CITY OF DANVILLE

Carol G. Henley, Director of Purchasing

P.O. Box 3300
Danville, VA 24543

427 Patton Street, Rm 304
Danville, VA 24541

Phone: 434.799.6528 | Fax: 434.799.5102 | Email: purchasing@danvilleva.gov

INVITATION FOR BID

IFB No.:	**IFB 24-25-096**
Title:	**Kemper Road Improvements – S Main St. to Edmonds St. - REBID**
Identified By:	State Project No. TA21-108-468, C-501 VDOT UPC No. 117942 Federal Project No. TAP-5108(203)
Pre-Bid Meeting: (non-mandatory)	Pre-Bid Meeting will be held July 15, 2025 at 11*:00 AM* in the 3rd floor conference room, Municipal Building, 427 Patton St., Danville, VA Remote viewing of the Pre-Bid Meeting will also be available online at: https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZjY1NWM2NjktNWQ5Yy00ZGE0LThmZTEtNmVmNzA4OTk5NDc5%40thread.v2/0?context=%7b%22Tid%22%3a%22e067ef15-4f84-4d78-9db2-60db09a75390%22%2c%22Oid%22%3a%22b2797c49-4fc6-4a06-8063-bb659cec673c%22%7d
Bid Due Date:	**Sealed Bids shall be accepted no later than:** **August 6, 2025 at 2:00 p.m.** Submit electronically through eVA or on paper (mail or hand-deliver) to the Purchasing Department, 427 Patton Street, Room 304, Danville, VA 24541
Direct Questions to:	Carol Henley, Director of Purchasing: purchasing@danvilleva.gov cc: Karen Black, PE: blackka@danvilleva.gov
Last Date for Questions:	July 23, 2025 at 5:00 p.m.

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PLANS (UNDER SEPARATE ATTACHMENT)

NOTICE TO BIDDERS

Invitation for Bid No. 24-25-096 Bids open August 6, 2025 at 2:00 p.m.

The City of Danville will receive sealed bids for construction of: KEMPER ROAD IMPROVEMENTS – S MAIN ST. TO EDMONDS ST.

Bidders must be prequalified with the Virginia Department of Transportation (VDOT). For information about becoming VDOT Prequalified, please visit https://www.vdot.virginia.gov/doing-business/business-opportunities/highway-contractors/.

Detailed work description: Regular excavation and grading. Construction of sidewalk along the south side of Kemper Road between S Main Street and Edmonds Street (approximately 1880 feet). Several concrete driveway entrances shall be replaced. Continental crosswalks shall be installed at locations as shown on plans.

Contract time limits: See Supplemental General Conditions

The City of Danville in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C.§§ 2000d to 2000d-4) and the Regulations, hereby notifies all Bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

In the solicitation or awarding of contracts, the City of Danville does not discriminate against Bidders or offerors because of race, religion, color, sex, sexual orientation, gender identity, national origin, age, disability, status as a service-disabled veteran, or any other basis prohibited by federal or state law relating to discrimination in employment. The City of Danville does not discriminate against faith-based organizations.

This project is funded with local, state, and **federal transportation funds**.

It is the policy of the Virginia Department of Transportation that Disadvantaged Business Enterprises (DBE) as defined in 49 CFR Part 26 must have the maximum opportunity to participate in the performance of federally funded contracts. A list of DBE firms certified by the SBSD and MWAA is maintained on SBSD's website (https://www.SBSD.virginia.gov) under the DBE Directory of Certified Vendors. Contractors are encouraged to take all necessary and reasonable steps to ensure that DBE firms have the maximum opportunity to compete for and perform services on contract, including participation in any subsequent supplement contracts. If the contractor intends to subcontract a portion of the services on the project, the contractor is encouraged to seek out and consider DBEs as potential subcontractors. The contractor/subcontractor is encouraged to contact DBEs to solicit their interest, capability, and qualifications. Any agreement between a contractor/consultant and a DBE whereby the DBE promises not to provide services to other contractors/consultants is prohibited.

The DBE participation requirement for this contract is 3.00%.

PREVAILING WAGES in compliance with the DAVIS-BACON ACT are REQUIRED on this Contract. Prevailing wage rates applicable to this Contract are provided in the Specifications.

A non-mandatory pre-bid conference will be held in person at the date, time, and location indicated in the Instructions to Bidders. Remote viewing may be made available online (see page 1 for meeting link).

The City will receive Bids until 2:00 p.m. local prevailing time on the date at the location indicated in the Instructions to Bidders.

Bid bond equal to at least 5% of the bid amount is required with Bid. Performance and payment bonds each in the amount of 100% of the Contract Price will be required upon Notice of Award.

Withdrawal of bids due to error shall be subject to and in accordance with Va. Code § 2.2-4330

Electronic copies of the Bidding Documents may be obtained on eVA (https://eva.virginia.gov/) or from the City's bid postings website. Physical copies of project plans may be provided Bidders if indicated in the Instructions to Bidders.

All Bidders (including those submitting paper bids) must be registered on eVA (see Instructions to Bidders)

City of Danville
Director of Purchasing

PREBID QUESTION FORM

DATE:_____

PROJECT: Kemper Road Improvements – S Main St. to Edmonds St.

IFB NO.: 24-25-096

DURING BIDDING, WRITTEN (NOT ORAL) COMMENTS CONCERNING CONFLICTS (ERRORS, INCONSISTENCIES, OR OMISSIONS) IN THE BIDDING DOCUMENTS SHALL BE SUBMITTED ON THIS FORM. CONFLICTS WILL BE RESOLVED ONLY BY WRITTEN ADDENDA. THE CITY WILL NOT RECEIVE OR RESPOND TO QUESTIONS OTHER THAN WRITTEN COMMENTS CONCERNING CONFLICTS.

THE FOLLOWING CONCERNS DRAWINGS, SHEET(S) _____:

_____

_____

_____

_____

_____

_____

THE FOLLOWING CONCERNS SPECIFICATIONS/PROJECT MANUAL,

PAGE _____: PARAGRAPH _____,

_____

_____

_____

_____

_____

SUBMITTED BY: _____

Name Phone

_____

Organization

SUBMIT FORM BY EMAIL TO: PURCHASING@DANVILLEVA.GOV
CC: BLACKKA@DANVILLEVA.GOV

EMAIL SUBJECT LINE: IFB 24-25-096 (UPC 117942) PRE-BID QUESTION

INSTRUCTIONS TO BIDDERS

ARTICLE 1 - GENERAL

1.1 DEFINITIONS

When used in these instructions to bidders, unless explicit definition is otherwise given, the definitions and terminology of the General Conditions apply.

1.2 BID DATE

Sealed Bids shall be received no later than:

2:00 p.m. on August 6, 2025

Submit electronically through eVA (https://eva.virginia.gov/) or on paper (mail or hand-deliver) to the following address:

ATTN: IFB 24-25-096
City of Danville
Purchasing Department-Room 304
427 Patton Street
Danville, VA 24541

1.3 PRE-BID CONFERENCE

A non-mandatory pre-bid conference (project showing) will be held at 11:00 AM on July 15, 2025 at:

3rd Floor Conference Room
Municipal Building (City Hall)
427 Patton Street
Danville, VA 24541

Representatives of the City and the Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference. The City will issue such Addenda as the Engineer considers necessary to address questions that arise at the conference.

1.4 BIDDING DOCUMENTS

1.4.1 COPIES OF BIDDING DOCUMENTS

Electronic copies of the Bidding Documents are available electronically on eVA (https://eva.virginia.gov/) or the City's bid postings website. Hardcopies of plans are available as follows:

a. One set of project plans will be available for inspection at the Purchasing Office.

b. The Engineer may, upon written request, provide one (1) full-size set of project plans (24" x 36") and up to two (2) sets of reduced-size plans (11" x 17") free of charge to prospective Bidders.

1.4.2 INTERPRETATIONS OF BIDDING DOCUMENTS

a. The Bidder shall: (1) carefully study and compare the Bidding Documents with each other, (2) examine the site and local conditions and compare with the Bidding Documents, and (3) report, at once, to the Purchasing Director errors, inconsistencies, or ambiguities discovered.

b. Bidders requiring clarification or interpretation of the Bidding Documents or requesting substitutions shall submit a written request on the Pre-Bid Question Form no later than the last date for questions indicated on the first page of the Invitation for Bids.

c. Interpretations, corrections, substitution approvals, and changes of the Bidding Documents will be made by Addendum. Interpretations, corrections, substitution approvals, and changes of the Bidding Documents made in any other manner will not be binding.

d. When conflicts arise between local, state, and federal codes or federal-aid provisions, the federal-aid or most conservative approach shall be taken.

1.4.3 SUBSTITUTIONS

a. The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, and those “or-equal” or substitute or materials and equipment subsequently approved by Engineer prior to the submittal of Bids and identified by Addendum.

b. The substitution review and approval process will be handled in accordance with the provisions of the General Conditions.

1.4.4 ADDENDA

a. Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

b. Addenda will be issued no later than ten (10) days prior to the bid date except an Addendum withdrawing the Invitation for Bids or one which includes postponement of the bid date.

c. Each Bidder shall ascertain prior to submitting a Bid that the Bidder has received all Addenda issued and shall acknowledge their receipt on the Bid Form.

d. The Bidder shall sign and submit copies of each Addendum with its Bid.

e. When Addenda are issued, Bidders that have submitted an electronic response through eVA must resubmit their response to the latest version of the solicitation.

1.5 BIDDING PROCEDURES

1.5.1 PREPARATION OF BIDS

a. Bids shall be submitted on the forms included in the Bidding Documents.

b. All blanks on the Bid Form and required submittals shall be legibly executed in a non-erasable medium.

c. Interlineations, alterations, and erasures must be initialed by the signer of the Bid Form.

d. Unsigned or qualified bids shall not be accepted.

1.5.2 BID SECURITY

a. Each Bid shall be accompanied by a bid security in the form and amount specified in the General Conditions. The Bidder pledges to enter into a Contract with the City on the terms stated in the Bid and will furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds, the amount of the bid security shall be forfeited to the City as described in the General Conditions not as a penalty, but as liquidated damages.

b. The City will have the right to retain the bid security of Bidders to whom an award is being considered until either (1) the Contract has been executed and bonds have been furnished, or (2) the specified time has elapsed so that Bids may be withdrawn, or (3) all Bids have been rejected.

1.5.3 SUBMISSION OF BIDS

a. Bids shall be submitted either: (1) on paper (mailed or hand-delivered) to the address designated for receipt of Bids, or (2) electronically through eVA at https://eva.virginia.gov/. Each Bidder shall choose only one method of submission. A Bid will not be accepted if submitted both electronically and on paper.

b. The latest dated and time stamped bid will be the only bid accepted and evaluated.

c. **All Bidders (including those submitting paper Bids) shall be registered on eVA at**

https://eva.virginia.gov/. There is no cost for eVA registration.

d. Paper Submission: Envelopes shall be sealed and marked in the lower left-hand corner with "IFB 24-25-096 Kemper Road Improvements – S Main St. to Edmonds St. " and the Bidder's name and submitted to the location designated for receipt of Bids.

e. Electronic Submission: Bid invitation can be found on eVA at https://eva.virginia.gov/ under the Business Opportunities Tab > Virginia Business Opportunities (VBO). Search IFB 24-25-096. **When Addenda are issued, Bidders that have submitted an electronic response must resubmit their response to the latest version of the solicitation.**

f. Bidders are expected to examine all instructions and the Bidding Documents. Failure to do so will be at the Bidder's risk.

g. Bids shall be deposited electronically or on paper at the designated location prior to the time and date for receipt of Bids. Bids received after the time and date for receipt of Bids will not be accepted.

h. The Bidder shall assume full responsibility for timely delivery of its Bid electronically or on paper to the location designated for receipt of Bids.

i. The Bidder shall furnish a unit or lump sum price as called for on the bid schedule, in numerical figures, for each pay item listed. The Bidder shall also show the products of the unit prices and quantities in numerical figures in the column provided for that purpose and the total amount of the Bid. If a unit or lump sum price is omitted, the Bid will be rejected.

1.5.4 BID SUBMITTALS

Submit the following with Bid:

a. Fully executed Bid Form including:

1. Certification Regarding Lobbying

2. Certification Regarding Debarment

b. Fully executed Bid Bond on City of Danville, Virginia Bid Bond Form or other form acceptable to the City.

c. Fully executed VDOT Forms C-104 and C-105

d. It is preferred that fully executed VDOT Forms C-48 and C-111 are submitted with the Bidder's Bid; however, these forms must be received no later than 10:00 a.m. the next business day.

1. If the Bidder is unable to attain sufficient DBE participation to meet the DBE goal, the Bidder must submit, within two (2) business days after bid opening, fully executed VDOT Form C-49 in accordance with VDOT Special Provision for Section 107 - DBE Requirements.

e. Signed copies of each Addenda (if any).

