARY PAVEMENT MARKING of the line width specified, and at the contract unit price per square foot (square meter) for TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS.

Where the Department specifies the use of pavement marking tape, the Type III or Type IV temporary pavement marking will be paid for at the contract unit price per foot (meter) for PAVEMENT MARKING TAPE, TYPE III or PAVEMENT MARKING TAPE, TYPE IV of the line width specified and at the contract unit price per square feet (square meter) for PAVEMENT MARKING TAPE, TYPE III - LETTERS AND SYMBOLS or PAVEMENT MARKING TAPE, TYPE IV – LETTERS AND SYMBOLS.

Removal of temporary pavement markings will be paid for at the contract unit price per square foot (square meter) for TEMPORARY PAVEMENT MARKING REMOVAL.

When temporary pavement marking is shown on the Standard, the cost of the temporary pavement marking and its removal will be included in the cost of the Standard."

Add the following to Section 1095 of the Standard Specifications:

"**1095.11 Pavement Marking Tape, Type IV.** The temporary, preformed, patterned markings shall consist of a white or yellow tape with wet retroreflective media incorporated to provide immediate and continuing retroreflection during both wet and dry conditions. The tape shall be manufactured without the use of heavy metals including lead chromate pigments or other similar, lead-containing chemicals.

The white and yellow Type IV marking tape shall meet the Type III requirements of Article 1095.06 and the following.

(a) Composition. The retroreflective pliant polymer pavement markings shall consist of a mixture of high-quality polymeric materials, pigments and glass beads distributed throughout its base cross-sectional area, with a layer of wet retroreflective media bonded to a durable polyurethane topcoat surface. The patterned surface shall have approximately 40% ± 10% of the surface area raised and presenting a near vertical face to traffic from any direction. The channels between the raised areas shall be substantially free of exposed beads or particles.

(b) Retroreflectance. The white and yellow markings shall meet the following for initial dry and wet retroreflectance.

(1) Dry Retroreflectance. Dry retroreflectance shall be measured under dry conditions according to ASTM D 4061 and meet the values described in Article 1095.06 for Type III tape.

(2) Wet Retroreflectance. Wet retroreflectance shall be measured under wet conditions according to ASTM E 2177 and meet the values shown in the following table.

Wet Retroreflectance, Initial R_L

Color	R_L 1.05/88.76
White	300
Yellow	200

(c) Color. The material shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degrees circumferential/zero degree geometry, illuminant D65, and a two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

Color	Daylight Reflectance %Y
White	65 minimum
*Yellow	36-59

*Shall match Federal 595 Color No. 33538 and the chromaticity limits as follows.

x	0.490	0.475	0.485	0.530
y	0.470	0.438	0.425	0.456

(d) Skid Resistance. The surface of the markings shall provide an average minimum skid resistance of 50 BPN when tested according to ASTM E 303.

(e) Sampling, Testing, Acceptance, and Certification. Prior to approval and use of the wet reflective, temporary, removable pavement marking tape, the manufacturer shall submit a notarized certification from an independent laboratory, together with the results of all tests, stating that the material meets the requirements as set forth herein. The certification test report shall state the lot tested, manufacturer's name, and date of manufacture.

After approval by the Department, samples and certification by the manufacturer shall be submitted for each batch used. The manufacturer shall submit a certification stating that the material meets the requirements as set forth herein and is essentially identical to the material sent for qualification. The certification shall state the lot tested, manufacturer's name, and date of manufacture.

All costs of testing (other than tests conducted by the Department) shall be borne by the manufacturer."

80298

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 2. 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

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

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 **125** 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.