1.5.5 MODIFICATION AND WITHDRAWAL OF BID

a. Procedures for modification and withdrawal of Bids shall be in accordance with the General Conditions.

1.6 CONSIDERATION OF BIDS

1.6.1 OPENING OF BIDS

a. Properly submitted Bids will be opened publicly and read aloud on the date and at the location designated for receipt of Bids after the time for receipt of Bids has passed.

1.6.2 REJECTION OF BIDS

a. The City shall have the right to reject any or all Bids. A Bid not accompanied by the required bid security or other data required by the Bidding Documents, or a Bid which is in any way incomplete or irregular is subject to rejection.

1.6.3 ACCEPTANCE OF BID

a. It is the City's intent to award a Contract to the lowest responsible Bidder provided the Bid is determined to be responsive (has been submitted in accordance with the requirements of the Bidding Documents) and does not exceed the funds available.

b. Upon opening Bids, the City will evaluate all bid submittals to determine whether all requirements of the Bidding Documents have been met.

c. Bids will be compared on the basis of the summation of the products of the quantities shown in the bid schedule and the unit bid prices.

d. If there is a discrepancy between the unit price and its extension, the unit price will govern. Accordingly, the City may correct arithmetical errors in the bid prior to such comparison. The results of the comparisons will be available to the public after the determination has been made to award the Contract.

e. Bids will be considered irregular and may be rejected for any of the reasons stated in the General Conditions.

f. Bids will remain subject to acceptance for sixty (60) days after the Bid opening, or for such longer period of time that Bidder may agree to in writing.

1.7 POST-BID INFORMATION

1.7.1 POST-BID SUBMITTALS

a. Unless the Bidder submitted fully executed VDOT Forms C-48 and C-111 with its Bid, then these forms must be submitted and received by the City no later than 10:00 a.m. the next business day after bids open.

b. Within two (2) business days after bids open, if the Bidder is unable to attain sufficient DBE participation to meet the DBE goal, the Bidder must submit fully executed VDOT Form C-49 in accordance with VDOT Special Provision for Section 107 - DBE Requirements.

c. Within five (5) business days after bid opening, the apparent low Bidder must submit fully executed VDOT Form C-112.

d. Within five (5) business days after bid opening, the apparent low Bidder must submit fully executed VDOT Form C-110 if a DBE listed on VDOT Form C-111 is a regular dealer or distributor as defined in VDOT Special Provision for Section 107 - DBE Requirements.

e. Within ten (10) business days of the City's issuance of award notice, submit Certificates of Insurance showing compliance with the required types and amounts of insurance required in the Bidding Documents. Such Certificates of Insurance may be on City of Danville, Virginia Certificate of Insurance Form (attached), Form ACORD 25, or other forms as may be acceptable to the City.

f. Within ten (10) days of the City's issuance of award notice, submit Performance and Payment Bonds in the amount of 100% of the Contract Price and conforming to the Bidding Documents. Such Performance and Payment Bonds may be on City of Danville, Virginia Contract Performance Bond and Contract Payment Bond Forms (attached) or other forms as may be acceptable to the City.

END OF SECTION

BID FORM

ARTICLE 1 - BID RECIPIENT

1.1 This Bid is submitted to:

ATTN: DIRECTOR OF PURCHASING
CITY OF DANVILLE
427 PATTON ST RM 304
DANVILLE VA 24541-1215

1.2 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with the City to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in the Bidding Documents and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 - BASIS OF BID

2.1 The Bidder will complete the Work in accordance with the Contract Documents for the unit prices indicated in Article 7 - Bid Schedule. The Bidder hereby proposes to furnish all items including materials, supervision, labor, and equipment in strict accordance with said Contract Documents for the unit prices indicated on the Bid Schedule. The sum of the unit price indicated for each line item times the line item quantity is the Total Bid which equals:

_____

(write Total Bid from Bid Schedule in figures and words above)

ARTICLE 3 - BIDDER'S ACKNOWLEDGEMENTS

3.1 Bidder accepts all of the terms and conditions of the Bidding Documents, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing.

3.2 Bidder will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within the timeframe presented in the Instructions to Bidders.

ARTICLE 4 - BIDDER'S REPRESENTATIONS

4.1 In submitting this Bid, Bidder represents that:

a. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum Number	Addendum Date
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

b. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

c. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

d. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

e. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

f. Bidder is aware of the general nature of work to be performed by the City and others at the Site that relates to the Work as indicated in the Bidding Documents.

g. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

h. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

i. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 5 - BIDDER'S CERTIFICATION

5.1 The Bidder certifies that:

a. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

b. Bidder has not (directly or indirectly) induced or solicited any other entity to: (1) submit a false or sham Bid; or (2) refrain from bidding;

c. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this paragraph 5.1.c.:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of the City, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive the City of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of the City, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 6 - TIME OF COMPLETION

6.1 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with and on or before the date or within the number of calendar days indicated in the Contract Documents.

6.2 Bidder accepts the provisions of the Contract Documents as to liquidated damages.

ARTICLE 7 - BID SCHEDULE

Bidder acknowledges that quantities of work indicated in the Bid Schedule are not guaranteed and are solely for the purpose of comparison of Bids, and that final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

(Bid Schedule begins on next page)

A	B	C	D	E	F	G	H
ITEM NO.	**ITEM CODE**	**SPEC NO.**	**DESCRIPTION OF WORK**	**SCHED QTY**	**UNIT**	**UNIT PRICE**	**TOTAL PRICE** (E X G)
BID SCHEDULE							
01	513SD20-0001	513	MOBILIZATION	1.00	LS		
02	517SD20-0001	517	CONSTRUCTION SURVEYING CONSTR.	1.00	LS		
03	512SP20-0002	512, ATTD	NS MAINTENANCE OF TRAFFIC	1.00	LS		
04	512PA20-0008	ATTD	PORTABLE CHANGEABLE MESSAGE SIGN	5760.00	HR		
05	510SX20-0038	510	NS REMOVE EXIST. MINOR CONCRETE	400.00	SQYD		
06	510SX20-0041	510	NS REMOVE EXIST. MISC. ITEMS (LUMP SUM)	1.00	LS		
07	510SX20-0047	ATTD	NS RELOCATE EXIST. MISC. ITEMS (LUMP SUM)	1.00	LS		
08	303SD20-0034	303	TEMP. SILT FENCE TYPE A	250.00	LF		
09	303SX20-0003	303	NS EXCAVATION SIDEWALK EXCAVATION	200.00	CY		
10	308SD20-0003	308	AGGR. MATL. NO. 21A	500.00	TON		
11	504SD20-0003	504	HYDR. CEMENT CONC. SIDEWALK 4"	900.00	SY		
12	504SD20-0002	504	CG-12 DETECTABLE WARNING SURFACE	25.00	SY		
13	316SD20-0030	316	CONCRETE ENTRANCE PAVE. 7"	250.00	SY		
14	502SD20-0029	502	ENTRANCE GUTTER CG-9D	60.00	SY		
15	315SD20-0007	315	ASPHALT CONCRETE TY. SM-9.5A CONST	10.00	TON		
16	504SX20-0009	504	NS SIDEWALK DRIVEWAY TIE-IN	75.00	SY		
17	602SD20-0004	602	TOPSOIL CLASS B	50.00	CY		
18	603SD20-0002	603	TEMPORARY SEED	30.00	LB		
19	603SD20-0003	603	REGULAR SEED	50.00	LB		

A	B	C	D	E	F	G	H
ITEM NO.	**ITEM CODE**	**SPEC NO.**	**DESCRIPTION OF WORK**	**SCHED QTY**	**UNIT**	**UNIT PRICE**	**TOTAL PRICE** (E X G)
BID SCHEDULE							
20	603SX20-0013	603	NS FERTILIZER 15-30-15	25.00	LB		
21	507SD20-0027	507, ATTD	HIGH VISIBILITY FENCE, 4 FEET	40.00	LF		
22	512SD20-0042	512	ERADICATE LINEAR PVMT MRKG	40.00	LF		
23	512SD20-0043	512	ERADICATE NONLINEAR PVMT MRKG	40.00	SF		
24	704SD20-0051	704	DBL TURN ARR.THRU/LT OR RT TY B, CL II	1.00	EA		
25	704SD20-0015	704	TYPE B CLASS II PVMT LINE MRKG 24", WHITE	250.00	LF		
26	315SX20-0011	315	NS SAW-CUT ASPH CONC	450.00	LF		
27	315SD20-0010	315	ASPH. CONC. TY. BM-25.0A CONST	5.00	TON		
28	606SD20-0001	606	ROLLED EROSION CTRL PRODUCT EC-2 TYPE 1	750.00	SY		
						TOTAL BID =	

ARTICLE 8 - NON-STANDARD "ATTD" BID ITEM DESCRIPTIONS

The following describes measurement and payment for various items listed on the bid schedule and supersedes conflicting language that may be found in the Specifications:

NS MAINTENANCE OF TRAFFIC includes providing and maintaining all traffic control required for the project per the Plans, the Virginia Work Area Protection Manual and the Specifications except that separate measurement and payment will not be made for individual items other than **PORTABLE CHANGEABLE MESSAGE SIGN** which will be measured and paid per hour in use. All required traffic control devices and maintenance of traffic shall be included in the lump sum price bid for NS MAINTENANCE OF TRAFFIC line item. Payment will be in equal monthly installments.

NS REMOVE EXIST. MINOR CONCRETE includes demolition and/or removal and disposal (unless otherwise noted in the plans or directed by the Engineer) of miscellaneous concrete. For the purposes of demolition, "Minor Concrete" means existing concrete items (with or without steel reinforcement) including hydraulic cement concrete and asphalt cement concrete: sidewalks, ditches/flumes, curbs, and combination curb and gutter, and driveways.

NS REMOVE EXIST. MISC. ITEMS includes removal and disposal of all miscellaneous items required or noted on the plans, including decorative stones, shrubs, fences, or other items designated on the plans. Measurement and payment will be on a lump sum basis.

NS RELOCATE EXIST. MISC. ITEMS includes relocation of all miscellaneous items required or noted on the plans, including signs, satellite dish, fences, or other items designated on the plans. Measurement and payment will be on a lump sum basis.

NS EXCAVATION SIDEWALK EXCAVATION includes all required excavation including regular excavation. No measurement will be made and payment will be on a plan quantity basis.

NS SIDEWALK DRIVEWAY TIE-IN includes installing variable depth hydraulic cement concrete driveway tie-ins. Measurement and payment will be per square yard.

NS FERTILIZER 15-30-15 includes furnishing and applying approved fertilizer complying with Section 244.02(d) of the VDOT Specifications at a rate of 14 lbs per 100 square yards based of 15-30-15 N-P-K ratio (equivalent nutrients per 100 square yards: N=2.1 pounds, P=4.2 pounds, K=2.1 pounds). If fertilizer with a different N-P-K ratio is utilized, it shall be applied at a rate supplying the equivalent nutrients per 100 square yards and for the purposes of payment, the actual pounds used will be converted to the equivalent number of pounds based on a 15-30-15 N-P-K ratio.

HIGH VISIBILITY FENCE, 4 FEET includes installing high-visibility orange fencing for tree protection. Installation, measurement, and payment shall be as provided in the VDOT Specifications.

NS SAW-CUT ASPH CONC includes saw-cutting existing pavement for demolition activities. Saw cutting, where required, shall extend to the full depth of the pavement. The use of saw cutting shall be limited to use as directed by the Engineer or as shown on the plans. The Contractor shall obtain approval from the Engineer for all other saw cutting. Additional saw-cutting required to neaten ragged edges caused by Contractor damage or carelessness will not be measured and paid separately. Saw cutting will be measured in linear feet and paid at the contract unit price bid per linear foot.

CONTRACTOR QUALITY CONTROL TESTING is required and includes providing all quality control (QC) testing indicated to be provided by the Contractor in accordance with Special Provision included in the Contract Documents except hydraulic cement concrete sampling and testing (air content, temperature, slump, unit weight, and compressive strength cylinders) which will be provided by the City's consultant firm Whitman Requardt & Associates, LLP. The Contractor shall secure a qualified testing laboratory and pay for all other materials sampling and testing. No separate measurement and payment will be made for Contractor Quality Control Testing and the costs shall be considered incidental to the work (included in other bid items).

ARTICLE 9 - BID SUBMITTAL

This Bid is submitted by:

Bidder: [Indicate legal name of bidding entity]

_____

Doing Business As:_____
(if entity is an individual or if entity doing business under name other than legal name)

By [Signature]: _____

Printed Name: _____
(authorized representative)

Attest [Signature]: _____

[Printed Name]: _____

Title: _____

Submittal Date:_____

Address for giving notices: _____

_____

_____

Telephone: _____ Fax:_____

Contact Name and e-mail address: _____

Federal Taxpayer Identification Number: _____
(EIN, ITIN, or SSN as applicable)

Va. Contractor License No.*: _____
*Note: If licensed. (License not required to submit a Bid)

City of Danville Business License No.*: _____
*Note: If licensed. (License not required to submit a Bid)

Va. State Corporation Commission No.*: _____
*Note: Or attach explanation why organization is not required to be authorized in accordance with Va. Code § 2.2-4311.2

ARTICLE 10 - ATTACHMENTS TO THIS BID FORM

10.1 The forms referenced in the Instructions to Bidders are attached for use by Bidders. Fully executed forms must be submitted with the Bid except as otherwise specified in the Instructions to Bidders (refer to 1.5.4 and 1.7.1 therein). The following forms are attached:

1. Certification Regarding Lobbying
2. Certification Regarding Debarment
3. VDOT Forms C-104 and C-105
4. Bid Bond Form
5. VDOT Forms C-48 and C-49
6. VDOT Forms C-110, C-111, and C-112
7. Certificate of Insurance Form
8. Contract Performance Bond Form
9. Contract Payment Bond Form

(THIS AREA INTENTIONALLY BLANK)

CERTIFICATION REGARDING LOBBYING

The undersigned Bidder certifies, to the best of its knowledge and belief, that:

1. 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 an 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.

2. 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 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 OMB Standard Form-LLL, Disclosure of Lobbying Activities, in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

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 section 1352, title 31, U.S. Code. 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.

Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

_____ _____
Signature Date

_____
Title

CERTIFICATION REGARDING DEBARMENT

The undersigned Bidder certifies, to the best of his knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and
4. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).
5. Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements);
6. Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements);
7. Are not presently barred from bidding on contracts by any agency of the Commonwealth of Virginia; and
8. Are not part of any firm or corporation that is presently barred from bidding on contracts by any agency of the Commonwealth of Virginia.

The undersigned Bidder also certifies that, to the best of its knowledge and belief, that no subcontractor or supplier intended for use on this project is presently barred from bidding on contracts by any agency of the Commonwealth of Virginia.

This certification 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 Bidder knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

Where the Bidder is unable to certify to any of the statements in this certification, it should attach an explanation to this proposal.

_____ _____
Signature Date

_____
Title

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROJECT: TA21-108-468, C-501, UPC 117942

FHWA: TAP-5108(203)

This form must be completed, signed and returned with bid; and failure to do so may result in the rejection of your bid. **THE CONTRACTOR SHALL AFFIRM THE FOLLOWING STATEMENT EITHER BY SIGNING THE AFFIDAVIT AND HAVING IT NOTARIZED OR BY SIGNING THE UNSWORN DECLARATION UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES.** A SEPARATE FORM MUST BE SUBMITTED BY EACH PRINCIPAL OF A JOINT VENTURE BID.

STATEMENT. In preparation and submission of this bid, I, the firm, corporation or officers, agents or employees thereof did not, either directly or indirectly, enter into any combination or arrangement with any persons, firm or corporation or enter into any agreement, participate in any collusion, or otherwise take any action in the restraint of free, competitive bidding in violation of the Sherman Act (15 U.S.C. Section 1) or Article 1.1 or Chapter 12 of Title 18.2 (Virginia Governmental Frauds Act), Sections 59.1-9.1 through 59.1-9.17 or Sections 59.1-68.6 through 59.1-68.8 of the Code of Virginia.

AFFIDAVIT

The undersigned is duly authorized by the bidder to make the foregoing statement to be filed with bids submitted on behalf of the bidder for contracts to be let by the **CITY OF DANVILLE, VIRGINIA**.

Signed at _____ , this ____ day of _____ , 20 ____
County (City), STATE

_____ By:_____ _____
(Name of Firm) (Signature) Title (print)

STATE of _____ COUNTY (CITY) of _____

To-wit:

I _____ , a Notary Public in and for the State and County

(City) aforesaid, hereby certify that this day _____

personally appeared before me and made oath that he is duly authorized to make the above statements and that such statements are true and correct.

Subscribed and sworn to before me this ____ day of _____ , 20 ___

_____ My Commission expires _____
Notary Public

OR

UNSWORN DECLARATION

The undersigned is duly authorized by the bidder to make the foregoing statement to be filed with bids submitted on behalf of the bidder for contracts to be let by the **CITY OF DANVILLE, VIRGINIA**.

Signed at _____ , this ____ day of _____ , 20 ____
County (City), STATE

_____ By:_____ _____
(Name of Firm) (Signature) Title (print)

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PROJECT: TA21-108-468, C-501, UPC 117942

FHWA: TAP-5108(203)

This form must be completed, signed, notarized and returned with bid; and failure to do so, may result in the rejection of your bid. A separate form must be submitted by each principal of a joint venture bid.

1. I, the firm, corporation or officers, agents or employees thereof have neither directly nor indirectly entered into any combination or arrangement with any person, firm or corporation or entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such contract, the effect of which is to prevent competition or increase the cost of construction or maintenance of roads or bridges.

   During the preceding twelve months, I (we) have been a member of the following Highway Contractor's Associations, as defined in Section 33.2-1106 of the Code of Virginia. (If none, so state).

NAME	Location of Principal Office
_____	_____
_____	_____
_____	_____

2. I (we) have ___ have not ___ participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that I/We have ____ , have not ____, filed with the joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

   Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor [41 CFR 60-1.7(b)(1)], and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contract or subcontracts of $10,000 or under are exempt.)

   Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contract and subcontract unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

(Continued)

3. The bidder certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offence 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;

(c) 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 above; and

(d) Where the bidders is unable to certify to any of the statements in this certification, the bidder shall show an explanation below.

Explanations will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any explanation noted, indicate below to whom it applies, initiating agency, and dates of action. Providing false information may result in federal criminal prosecution or administration sanctions. The bidder shall provide immediate written notice to the Department if at any time the bidder learns that its certification was erroneous when submitted or has become erroneous by reason of change circumstances.

The undersigned is duly authorized by the bidder to make the foregoing statement to be filed with bids submitted on behalf of the bidder for contracts to be let by the **CITY OF DANVILLE, VIRGINIA**.

Signed at _____ , this ____ day of _____ , 20 ____
County (City), STATE

_____ By:_____ _____
(Name of Firm) (Signature) Title (print)

STATE of _____ COUNTY (CITY) of _____

To-wit:

I _____ , a Notary Public in and for the State and County

(City) aforesaid, hereby certify that this day _____

personally appeared before me and made oath that he is duly authorized to make the above statements and that such statements are true and correct.

Subscribed and sworn to before me this ____ day of _____ , 20 ___

_____ My Commission expires _____
Notary Public

CITY OF DANVILLE, VIRGINIA

BID BOND

KNOW ALL MEN BY THESE PRESENTS, THAT WE _____ As

principal, and _____ Surety, are held and firmly bound unto the City of Danville, Virginia as obligee, in the amount of **FIVE PERCENT OF THE DOLLAR VALUE OF THE BID**, lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally and firmly by these presents.

SIGNED, sealed and dated this _____ Day of _____ , 20 _____

WHEREAS, the above said principal is herewith submitting its proposal for:

PROJECT NUMBER:

NOW, THEREFORE, the condition of the above obligee is such, that if the aforesaid principal shall be awarded the contract upon said proposal and shall within the time specified in the Specifications after the notice of such award enter into a contract and give bond for the faithful performance of the contract, then this obligation shall be null and void; otherwise to remain in full force and effect and the principal and surety will pay unto the obligee the difference in money between the amount of the bid of the said principal and the amount for which the obligee may legally contract with another party to perform the said work if the latter amount be in excess of the former; but in no event shall the liability exceed the penal sum hereof.

_____ (Principal*)

_____ (Surety Company)

By: _____ (Officer, Partner or Owner) (Seal)

By: _____ (Attorney-in-Fact**) (Seal)

_____ (Principal*)

_____ (Address)

By: _____ (Officer, Partner or Owner) (Seal)

By: _____ (Surety Company)

_____ (Principal*)

_____ (Attorney-in-Fact**) (Seal)

By: _____ (Officer, Partner or Owner) (Seal)

By: _____ (Address)

*Note: If the principal is a *joint venture*, each party thereof must be named and execution made by same hereon. If there is more than one surety to the bid bond, each surety must be named and execution shall be made by same hereon.

Bid Bond ID# Company/Bidder Name Signature and Title

**Attach copy of Power of Attorney

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

SUBCONTRACTOR/SUPPLIER SOLICITATION AND UTILIZATION, AND VENDOR SURVEY FORM (ALL VENDORS)

PROJECT NO. **TA21-108-468, C-501 (UPC NO. 117942)** **CONTRACT ID NO.** **24-25-096**

FHWA NO. **TAP-5108(203)** **DATE SUBMITTED** _____

All vendors submitting a bid as a Prime Contractor shall complete and submit with their bids the following information as requested for (1) Subcontractor/Supplier Solicitation, and Utilization, and (2) for Vendor Survey.

The vendor certifies this form accurately represents its solicitation and utilization or non-utilization, as indicated, of the firms listed below for performance of work on this contract. The vendor also certifies he/she has had direct contact with the named firms regarding participation on this project.

Vendor_____ Signature: _____

Vendor ID No. _____ Title: _____

Vendor's Address: _____

_____

City: _____ State: _____ Zip Code: _____

SUBCONTRACTOR/SUPPLIER SOLICITATION AND UTILIZATION (ALL)

VENDOR NUMBER	NAME OF SUBCONTRACTOR/SUPPLIER	TELEPHONE NUMBER	DBE OR NON-DBE	UTILIZED (Y/N)

NOTE: ATTACH ADDITIONAL PAGES, IF NECESSARY.

BIDDER MUST SIGN EACH ADDITIONAL SHEET TO CERTIFY ITS CONTENT AND COMPLETION OF FORM.

FEDERAL LAW REQUIRES ALL VENDORS SUBMITTING BIDS OR OFFERS PROVIDE THE INFORMATION REQUESTED IN THIS FORM.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

VENDOR SURVEY

WHEN SUBMITTING A BID OR OFFER AS A PRIME CONTRACTOR, THE BIDDER MUST SUBMIT A VENDOR SURVEY FOR THEMSELVES AND A VENDOR SURVEY FOR EACH SUBCONTRACTOR AND SUPPLIER WHO SUBMITTED A BID OR QUOTE TO THE BIDDER.

VENDOR'S FULL LEGAL NAME: _____

VENDOR ID NO.: _____

ADDRESS: _____

_____

CITY: _____

STATE: _____ ZIP CODE: _____

VENDOR'S YEARS IN BUSINESS: _____

VENDOR'S STATUS: ____ DBE _____NON-DBE

[DBE means a small business that is certified as a Disadvantaged Business Enterprise by the Virginia Department of Small Business & Supplier Diversity or the Metropolitan Washington Airports Authority.]

GENDER OF VENDOR'S MAJORITY OWNER: _____ MALE _____ FEMALE _____ OTHER

ETHNICITY OF VENDOR'S MAJORITY OWNER:		White
(Defined in 49 CFR 26.5)		Black or African American
		Hispanic American
		Asian-Pacific American
		Subcontinent Asian American
		Native American, incl. Alaskan or Hawaiian
		Other: _____

VENDOR'S ANNUAL GROSS RECEIPTS:

__ $ 0 - 25 million

__ $ 25 - 50 million

__ $ 50 - 75 million

__ More than $75 million

THE UNDERSIGNED, ON BEHALF OF VENDOR IDENTIFIED ABOVE, ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY STATES THE INFORMATION CONTAINED HEREIN TO THE BEST OF VENDOR'S KNOWLEDGE.

_____
Printed Full Legal Name of Person Signing for Vendor

Signature:_____

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

--DO NOT DETACH--

THIS INFORMATION MUST BE SUBMITTED WITHIN 2 DAYS AFTER BID OPENING IF YOUR BID DOES NOT MEET THE PROJECT DBE REQUIREMENTS, OR WHEN REQUESTED BY VDOT

CONTRACT I.D. NUMBER.....**IFB 24-25-096**

PROJECT NUMBER..... **TA21-108-468, C-501 (UPC NO. 117942)**

FHWA NUMBER.....**TAP-5108(203)**

DISTRICT.....**CITY OF DANVILLE**

DATE BID SUBMITTED _____

BIDDER'S NAME _____

SIGNATURE _____

TITLE_____

VENDOR NUMBER_____

DBE GOAL FROM BID PROPOSAL **3.00%**

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO.: IFB 24-25-096 **DATE SUBMITTED:** _____

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ **SIGNATURE**_____

TITLE_____

NAMES OF CERTIFIED DBEs AND THE DATES ON WHICH THEY WERE SOLICITED TO BID ON THIS PROJECT

INCLUDE THE ITEMS OF WORK OFFERED AND THE DATES AND METHODS USED FOR FOLLOWING UP INITIAL SOLICITATIONS TO DETERMINE WHETHER OR NOT DBEs WERE INTERESTED.

NAMES AND VENDOR NUMBERS OF DBEs SOLICITED	DATE OF INITIAL SOLICITATION	ITEM(S) OF WORK	FOLLOW-UP METHODS AND DATES

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY

ATTACH COPIES OF SOLICITATIONS, TELEPHONE RECORDS, FAX CONFIRMATIONS, ELECTRONIC INFORMATION, ETC.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO.: IFB 24-25-096 **DATE SUBMITTED: _____**

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ **SIGNATURE** _____

TITLE _____

TELEPHONE LOG

DBE(s) CALLED	TELEPHONE NUMBER	DATE CALLED	TIME CALLED	CONTACT PERSON OR VOICE MAIL STATUS

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO.: IFB 24-25-096 **DATE SUBMITTED: _____**

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ **SIGNATURE** _____

TITLE _____

ITEM(S) OF WORK THAT THE BIDDER MADE AVAILABLE TO DBE FIRMS

IDENTIFY THOSE ITEM(S) OF WORK THAT THE BIDDER MADE AVAILABLE TO DBE FIRMS OR THOSE ITEM(S) THE BIDDER IDENTIFIED AND DETERMINED TO SUBDIVIDE INTO ECONOMICALLY FEASIBLE UNITS TO FACILITATE DBE PARTICIPATION. FOR EACH ITEM LISTED, SHOW THE DOLLAR VALUE AND PERCENTAGE OF THE TOTAL CONTRACT AMOUNT. IT IS THE BIDDER'S RESPONSIBILITY TO DEMONSTRATE THAT SUFFICIENT WORK TO MEET THE GOAL WAS MADE AVAILABLE TO DBE FIRMS.

ITEM(S) OF WORK MADE AVAILABLE(CONT.)	BIDDER NORMALLY PERFORMS ITEM(S) (Y/N)	ITEM(S) BROKEN DOWN TO FACILITATE PARTICIPATION (Y/N)	AMOUNT IN DOLLARS	PERCENTAGE OF CONTRACT

NOTE: INFORMATION REQUIRED FOR THIS SECTION CONTINUED ON SHEET 5
ATTACH ADDITIONAL PAGES IF NECESSARY

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO.: IFB 24-25-096 **DATE SUBMITTED: _____**

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ **SIGNATURE** _____

TITLE _____

ADDITIONAL INFORMATION REGARDING ITEM(S) OF WORK THAT THE BIDDER MADE AVAILABLE TO DBE FIRMS (Continued From Sheet 4)

ITEM(S) OF WORK MADE AVAILABLE, NAMES OF SELECTED FIRMS AND DBE STATUS, DBEs THAT PROVIDED QUOTES, PRICE QUOTE FOR EACH FIRM, AND THE PRICE DIFFERENCE FOR EACH DBE IF THE SELECTED FIRM IS NOT A DBE.

ITEM(S) OF WORK MADE AVAILABLE(CONT.)	NAME OF SELECTED FIRM AND VENDOR NUMBER	DBE OR NON-DBE	NAME OF REJECTED FIRM(S)	QUOTE IN DOLLARS	PRICE DIFFERENCE IN DOLLARS

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

IF THE FIRM SELECTED FOR THE ITEM IS NOT A DBE, PROVIDE THE REASON(S) FOR THE SELECTION ON A SEPARATE PAGE AND ATTACH.

PROVIDE NAMES, ADDRESSES, AND TELEPHONE NUMBERS FOR THE FIRMS LISTED ABOVE.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO.: IFB 24-25-096 **DATE SUBMITTED: _____**

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ **SIGNATURE** _____

TITLE _____

ADVERTISEMENTS OR PROOFS OF PUBLICATION.

NAMES AND DATES OF EACH PUBLICATION IN WHCH A REQUEST FOR DBE PARTICIPATION FOR THE PROJECT WAS PLACED BY THE BIDDER. ATTACH COPIES OF PUBLISHED ADVERTISEMENTS OR PROOFS OF PUBLICATION.

PUBLICATIONS	DATES OF ADVERTISEMENT

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO.: IFB 24-25-096 **DATE SUBMITTED: _____**

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ **SIGNATURE** _____

TITLE _____

NAMES OF AGENCIES CONTACTED TO PROVIDE ASSISTANCE

NAMES OF AGENCIES (SEE SPECIAL PROVISION FOR 107.15) AND THE DATES THESE AGENCIES WERE CONTACTED TO PROVIDE ASSISTANCE IN CONTACTING, RECRUITING, AND USING DBE FIRMS. IF THE AGENCIES WERE CONTACTED IN WRITING, ATTACH COPIES OF SUPPORTING DOCUMENTS.

NAME OF AGENCY	METHOD AND DATE OF CONTACT	RESULTS

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY**.**

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO.: IFB 24-25-096 **DATE SUBMITTED: _____**

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ **SIGNATURE** _____

TITLE _____

TECHNICAL ASSISTANCE AND INFORMATION PROVIDED TO DBEs

EFFORTS MADE TO PROVIDE INTERESTED DBEs WITH ADEQUATE INFORMATION ABOUT THE PLANS, SPECIFICATIONS, AND REQUIREMENTS OF THE BID DOCUMENTS TO ASSIST THE DBEs IN RESPONDING TO A SOLICITATION.

IDENTIFY THE DBEs ASSISTED, THE INFORMATION PROVIDED, AND THE DATE OF CONTACT. ATTACH COPIES OF SUPPORTING DOCUMENTS.

DBEs ASSISTED	INFORMATION PROVIDED	DATE OF CONTACT

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO.: IFB 24-25-096 **DATE SUBMITTED: _____**

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ **SIGNATURE** _____

TITLE _____

EFFORTS MADE TO ASSIST DBEs OBTAIN BONDING, LINES OF CREDIT, INSURANCE, ETC.

EFFORTS MADE TO PROVIDE INTERESTED DBEs IN OBTAINING BONDING, LINES OF CREDIT, INSURANCE, NECESSARY EQUIPMENT, SUPPLIES, MATERIALS, OR RELATED ASSISTANCE OR SERVICES, EXCLUDING SUPPLIES AND EQUIPMENT THE SUBCONTRACTOR PURCHASES OR LEASES FROM THE PRIME CONTRACTOR OR ITS AFFILIATES.

IDENTIFY THE DBEs ASSISTED, THE ASSISTANCE OFFERED, AND THE DATES OF SERVICES OFFERED AND PROVIDED. ATTACH COPIES OF SUPPORTING DOCUMENTS.

DBEs ASSISTED	ASSISTANCE OFFERED	DATES SERVICES OFFERED AND/OR PROVIDED

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO.: IFB 24-25-096 **DATE SUBMITTED: _____**

IF THE DBE GOAL ESTABLISHED FOR THIS CONTRACT HAS NOT BEEN MET OR VDOT REQUESTS THE SUBMITTAL THEREOF, THE BIDDER IS REQUIRED TO SUBMIT GOOD FAITH EFFORTS AS OUTLINED IN THIS DOCUMENT.

THE BIDDER ACKNOWLEDGES AND CERTIFIES THAT THIS FORM ACCURATELY REPRESENTS THE INFORMATION CONTAINED HEREIN.

BIDDER _____ **SIGNATURE** _____

TITLE _____

ADDITIONAL DATA TO SUPPORT DEMONSTRATION OF GOOD FAITH EFFORTS

ADDITIONAL DATA TO SUPPORT DEMONSTRATION OF GOOD FAITH EFFORTS

NOTE: ATTACH ADDITIONAL PAGES, IF NECESSARY

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE REGULAR DEALER/DISTRIBUTOR AFFIRMATION FORM

Bidder / Contractor Name:	
Project No.	TA21-108-468, C-501
FHWA No.:	TAP-5108(203)
Contract ID:	IFB 24-25-096
Date Submitted:	

*** INSTRUCTIONS ***

Submit this DBE Regular Dealer / Distributor Affirmation Form for each DBE listed as a regular dealer or distributor, on the Bidder's Form C-111 within 5 days after the bid opening, along with Form C-112 – Certification of Binding Agreement. In the questions below, "you and "your" refer to the DBE.

Section 26.53(c)(1) of Title 49 Code of Federal Regulations requires the Virginia Department of Transportation to make a preliminary counting determination for each DBE listed as a regular dealer or distributor to assess its eligibility for 60 or 40 percent credit, respectively, of the cost of materials and supplies based on its demonstrated capacity and intent to perform as a regular dealer or distributor, as defined in 49 CFR § 26.55(e)(2)(iv)(A),(B),(C), and (3) under the contract at issue. The preliminary determination will be based on the DBE's written responses to relevant questions and its affirmation that its subsequent performance of a commercially useful function will be consistent with the preliminary counting of such participation.

DBE Name:	
DBE Authorized Representative:	
Total Amount of DBE Subcontract / Purchase Order:	
NAICS Codes Applicable to Items Sold / Leased:	

1. Will all items sold or leased be provided from the on-hand inventory at your establishment?

   ☐ YES (If "YES," you have indicated that your performance will satisfy the regular dealer requirements and may be counted at 60%. STOP here. Read and sign the affirmation below.)

   ☐ NO (If "NO" Continue.)

   (a) Are you selling bulk items (e.g., petroleum products, steel, concrete, concrete products, sand, gravel, asphalt, etc.) or items not typically stocked due to their unique characteristics (aka specialty items)?

      ☐ YES (If "YES," Go to Question 2.)

      ☐ NO (If "NO" Continue.)

   (b) Will at least 51% of the items you are selling be provided from the inventory maintained at your establishment, and will the minor quantities of items delivered from and by other sources be of the general character as those provided from your inventory?

      ☐ YES (If "YES," you have indicated that your performance will satisfy the regular dealer requirements and may be counted at 60%. STOP here. Read and sign the affirmation below.

      ☐ NO * (*If 1,1(a), and 1(b) above are "NO," your performance on the whole will not satisfy the regular dealer requirements; therefore, only the value of items to be sold or leased from inventory can be counted at 60%. Go to Question 3, below, to determine if the items delivered from and by other sources are eligible for Distributor credit.)

2. Will you deliver all bulk or specialty items using distribution equipment you own (or under a long-term lease) and operate?

   ☐ YES (If "YES," you have indicated that your performance will satisfy the requirements for a regular dealer of bulk items and may be counted at 60%. STOP here. Read and sign the affirmation below.)

   ☐ NO (If "NO," your performance will not satisfy the requirements for a regular dealer of bulk items; the value of items to be sold or leased cannot be counted at 60%. Go to Question 3.)

3. Will the written terms of your purchase order or bill of lading from a third party transfer responsibility, including risk for loss or damage, to your company at the point of origin (e.g. a manufacture's facility)?

   ☐ YES ☐ NO

   (a) Will you be using sources other than the manufacturer (or other seller) to deliver or arrange delivery of the items sold or leased?

   ☐ YES ☐NO

   (If you responded "YES" to both 3 and 3(a), you have indicated that your performance will satisfy the requirements of a Distributor; therefore, the value of items sold or leased may be counted at 40%.)

   (If you responded "NO" to either 3 or 3(a), your performance will not satisfy the requirements for a regular dealer and counting of your participation is limited to the reasonable cost of fees or commissions charged, including transportation charges for the delivery of materials or supplies; the cost of materials or supplies may not be counted.)

* * *

For DBE:

I affirm that the information that I provided above is true and correct and that my company's subsequent performance of a commercially useful function will be consistent with the above responses. I further affirm that my company will independently negotiate price, order specified quantities, and pay for the items listed in the Bidder's Forms C-111 and C-112. This includes my company's responsibility for the quality of such items in terms of necessary repairs, exchanges, or processing of any warranty claims for damaged or defective materials.

Printed Name of DBE Owner/Authorized Representative

Signature

For Bidder:

The Bidder acknowledges its responsibility for verifying the information provided by the DBE named above and ensuring that the counting of the DBE's participation is accurate. Any shortfall in DBE participation caused by errors in counting are the responsibility of the Bidder.

Printed Name of Bidder Owner/Authorized Representative

Signature

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

MINIMUM DBE REQUIREMENTS

PROJECT NO: TA21-108-468, C-501 Contract ID No.: IFB 24-25-096

FHWA NO: TAP-5108(203) Order No.:

*****I N S T R U C T I O N S*****

LIST THE DBE(S) WHO WILL PARTICIPATE IN THE CONTRACT, INDICATE THE WORK THEY WILL PERFORM, THEIR VENDOR ID AND DBE CERTIFICATION NUMBERS, AND THE DOLLAR AMOUNT OF PARTICIPATION, REDUCED AS NEEDED FOR REGULAR DEALERS (60%), DISTRIBUTORS (40%), AND BROKERS (FEES/COMMISSIONS). COUNT 100% FOR SUBCONTRACTORS AND MANUFACTURERS, AND FOR HAULERS THAT DELIVER MATERIALS AND SUPPLIES TO THE PROJECT SITE (EXCLUDING COST OF THE MATERIALS AND SUPPLIES.

3.00 % X **$**_____ **= $**_____

DBE GOAL TOTAL CONTRACT VALUE MINIMUM DBE PARTICIPATION

DBE SUMMARY

NAME OF DBE SUBCONTRACTOR	VENDOR ID NO.	DBE CERTIFICATION NO.	SUBCONTRACT VALUE	DBE USE D AS SUBCONTR. (S) 100% MNFR. (M) 100% HAULER (H) 100% REG. DLR. (R) 60% DISTR. (D) 40% BROKER (B) Fees/Com		DOLLAR AMT DBE CREDIT
			$		%	$
			$		%	$
			$		%	$
			$		%	$
			$		%	$
			$		%	$
			$		%	$
			$		%	$

DBE PARTICIPATION ATTAINED TOTAL: $_____

DBE PARTICIPATION ATTAINED PERCENTAGE: _____ **%**

I/WE CERTIFY THAT THE LISTED DBES WILL BE USED ON THIS CONTRACT AS STATED HEREIN AND THAT IN THE PERFORMANCE OF THE CONTRACT I/WE WILL MAKE GOOD FAITH EFFORTS TO MEET OR EXCEED THE DBE GOAL ESTABLISHED FOR THE CONTRACT.

_____ BY: _____ _____

BIDDER'S NAME SIGNATURE DATE

Title:_____

DBE ITEMS ENTRY

Instructions: For each DBE listed in the Summary on page 1, complete a DBE Item Entry form.

NOTE: To count toward the DBE goal, DBEs must be certified in NAICS codes applicable to kind of work they perform. A DBE's Certification number and NAICS Codes are shown in the DBE's listing in the DSBD DBE Directory at: https://directory.sbsd.virginia.gov/#/executiveExport

Full DBE Name: _____

DBE Vendor ID No.:_____(DBE's number can be found on VDOT's List of Prequalified Vendors)

DBE Certification. No.: _____

DBE NAICS Code(s): _____

DBE Used As:

_____ Subcontractor	(S) Eligible for 100% of Subcontract Value
_____ Manufacturer	(M) Eligible for 100% of Subcontract Value
_____ Hauler	(H) Eligible for 100% of Subcontract Value Excluding Materials
_____Regular Dealer	(R) Eligible for 60%of Subcontract or PO Value
_____Distributor	(D) Eligible for 40% of Subcontract or PO Value
_____Broker	(B) Eligible for Fees / Commissions Only

WORK ASSIGNED TO DBE

Contract Bid Items	Description Of Work	QTY	Unit	DBE's Price	Applicable %	Dollar Amt DBE Credit
				$	%	$
				$	%	$
				$	%	$
				$	%	$
				$	%	$
				$	%	$
				$	%	$

DBE Credit Total: $ _ _ _ _ _ _ _ _

_____ BY: _____ _____

BIDDER'S NAME SIGNATURE DATE

Title:_____

[ATTACH ADDITIONAL SHEETS AS NECESSARY, EACH OF WHICH MUST BE SIGNED AND DATED.]

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

CERTIFICATION OF BINDING AGREEMENT
WITH
DISADVANTAGED BUSINESS ENTERPRISE FIRMS

Project No.: TA21-108-468, C-501, UPC 117942

Federal Project No.: TAP-5108(203)

This form is to be submitted in accordance with the Department's Special Provision for Section 107.15.

It is hereby certified by the below signed Contractors that there exists a written quote, acceptable to the parties involved preliminary to a binding subcontract agreement stating the details concerning the work to be performed and the price which will be paid for the aforementioned work. This document is not intended to, nor should it be construed to, contain the entire text of the agreement between the contracting parties. This document does not take the place of, nor may it be substituted for, an official subcontracting agreement in those situations that may require such an agreement. A copy of the fully executed *subcontract agreement* shall be submitted to the Engineer within fourteen (14) business days after contract execution.

It is further certified that the aforementioned mutually acceptable quote and fully executed subcontract agreement represent the entire agreement between the parties involved and that no conversations, verbal agreements, or other forms of non-written representations shall serve to add to, delete, or modify the terms as stated.

The prime Contractor further represents that the aforementioned mutually acceptable quote and fully executed subcontract agreement shall remain on file for a period of not less than one year following completion of the prime's contract with the Department or for such longer period as provisions of governing Federal or State law or regulations may require. For purposes of this form, the term Prime Contractor shall refer to any Contractor utilizing a DBE subcontractor, regardless of tier, in which they are claiming DBE credit toward the contract goal.

Contractors further jointly and severally represent that said binding agreement is for the performance of a "commercially useful function" as that term is employed in 49 C.F.R. Part 26.55 (c), (d).

TO BE SIGNED BY THE SUBCONTRACTOR TO THE PRIME CONTRACTOR, AND ANY LOWER TIER SUBCONTRACTORS HAVING A CONTRACT WITH THE BELOW NAMED DBE FIRM

Prime Contractor _____

By: _____ _____
Signature Title

Date: _____

First Tier
Subcontractor
If Applicable _____

By: _____ _____
Signature Title

Date: _____

Second Tier
Subcontractor
If Applicable _____

By: _____ _____
Signature Title

Date: _____

Third Tier
Subcontractor
If Applicable _____

By: _____ _____
Signature Title

Date: _____

DBE Contractor _____

By: _____ _____
Signature Title

Date: _____

CITY OF DANVILLE, VIRGINIA

CERTIFICATE OF INSURANCE

This form must be completed and returned within 10 business days of Notice of Award to:

Director of Purchasing
427 Patton Street
Danville, VA 24541

This is to certify that the _____
Insurance Company

Assured _____
Company

Address _____
Street City/County State ZIP

Policies of Insurance Described as Follows:

Kind of Policy	Worker's Compensation	Bodily Injury Liability and Property Damage Liability
Policy Number		
Effective Dates	From: To:	From: To:
Limits of Compensation	Provided by Worker's Compensation Laws of Commonwealth of Virginia	Each Occurrence: $ _____ Aggregate: $ _____
Exact Location Covered		
Classification of Work Covered (detail)		

This Certificate is issued at the request of the City of Danville, Virginia, 427 Patton Street, Danville, VA 24541.

Dated at: _____ _____
City/County State Agency

On the _____ of _____, 20 ___ By: _____
Day Month Year Authorized Representative

CITY OF DANVILLE, VIRGINIA

CONTRACT PERFORMANCE BOND

Know all men by these presents. That we _____

Hereinafter called the ("principal") and _____

_____ (hereinafter called the "Surety"), are held and firmly bound

unto the City of Danville, Virginia (hereinafter called the "Owner"), in full and just sum of_____

_____

Dollars ($_____) lawful money of the United States of America to be paid to said "Owner." Its successors, and assigns, to which payment well and truly to be made we bind ourselves, executors, administrators, successors, and assigns jointly and severally and firmly by these presents:

Whereas, The above bounden: "Principal" has entered into a contract with the said "Owner" by and through the Purchasing Director of the City of Danville, Virginia, said contract being attached hereto, for constructing or otherwise improving

Project: _____

Located _____

Contract ID Number: _____

upon certain terms and conditions in said contract more particularly mentioned: and

Whereas. It was one of the conditions of the award of the "Owner" pursuant to which said contract was entered into, that these presents shall be executed:

Now: Therefore. The conditions of this obligation is such that if the above burden "Principal" shall in all respects comply with the terms and conditions of said contract and his obligations thereunder, including the "Specifications", with amendments thereto, "Special Provisions," "Proposal," and plans therein referred to and made a part thereof, and such alterations as may be made in said plans and specifications as therein provided for, and shall indemnify and save harmless the said "Owner" against or from all cost, expenses, damages, injury or as loss to which the said :"Owner" may be subjected by reason of any wrongdoing, misconduct, want of care or skill, negligence or default, including patent infringements, delay or failure to comply with contract provisions, on the part of said "Principal," his agents or employees, in the execution or performance of said contract, including errors in the plans furnished by the "Principal," and shall pay all just claims for damages and injury to property then this obligation to be void; otherwise, to be and remain in full force and virtue in law.

Witness, The signature of the "Principal" and the signature of the "Surety" by its Attorney-in-fact and its corporate seal duly attached by their Attorney-in-fact,

hereunto affixed this_____ day of _____ in the year_____

_____	_____
(Principal)	(Surety Company)
By: _____	By: _____
(Officer, Partner or Owner) (SEAL)	Attorney-in-fact (SEAL)
_____	_____
(Address)	(Address)

(Continued)

CITY OF DANVILLE, VIRGINIA

CONTRACT PAYMENT BOND

Know all men by these presents. That we _____

Hereinafter called the "Principal" and _____

_____(hereinafter called the "Surety"), are held and firmly bound

unto the City of Danville, Virginia (hereinafter called the "Owner"), in full and the just sum of_____

_____

Dollars ($_____) lawful money of the United States of America to be paid to said "Owner." Its successors, and assigns, to which payment well and truly to be made we bind ourselves, executors, administrators, successors, and assigns jointly and severally and firmly by these presents:

Whereas, The above bounden "Principal" has entered into a contract with the said "Owner" by and through the Purchasing Director of the City of Danville, Virginia, said contract being attached hereto, for constructing or otherwise improving

Project: _____

Located: _____

upon certain terms and conditions in said contract more particularly mentioned: and

Whereas, It was one of the conditions of the award of the "Owner" pursuant to which said contract was entered into, that these presents shall be executed:

Now: Therefore. The conditions of this obligation is such that if the above burden "Principal" shall promptly pay all just claims for labor and material (including public utility services and reasonable rental of equipment when such equipment is actually used at the site) performed for or supplied to said "Principal" or any subcontractor in the prosecution of the work contracted for then this obligation is to be void; otherwise; to be and remain in full force and virtue in law.

Witness, the signature of the "Principal" and the signature of the "Surety" by its Attorney-in-fact and its corporate seal duly attached by their Attorney-in-fact,

hereunto affixed this_____ day of _____ in the year_____

_____	_____
(Principal)	(Surety Company)
By: _____	By: _____
(Officer, Partner or Owner) (SEAL)	Attorney-in-fact (SEAL)
_____	_____
(Address)	(Address)

GENERAL CONDITIONS

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ARTICLE 1 - GENERAL

1.1 DEFINITIONS

In the Bidding Documents, the following terms and definitions apply unless otherwise specified:

1.1.1 “Addenda” means written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Documents or proposed Contract Documents.

1.1.2 “Agreement” means the written instrument between City and Contractor covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

1.1.3 “Bid” means the offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

1.1.4 “Bidder” means an individual or entity that submits a Bid to the City.

1.1.5 “Bidding Documents” means the Bidding Requirements, proposed Contract Documents (including all Addenda), the Project Manual.

1.1.6 “Bidding Requirements” means the advertisement or invitation for bid, Addenda, Notice to Bidders, Instructions to Bidders, the Bid Form with any supplements or attachments, Bid security of acceptable form, and the General Conditions.

1.1.7 “City” means the City of Danville, Virginia.

1.1.8 “Contract” means the entire and integrated written agreement between City and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

1.1.9 “Contract Documents” means the following items which, together, comprise the Contract: the Agreement, the Bidding Requirements, the General Conditions, the Supplemental General Conditions, the General Administrative Requirements, the Specifications, the Drawings, items designated in the Agreement including exhibits and attachments to the Agreement, Work Change Directives, Change Orders, the VDOT Specifications, the VDOT Standard Drawings, the Contractor’s Performance Bond and Payment Bond, the Contractor’s certificates of insurance, and any affidavits or documents required to be made a part of the Contract by any federal or state law in effect on the date bids are due.

1.1.10 “Contract Times” means the number of days or the dates by which the Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion and final completion of the Work; and (c) complete the Work.

1.1.11 “Contractor” means the individual or entity with whom the City has entered into the Agreement.

1.1.12 “Drawings” means the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing the scope, extent, and character of the Work to be performed by the Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

1.1.13 “Engineer” means the City Engineer or his duly authorized representative or the individual or entity named as such in the Agreement.

1.1.14 “Laws and Regulations" means any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

1.1.15 “Milestone” means a principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.

1.1.16 “MUTCD” means the 2009 edition of the Manual on Uniform Traffic Control Devices with Revision Numbers 1 and 2 incorporated, dated May 2012; and the 2011 edition of the Virginia Supplement to the MUTCD with Revision Number 1 dated September 30, 2013.

1.1.17 “Owner” means the individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed. The Owner is the City.

1.1.18 “Plans” means that portion of the Drawings, wherever located and whenever issued, showing the design, location, and dimensions of the Work, generally including plans, profiles, elevations, sections, details, drawings, and diagrams.

1.1.19 “Project Manual” means the written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, forms, Specifications, and proposed Contract Documents. The contents of the Project Manual may be bound in one or more volumes.

1.1.20 “Shop Drawings” means all drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

1.1.21 “Site” means lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.

1.1.22 “Specifications” means that part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain applicable administrative requirements and procedural matters.

1.1.23 “Subcontractor” means an individual or entity having a direct contract with Contractor or with any other Subcontractor for: the performance of a part of the Work at the Site or furnishing materials to be incorporated into the Work that are prepared or assembled specifically for the Project. Suppliers of common, ordinary commercial materials are not considered Subcontractors.

1.1.24 “Substantial Completion” means the time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.

1.1.25 “Supplier” means a manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.

1.1.26 “VDOT Specifications” means the Virginia Department of Transportation Road and Bridge Specifications, dated 2020 and the Supplement thereto, dated 2022.

1.1.27 “VDOT Standard Drawings” means the 2016 edition of the Virginia Department of Transportation Road and Bridge Standards including all addenda or revisions thereto issued by the Virginia Department of Transportation prior to the date bids are due.

1.1.28 “Work” means the entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

1.1.29 “VWAPM” means the 2011 edition of the Virginia Work Area Protection Manual with Revision Number 2.1 incorporated, dated November 1, 2020.

1.1.30 The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed,” or similar terms to authorize an exercise of professional judgment by Engineer. The adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” and similar adjectives describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to any other provision of the Contract Documents.

1.2 BIDDER ELIGIBILITY

1.2.1 Bidder shall be prequalified by VDOT in accordance with VDOT Specifications.

1.2.2 Bidder may be required to submit evidence demonstrating its qualifications and ability to perform the Work:

a. Submit additional data that Bidder has practical knowledge of the particular work bid upon and that they have the financial resources to complete the proposed work if requested by the City.

1.3 BID SUBMITTAL

1.3.1 EXAMINATION OF SITE AND PROJECT INFORMATION

a. Bidders shall investigate and inspect the sites of the Work contemplated before preparing their Proposals in order to acquaint themselves as to the actual nature, character, conditions, quality requirements of the Work, subsurface conditions, and accuracy of estimated quantities.

b. All information given on the drawings or in the contract documents relating to existing subsurface and surface conditions and other structures is from the best sources at present available to the City. All such information is furnished only for the information and convenience of the Bidders.

c. It is agreed and understood that the City does not warrant or guarantee that the existing conditions or other structures encountered during the construction will be the same as those indicated on the drawings or in Contract Documents. The Bidder must be satisfied regarding the character, quantities and conditions of the various materials and the work to be done.

d. It is further agreed and understood that the Bidder will not use any of the information made available or obtained in any examination in any manner as a basis or ground of claim or demand of any nature against the City or Engineer arising from or by reason of any variance which may exist between the information offered and the actual conditions, materials, or structures encountered during the Work, except as may otherwise be provided for in the Contract Documents.

1.3.2 BID PREPARATION

a. Bids shall be prepared and submitted as specified in the Instructions to Bidders, Bid Form, and applicable provisions of the Bidding Documents.

1.3.3 INTERPRETATION

a. If any person or entity contemplating the submission of a bid is in doubt as to the true meaning of any part of the Bidding Documents, he should submit a written request for an interpretation thereof to the Director of Purchasing or the Engineer. An interpretation of the bid invitation document will be made only by written addendum issued to each potential Bidder. The City will not be responsible for explanations or interpretations of bid invitation documents except as issued in accordance herewith.

b. All notices, requests, instructions, approvals, and proposals, must be in writing.

c. If during performance of the project, the Contractor finds a conflict, error, or discrepancy in the Contract Documents, he shall so report to the Engineer in writing at once before proceeding and shall obtain a written interpretation or clarification from the Engineer.

d. When conflicts arise between local, state, and federal codes or federal-aid provisions, the federal-aid or most conservative approach shall be taken.

1.3.4 IRREGULAR BID PROPOSALS

Bids may be considered irregular for any of the following reasons:

a. Any reason stated in Section 102.06 of the VDOT Specifications.

b. The bid is on a form other than that furnished by the City, if the City’s form is altered, or if any part of the

proposal form is detached.

c. There are unauthorized additions, conditional or alternate pay items, or irregularities of any kind, which make the proposal incomplete, indefinite, or otherwise ambiguous.

d. The Bid does not contain a unit or lump sum price for each pay item listed in the proposal.

e. The Bid is not accompanied by the proposal guaranty specified by the City.

f. The Bidder fails to acknowledge all Addenda or fails to include signed copies of each Addenda with its Bid.

g. The prices in the bid are obviously mathematically and materially unbalanced, either in excess or below the cost analysis values as determined by the City. A mathematically unbalanced bid is a bid containing lump sum or unit price items that do not include reasonable labor, equipment, and material costs plus a reasonable proportionate share of the Bidder's overhead costs, other indirect costs, and anticipated profit. A materially unbalanced bid is when the City determines that an award to the Bidder submitting a mathematically unbalanced bid will not result in the lowest ultimate cost to the City.

h. The Bidder fails to submit a statement concerning collusion.

i. The bid submitted identifies a project different than the project for which the bid is submitted.

j. Attachments included in the bid are detached or altered when the Bid is submitted except as otherwise provided for herein.

k. The bid is not properly signed.

l. If required to be VDOT prequalified, the Bidder fails to provide Certification of Prequalification Classification.

m. The Bidder adds any provisions reserving the right to accept or reject an award or enter into a contract pursuant to an award except as otherwise permitted in the Specifications.

n. The Bidder submits its bid both electronically and on paper.

1.3.5 WITHDRAWAL OF BID DUE TO ERROR

Withdrawal of bids due to error shall be subject to and in accordance with Va. Code § 2.2-4330.

1.3.6 DISQUALIFICATION OF BIDDER

a. A Bidder shall be considered disqualified for any of the following reasons. Such reasons for disqualification are not exclusive and disqualification may occur based on other requirements in the Specifications.

1. Any reason stated in Section 102.08 of the VDOT Specifications.

2. Submitting more than one proposal from the same partnership, firm, or corporation under the same or different name.

3. Evidence of collusion among Bidders. Bidders participating in such collusion shall be disqualified as Bidders for any future work of the City until any such participating Bidder has been reinstated by the City as a qualified Bidder.

4. Uncompleted work under contract with the City that in the judgment of the Engineer might hinder or prevent prompt completion of additional work if awarded.

5. Failure to promptly pay or settle satisfactorily all undisputed bills for materials, labor, equipment, supplies, or other items specified in contracts in force at the time the new work comes under consideration for award.

6. Failure to cooperate properly with representatives of the City inspecting, monitoring or administering

construction or disorderly conduct toward any such representative in contracts.

7. Default under a previous contract with the City.

8. Failure to pay any amounts owed to the City.

9. Making materially false statements in a bid or certified statement submitted to the City.

b. Disqualified Bidders may challenge and appeal their disqualification according to the Rules Governing Prequalification Privileges, a VDOT publication.

1.4 AWARD CRITERIA

1.4.1 Unless otherwise specified all formal bids submitted shall be binding for sixty (60) calendar days following bid opening date.

1.4.2 Award will be made to the lowest responsible and responsive Bidder.

1.4.3 The City reserves the right to reject any or all offers and to waive informalities and minor irregularities in offers received.

1.4.4 After notice from the City, the successful Bidder has ten (10) days to enter into a contract or forfeit its bid security (bid bond or other security as applicable) as liquidated damages. By executing the contract, the Contractor certifies that he has reviewed the Contract Documents and the project area and accepts the conditions of each.

1.4.5 NEGOTIATION

a. The procedure described under Va. Code § 2.2-4318 regarding negotiation with the lowest Bidder does not apply to this procurement.

b. In accordance with 23 CFR 635.113(a), negotiation with Bidders during the period following the opening of bids and before the award of the contract shall not be permitted.

1.5 CONTRACTOR’S GENERAL WARRANTY AND GUARANTEE

1.5.1 The Contractor shall guarantee that all the materials used and all the work done under the contract shall fully comply with the requirements of the plans and specifications and the instructions of the City.

1.5.2 Any defects in the completed work or failure of the construction to fully perform or endure the service for which it is intended, which in the opinion of the City are caused by or due to the use of materials, skill, or workmanship not in compliance with the said plans, specifications, and instructions, that may appear in the work within a period of twelve (12) months after acceptance by the City shall be regarded as prima facie and conclusive evidence that the Contractor has failed to comply with the said specifications, plans, and instructions. The Contractor in this event, shall at his own expense, at such time and in such manner as the Engineer may direct, repair or take up and reconstruct any such defective work, in full compliance with the original specifications, plans, and instructions.

The repairs required to be made by the Contractor shall extend only to making good any inherent defects which become manifested in the materials and workmanship under ordinary conditions, and shall not be held to cover any breakage or damage caused by improper use or by accident from circumstances over which the Contractor has no control.

1.5.3 All direct, indirect, and consequential costs of the City in exercising such rights and remedies will be charged against the Contractor and will be deducted from any monies due the Contractor.

1.5.4 The Contractor shall not be allowed an extension of the contract time because of any delay in performance of the work attributable to the exercise by the City of the City's rights and remedies hereunder.

1.6 COVERED WORK

1.6.1 If any Work is covered contrary to the written directive of the Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense. If required by the Engineer, the

Contractor shall correct all defective work, whether or not fabricated, installed, or completed, or, if the work has been rejected by Engineer, remove it from the site and replace it with non-defective work. The Contractor shall bear all direct, indirect and consequential costs of such correction or removal, including but not limited to fees and charges of engineers, architects, attorneys, and other professionals. Upon failure of the Contractor to correct the deficiency within a reasonable time, the City may, after seven (7) days written notice to the Contractor, correct and remedy any such deficiency and deduct the costs from any monies due the Contractor.

1.6.2 If the Engineer considers it necessary or advisable that covered work be inspected or tested by others, the Contractor, shall uncover, that portion of the work in question, furnishing all necessary labor, material, and equipment. If it is found that such work is defective, the Contractor shall bear all direct, indirect, and consequential costs of such uncovering, exposure, observation, inspection and testing, and of satisfactory reconstruction, (including but not limited to fees and charges of engineers, Contractors, attorneys, and other professionals), and the City shall be entitled to an appropriate decrease in the contract price. If, however, such work is not found to be defective, the Contractor shall be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, and reconstruction.

1.7 BONDS, INSURANCE, ETC.

1.7.1 BONDS

a. Each Bidder shall submit with its Bid, a bid bond issued by a surety authorized to do business in Virginia in the amount of five percent (5%) of his bid total. Alternative forms of bid security such as those described in Va. Code § 2.2-4338 will not be acceptable.

b. The successful Bidder shall be required to provide performance and payment bonds each in the amount of one hundred percent (100%) of the contract price.

1.7.2 INDEMNIFICATION

a. The Contractor shall indemnify the City, its agents, officers, and employees against any damages to property or injuries to or death of any person or persons, including property and employees or agents of the City, and shall defend and indemnify the City, its agents, officers, and employees from any claims, demands, suits, actions, or proceedings of any kind, including workers' compensation claims, of or by anyone, in any way resulting from or arising out to the operations in connection with the work described in the contract, including operations of subcontractors and acts or omissions of employees or agents of Contractor or Contractor's subcontractors. Contractor shall procure and maintain, at Contractor's own costs and expense, any additional kinds and amounts of insurance that, in Contractor's own judgment, may be necessary for Contractor's proper protection in the prosecution of the work.

b. The Contractor shall, at his own expense, appear, defend, and pay all charge of attorneys and other expenses arising there from or incurred in connection therewith, and, if any judgment shall be rendered against the City, and/or its officers, agents, and employees, in any such action, the Contractor shall, at his own expense, satisfy and discharge the same. The Contractor expressly understands and agrees that any performance bond or insurance protection required by this contract, or otherwise provided by the Contractor, shall in no way limit the responsibility to indemnify, keep, and save harmless and defend the City, its agents, officers, and employees as herein provided.

c. The Contractor shall assume all risks and responsibilities for casualties of every description in connection with the work, except that he shall not be held liable or responsible for delays or damage to the work caused by acts of God, acts of Public Enemy, acts of Government, quarantine restrictions, general strikes through the trade, or by freight embargoes not caused or participated in by the Contractor. The Contractor shall have charge and control of the entire work until completion and acceptance of the same by the City.

d. The Contractor shall alone be liable and responsible for, and shall pay, any and all loss or damage sustained by any person or party either during the performance or subsequent to the completion of the work under this agreement, by reason of injuries to persons and damage to property, building, and adjacent work, that may occur either during the performance of the work covered by this contract or that may be sustained as a result of or in consequence thereof, irrespective of whether or not such injury or damage be due to negligence or the inherent nature of the work. Contractor will be responsible to reimburse City for cost incurred for damages caused by the Contractor’s negligence or non-compliance with contract requirements.

e. The Contractor shall bear all losses resulting from the amount or character of the work being different, or

because the nature of the premises on which the work is done is different from what was expected or on account of the weather, or similar causes.

f. The Contractor, however, will not be obligated to indemnify the City, its officers, agents, or employees against liability for damage arising out of bodily injury to persons or damage to property caused by or resulting solely from the negligence of the City or its officers, agents, and employees.

1.7.3 INSURANCE

The Contractor shall not commence work under any contract until he has obtained all the insurance required hereunder and such insurance has been approved by the City; nor shall the Contractor allow any Subcontractor to commence work on his subcontract until all similar insurance has been so obtained and approved. Approval of the insurance by the City shall not relieve or decrease the liability of the Contractor hereunder.

a. Worker's Compensation including Occupational Disease and Employer's Liability Insurance: The Contractor shall take out and maintain during the life of the Contract, Workers' Compensation and Employer's Liability Insurance for all of his employees to be engaged in work on the project under this Contract in an amount no less than the minimum allowed by the State Corporation Commission, and in case any such work is sublet, the Contractor shall require the Subcontractor similarly to provide Workers' Compensation and Employer's Liability Insurance for all of the latter's employees to be engaged in such work.

b. Comprehensive General Liability Insurance: The Contractor shall maintain during the life of the Contract comprehensive general liability insurance as shall protect him and the City of Danville and its officers, agents, and employees from claims for damages for personal injury, including death, as well as from claims for property damage, which may arise from operations under the Contract, whether such operations be by himself or by any Subcontractor, or by anyone directly or indirectly employed by either of them. The amount of such insurance shall be not less than a combined single limit of $1,000,000.00 per occurrence on bodily injury and property damage and $1,000,000.00 aggregate on completed operations. The comprehensive general liability insurance shall provide the following coverage:

- Comprehensive
- Premises--Operation
- Products/Completed Operations Hazard
- Contractual Insurance
- Underground Hazard
- Explosion & Collapse Hazard
- Independent Contractor and Subcontractor
- Broad Form Property Damage
- Personal Injury

c. Automobile liability insurance with minimum combined single limits of $1,000,000.00 per occurrence. This insurance shall include bodily injury and property damage for the following vehicles:

- Owned Vehicles
- Non-owned Vehicles
- Hired Vehicles

d. Umbrella Policy: At the option of the Contractor, primary limits may be less than required, with an umbrella policy providing the additional limits needed. This form of insurance will be acceptable provided that the primary and umbrella policies both provide the insurance coverage's herein required. However, any such umbrella policy must have minimum coverage limits of $3,000,000.00.

e. The Contractor, at his cost, shall effect and maintain in the names of the City, the Engineer and the Contractor, fire, vandalism and extended coverage insurance (or all-risk, builder's risk insurance if approved by the City), upon the entire structure or structures on which the work of this Contract is to be done and upon all material in or adjacent thereto and intended for use thereon to one hundred percent (100%) of the Contract amount. Such insurance may include a deductible provision if the City consents to such provision; however, the Contractor in such case will be liable for paying to the City the amount of such deduction whenever a claim arises. The loss, if any, is to be made adjustable with and payable to the City as trustee for whom it may concern. Written evidence of the

insurance required herein shall be filed with the City not later than ten (10) days following the date of the award of the Contract. A copy of the evidence of insurance shall be filed with the Director of Purchasing.

f. All policies shall name the City of Danville, its officers, agents, and employees as additional insured. This coverage shall be reflected on the Certificates of Insurance (including any endorsements or riders thereto) which will be provided to the City. Each Certificate of Insurance shall require that notice be given to the Director of Purchasing thirty (30) days prior to cancellation or material change in the policies.

g. The insurance required by this Article shall include contractual liability insurance applicable to the Contractor's indemnity obligations under 1.7.2.

h. The Contractor shall either (1) require each of his subcontractors to procure and to maintain during the life of his contract "Subcontractor's Insurance" of the type and in the same amounts as specified in the preceding schedule or (2) insure the activities of his subcontractors in his own policy.

1.8 MATTERS OF LAW

1.8.1 AUTHORITY

a. The Director of Purchasing as the designee of the City Manager has the sole responsibility and authority for placing, issuing, and when necessary modifying each and every invitation to bid, purchase order, or other award issued by the City of Danville. In the discharge of these responsibilities, the Director of Purchasing may be assisted by assigned buyers. No other City officer or employee is authorized to order supplies or services, enter into purchase negotiation, or in any way obligate the government of the City of Danville for an indebtedness. Any purchases contrary to these provisions and authorities shall be void and the City shall not be bound thereby.

b. This procurement process, including appeals or protests, is governed by the "Procurement Code of the City of Danville, Virginia". Copies of the Procurement Code may be obtained by writing the City of Danville Purchasing Department, PO Box 3300, Danville, Virginia 24543. The City of Danville does not discriminate against faith based organizations.

1.8.2 ENFORCEMENT

This Agreement and the performance thereof shall be governed by and enforced under the laws of the Commonwealth of Virginia, and if legal action by either party is necessary for or with respect to the enforcement of any or all of the terms and conditions hereof, then exclusive venue therefor shall lie in the City of Danville, Virginia.

1.8.3 EQUAL EMPLOYMENT

During the performance of the contract, the Contractor agrees as follows:

a. The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. The Contractor also shall not discriminate against any handicapped person in violation of any state or federal law or regulation and shall also post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this additional nondiscrimination clause.

b. The Contractor, in solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that such contractor is an equal opportunity employer.

c. Notices, advertisements, and solicitations placed in accordance with federal law, rule, or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

d. The Contractor will include the provisions of the foregoing paragraphs a, b, and c in every subcontract or purchase order of or over $10,000, so that the provisions will be binding upon each subcontractor or vendor.

e. The Contractor will otherwise comply with all other applicable provisions of local, State, and Federal law.

1.8.4 NON-APPROPRIATION

In the event that sufficient funds are not appropriated by the Council of the City of Danville, Virginia; or, if appropriated, are not allocated or available; or, in the event the amounts due hereunder are to be paid with funds given to the City by another private or government entity, and such funds are not sufficient for continuation of this agreement during any fiscal year after the City's first fiscal year; the City may, without breach, upon prior written notice to Contractor, terminate the contract in whole or in part.

1.8.5 NOVATION

The Contractor shall not assign or transfer, whether by Assignment or Novation, any of its rights, duties, benefits, obligations, liabilities, or responsibilities under the Agreement without the written consent of the City; provided, however, that assignments to banks, trust companies or other financial institutions for the purpose of securing a bond may be made without the consent of the City. Assignment or Novation of the Agreement shall not be valid unless the Assignment or Novation expressly provides that the assignment of any of the Contractor's rights or benefits under the Agreement is subject to a prior lien for labor performed, services rendered and materials, tools, and equipment supplied for the performance of the work under the Agreement in favor of all persons, firms, or corporations rendering such labor or services or supplying such materials, tools, and equipment.

1.8.6 OBSERVANCE OF LAWS

a. The Contractor at all times shall observe and comply with all Federal, State, and City laws, bylaws, ordinances and regulations in any manner affecting the conduct of the work or applying to employees on the project, as well as all orders or decrees which have been promulgated or enacted, by any legal bodies or tribunals having authority or jurisdiction over the work, materials, employees or contract.

b. Federal Immigration Reform and Control Act of 1986: Contractor does not, and shall not during the performance of the contract for goods and services in the Commonwealth knowingly employ an unauthorized alien as defined in the Federal Immigration Reform and Control Act of 1986.

c. Compliance with state law; foreign and domestic businesses authorized to transact business in the Commonwealth.

1. A Contractor organized as a stock or nonstock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership shall be authorized to transact business in the Commonwealth of Virginia as a domestic or foreign business entity if so required by Title 13.1 or Title 50 of the Code of Virginia or as otherwise required by law.

2. A Bidder or offeror organized or authorized to transact business in the Commonwealth of Virginia pursuant to Title 13.1 or Title 50 shall include in its bid or proposal the identification number issued to it by the State Corporation Commission. Any Bidder or offeror that is not required to be authorized to transact business in the Commonwealth of Virginia as a foreign business entity under Title 13.1 or Title 50 or as otherwise required by law shall include in its bid or proposal a statement describing why the Bidder or offeror is not required to be so authorized.

3. Any Bidder or offeror described in the preceding paragraph 2 that fails to provide the required information shall not receive an award unless a waiver of this requirement and the administrative policies and procedures established to implement this section is granted by the City Manager.

4. Any business entity described in the preceding paragraph 1 that enters into a contract with the City pursuant to this article shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth of Virginia, if so required under Title 13.1 or Title 50, to be revoked or cancelled at any time during the term of the contract.

5. The City may void any contract with a business entity if the business entity fails to remain in compliance with the provisions of this article.

1.8.7 PATENTS

The Contractor agrees to indemnify and save harmless the City, and all personnel from all suits and actions of every nature and description brought against them, for or on account of the use of patented appliances,

products, or processes, and he shall pay all royalties and charges which are legal and equitable. Evidence of such payment or satisfaction shall be submitted upon request of the City as a necessary requirement in connection with the final execution of any contract in which such patented appliances, products, or processes are used.

1.8.8 PERMITS

The Contractor shall, at his own expense, secure any business or professional licenses, permits or pay any fees required by the City of Danville or Commonwealth of Virginia to include securing a City of Danville business license.

a. City Business License: Bidders are not required to possess a City Business License in order to submit a bid or to be considered for award of contract. Upon execution of a contract, the Contractor and all subcontractors performing work at the Site shall obtain a City Business License prior to beginning work.

1.8.9 DRUG-FREE WORKPLACE

During the performance of this contract, the contractor agrees to:

a. provide a drug-free workplace for the contractor’s employees;

b. post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

c. state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and

d. include the provisions of the foregoing clauses in every subcontract or purchase order of or over $10,000, so that the provisions will be binding upon each subcontractor or vendor.

“Drug-free workplace” means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this article, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession, or use of any controlled substance or marijuana during the performance of the contract.

1.8.10 SUBCONTRACTS

a. Unless otherwise authorized by the Engineer, the Contractor shall perform with its own organization contract work amounting to at least 30 percent of the original contract value.

b. The Contractor shall furnish a competent superintendent employed by the Contractor’s own organization and any additional project staff that may be needed to assure the performance of the Contract.

c. The Contractor shall obtain written consent from the Engineer prior to subcontracting any work.

d. The Contractor shall be as fully responsible to the City for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them as he is for the acts and omissions of persons directly employed by him.

e. The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to require compliance by each subcontractor with the applicable provisions of the Contract for the improvements embraced in this Contract.

f. Nothing contained in the Contract shall create any contractual relation between any subcontractor and the City.

1.9 SPECIFICATIONS AND PRODUCT DESCRIPTION

1.9.1 When brand names, model numbers, trade names, catalog numbers, or cuts are listed, they are, unless otherwise specified, included for the purpose of furnishing Bidders with information concerning the style, type, or kind

of article desired and a Bidder may offer an article which he certifies to be equal in quality, performance and other essential characteristics. Any available printed material or literature which describes the product being offered for sale shall be included with the bid. The City shall be the sole judge of suitability of substitutes offered. When a formal numbered specification is referred to in this invitation, no deviation will be permitted and the Bidder will be required to furnish articles in conformity with that specification.

1.9.2 After the execution of the Contract, substitution of equipment other than those named in the Contract will be considered for one reason only: that the equipment or material proposed for substitution is equal or superior in construction, efficiency, durability or maintenance to that named in the contract.

1.9.3 To receive consideration, the Contractor's request for substitution must be accompanied by documentary proof of the actual difference in the equipment or material in the form of certified copies of specifications and statement of actual cost difference. Product samples or location of representative installation may be required for submission to receive approval. The City shall receive the full benefit of the saving in cost involved in any substitution.

1.9.4 In all cases, the burden of proof that the equipment or material offered for substitution is equal or superior to that named in the Contract shall rest on the Contractor, and unless the proof is satisfactory to the City, the substitution will not be approved.

1.9.5 It will be considered that the Contractor, in his Proposal, has contacted manufacturers giving a delivery time which will permit completion of the Project within the specified Contract Time.

1.9.6 The Engineer will issue in writing any approved substitutions. In the event the Contractor obtains the Engineer's approval on equipment or materials other than that specified, the Contractor shall, at his own expense, make any changes in the assemblies, structures, or substrates or whatever is necessary to accommodate the substituted equipment or material.

1.9.7 In the event that the Engineer is required to provide additional engineering services as a result of substitution of materials or equipment which are not "or equal" by the Contractor, or changes by the contractor in dimension, weight, power requirements, etc., of the equipment and accessories furnished, or if the Engineer is required to examine and evaluate any changes proposed by the Contractor for the convenience of the Contractor, then the Engineer's charges in connection with such additional services shall be charged to the Contractor by the City.

1.9.8 Structural design shown on the Contract Drawings is based upon typical weights for major items of equipment as indicated on the contract Drawings and specified. If the equipment furnished exceeds the weights of said equipment, the Contractor shall assume the responsibility for all costs of redesign and for any construction changes required to accommodate the equipment furnished, including the Engineer's expenses in connection herewith.

1.9.9 In the event that the Engineer is required to provide additional engineering services as a result of Contractor's errors, omissions, or failure to conform to the requirements of the Contract Documents, or if the Engineer is required to examine and evaluate any changes proposed by the Contractor solely for the convenience of the Contractor, then the Engineer's charges in connection with such additional services shall be charged to the Contractor by the City.

1.10 JOBSITE SAFETY MEASURES

1.10.1 Construction site safety is the responsibility of the Contractor.

1.10.2 The Contractor shall comply with all local, state and federal laws and the Occupational Safety and Health Act in protecting the public, the worksite, and adjacent property from damage. The Contractor shall provide all sheeting, shoring, barricades, warning lights, signs, and fences required for this protection.

1.10.3 The Contractor shall provide ample sanitary facilities and drinking water for the workers in accordance with State and City health regulations.

1.10.4 EXCAVATION

a. No more than two hundred (200) feet of ditch may be opened at any one time without prior approval from the Engineer or his representative.

b. Unless otherwise permitted by the Engineer, all ditches shall be backfilled at the end of each work day

with the exception of the pipe laying area.

c. Ditches left open overnight shall be kept to a minimum, however, any ditches left shall be properly flared or barricaded.

d. All ditches shall be backfilled and protected for each weekend unless prior approval for leaving a ditch open is obtained from the Engineer or his representative.

1.10.5 SHORING

All trenches and other excavations shall be supported to provide safe working conditions. The US Department of Labor Occupational Safety and Health Administration (OSHA) requires that all excavations over five feet deep be sloped, shored, sheeted, braced, or otherwise supported. When soil conditions are unstable, excavations shallower than five (5) feet also must be sloped, supported, or shored. The type and method to be used may vary on each different project and that which will provide the safest working conditions will be utilized.

1.10.6 LIMITATIONS OF WORK AREA

a. The Contractor shall be limited to a specific area for storage of equipment, supplies, and building materials. This area shall be designated by the City and established during the Pre-construction conference.

b. Parking area for employees of the Contractor shall be designated in the vicinity of the project, and it shall be the responsibility of the Contractor to require his personnel to park in this designated area and not in any area which may interfere with the normal operations in and around the construction area or with access and use of the facility by the City.

1.11 COMPLETION SCHEDULE

1.11.1 TIME OF COMPLETION

a. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment are of the essence of the Contract and shall be as set forth in the Supplemental General Conditions.

1.11.2 LIQUIDATED DAMAGES

a. The Contractor and the City recognize that all time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment are of the essence of the Contract and that the City will suffer financial and other losses if the Work is not completed and Milestones not achieved within the Contract Times, as duly modified. The parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by the City if the Work is not completed on time. Accordingly, instead of requiring any such proof, the Contractor and the City agree that as liquidated damages for delay (but not as a penalty), the Contractor shall pay the City the amount stipulated in the Supplemental General Conditions for each calendar day (including weekends and holidays) that expires after the time specified in the Bidding Documents for Substantial Completion, final completion and readiness for payment, and any Milestones (subject to any extensions of time duly granted under the Contract).

b. In the event that the amount of liquidated damages is not stipulated in the Supplemental General Conditions, the amount shall be based on the original contract amount and determined using the following schedule of liquidated damages from Section 108.06 of the VDOT Specifications:

Schedule of Liquidated Damages

Original Contract Amount in Dollars	Daily Charge in Dollars
0.00 - 500,000.00	350
500,000.01 - 2,000,000.00	600
2,000,000.01 - 8,000,000.00	1,350
8,000,000.01 - 15,000,000.00	2,500
15,000,000.01 or more	3,100

c. Liquidated damages for failing to timely attain Milestones, Substantial Completion, and final completion are not additive, and will not be imposed concurrently.

d. The City shall be authorized to deduct liquidated damages owed by the Contractor from any monies due the Contractor.

1.12 TRAFFIC CONTROL

1.12.1 The method of controlling the traffic passing through a work zone and all traffic control and street closed signs and barricades shall be in accordance with the MUTCD and VWAPM. The Contractor shall not close or excavate within the right-of-way of a street or alley without obtaining the approval of and any required permits from the City.

1.12.2 The Contractor shall provide and maintain, at his expense, all signs, cones, stands and flagmen required to control and protect traffic passing through a work zone (note: traffic control may or may not be a separate pay item).

1.12.3 When practical, the Contractor shall keep all street intersections open to traffic. When work is perpendicular to the street, the Contractor shall work in no more than one-half (1/2) of the street width, at one time. The first half of work must be completed and the street passable prior to working in the second half.

1.12.4 The Contractor shall provide the necessary diversion ditches, dikes or temporary culverts required to prevent mud and debris from being washed onto the streets or property. The Contractor's vehicles shall be kept reasonably clean to prevent mud from being deposited on streets.

1.13 PROPERTY MAINTENANCE AND COORDINATION

1.13.1 The Contractor shall notify property owner(s) forty-eight (48) hours prior to working within easements located upon private property in order to coordinate a means of ingress and egress to the work area and determine a storage area for materials.

1.13.2 The Contractor shall maintain a safe and passable pedestrian and vehicular entrance to all private or public property. The Contractor shall notify the property owner(s) twelve (12) hours in advance of the blocking of an entrance. The entrance shall not be blocked for more than twelve (12) hours at any time, without approval of the Engineer. Sidewalks shall remain clear and open at all times during the work, unless approved otherwise by the property owner or City.

1.13.3 Existing lawn, trees, shrubs, fences, utilities, culverts, walls, walks, driveways, poles, signs, right-of-way monuments, mailboxes and the like shall be protected from damage during the work under this contract. Any damage caused to such items shall be repaired or replaced by the Contractor at the Contractor's expense.

1.13.4 Tree and plant roots or branches that may interfere with the work shall be trimmed or cut only with the approval of the property owner. Any trees or plants which are shown to remain and do not interfere with the work but are accidentally damaged by the work shall be repaired or replaced by the Contractor at the Contractor's expense.

1.14 PROGRESS OF WORK

1.14.1 CONFERENCES

Prior to the issuance of a "Notice to Proceed", the Engineer and Contractor, or their duly appointed representatives, shall meet in a pre-construction conference to organize, schedule, and determine responsibilities for the work as it pertains to this project.

1.14.2 PROGRESS CHARTS

a. The Contractor shall within five (5) days or within such time as determined by the Engineer, after date of commencement of work, prepare and submit to the Engineer for approval a practicable schedule showing the order in which the Contractor proposes to carry on the work, the date on which he will start the several salient features (including procurement of materials, plans, and equipment) and the contemplated dates for completing the same.

b. The Contractor shall submit a schedule in accordance with the VDOT Category I Scheduling Special Provision included in the Contract Documents. If the Contractor fails to submit a progress schedule within the time herein prescribed, the Engineer may withhold approval of progress payment estimates until such time as the Contractor submits the required progress schedule.

1.14.3 SCOPE OF WORK

The Contractor shall include in his bid price the placing and furnishing of all materials, labor, tools, equipment, traffic control, and incidentals necessary to complete the work in accordance with the Contract Documents and in accordance with all applicable sections of the VDOT Specifications.

1.14.4 CONTROL OF WORK

a. The Engineer will not be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, and Engineer will not be responsible for Contractor's failure to perform or furnish the work in accordance with the Contract Documents.

b. The Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

c. On all questions relating to quantities, the acceptability of materials and equipment, or work, and the interpretation of the Contract Documents, the decision of the Engineer is final and binding, and shall be precedent to any payment under the contract.

d. All work and material are subject to the inspection and approval of the Engineer. Unless otherwise authorized, work shall be done only in the presence of the Engineer or his authorized representatives. Any work done without proper inspection will be subject to rejection. Inspection of the work shall not relieve the Contractor of the obligation to fulfill all conditions of the contract.

e. The Engineer may require the Contractor to remove from the work any employee that the Engineer may deem incompetent, careless, or insubordinate.

f. Certain items of work may be performed by forces of the City. The Contractor shall cooperate fully in scheduling and coordinating with the Engineer such that no delay will result in the performance of such work. If the Contractor claims that such work delays or causes additional costs, he shall make claims as provided in 1.17, 1.21, and 1.22.

g. The City may award, or may have awarded, contracts to others for other work. The Contractor shall cooperate fully with such other Contractors by scheduling his own work with that to be performed under other contracts as may be directed by the City. The Contractor shall not commit or permit any act, which will interfere with the performance of work by any other Contractor as scheduled. If the Contractor claims that such work delays or causes additional costs, he shall make claims as provided in 1.17, 1.21, and 1.22.

h. Neither the final certificate of payment nor any provision in the contract documents, nor partial or entire occupancy of the premises by the City, shall constitute an acceptance of work not done in accordance with the contract documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall remedy any defects in the work and pay for any damage to other work resulting there from, which shall appear within a period of one year from the date of final acceptance of work unless a longer period is specified. The City will give notice of observed defects with reasonable promptness.

1.14.5 RESPONSIBILITIES OF THE CONTRACTOR

a. Any equipment used on this project must be of sufficient design to accomplish every facet of this work and maintained in a satisfactory working condition throughout the time of construction so as not to delay prompt execution of the project.

b. Any vehicle operated by the Contractor on new pavement or existing pavement remaining in service shall be equipped with pneumatic tires. The Contractor shall take necessary precautions to ensure that the new pavement is not damaged. All damaged areas shall be repaired by the Contractor at his cost, in a manner approved by the City.

c. The Contractor shall remove and dispose of all excavated material and shall take necessary precautions to prevent soiling of curbs and adjacent areas. All soiled areas shall be cleaned immediately in a manner approved by the City.

d. The Contractor will be responsible for investigations of subsurface conditions at the project site, and may obtain soil borings at his own expense.

e. When required by the Engineer, the Contractor shall submit certification that all materials supplied meet the requirements of the specifications.

f. Trees, shrubbery, fences, poles, and all other property shall be protected unless their removal is shown on the drawings or authorized in writing by the Engineer. When it is necessary to cut roots and tree branches, such cutting shall be done under the supervision and direction of the Engineer.

g. The Contractor shall protect any work done from disfigurement by vandals, vehicular traffic, or his own employees. Any damaged work must be repaired, if possible, or removed and replaced as directed by the Engineer. Contractor shall protect fresh laid concrete from all potential hazards.

1.14.6 CONSTRUCTION ENGINEERING

a. The Engineer will furnish, upon request by the Contractor, available data pertaining to centerline, benchmarks, or other reference data in the Engineer's possession necessary for the execution of the work.

b. The Contractor shall, at his own expense, furnish competent construction survey services in accordance with the Specifications and shall be responsible to furnish and maintain accurate, detailed records of such services. The Contractor shall be responsible for all coordination and scheduling of the work. After any construction stakeout or field monumentation activity is completed, the Contractor shall be responsible for all costs to maintain and, whenever necessary, to replace such work except as may be provided in the Specifications or authorized in writing by the Engineer.

c. The Contractor shall identify and protect all existing survey monuments and property corners discovered on the Site. Replacement of damaged, disturbed, removed, or destroyed survey monuments and property corners shall be replaced by a Virginia registered Professional Land Surveyor and shall be at the Contractor's expense.

1.14.7 WORKING HOURS

Unless otherwise authorized by the Engineer, work at the Site shall be performed between the hours of 7:00 a.m. and 5:00 p.m. Monday through Friday. Work shall not be performed at the Site on holidays observed by the City.

1.14.8 USE OF EXPLOSIVES

Blasting or other use of explosives will not be permitted on this Project.

1.14.9 SUBCONTRACTS

a. The Contractor shall not subcontract or sublet any portion of the Work before submitting a written request to the Engineer and subsequently receiving the Engineer's approval. The written sublet request shall be submitted on VDOT Form C-31.

b. No proposed subcontractor shall be disapproved by the City except for cause.

c. The Contractor shall be as fully responsible to the City for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them as he is for the acts and omissions of persons directly employed by him.

d. The Contractor shall cause appropriate provision to be inserted in all subcontracts relative to the work to require compliance by each subcontractor with applicable provisions of the Contract for the improvements embraced in the Contract.

e. Nothing contained in any agreement shall create any contractual relation between any subcontractor and the City.

f. Subcontractors shall maintain required registrations, licenses, and prequalification status as required by the Contract Documents.

1.15 REMUNERATION

1.15.1 QUANTITIES

All quantities indicated on the Bid Form are estimated quantities only and the Contractor will be paid the unit prices for actual quantities measured and approved as stipulated in the Specifications.

1.15.2 MEASUREMENT OF QUANTITY

a. All work completed under the Agreement will be measured by the Engineer or his designee as prescribed in the Specifications.

b. The determination of quantities of items required under the terms of the Agreement or as directed by the Engineer will be made by the Engineer based on measurements taken by him or caused to be taken by him as prescribed in the Specifications.

c. Quantities designated on the Bid Form to be paid on the basis of "Plan Quantity" (i.e. the line item quantity on the Bid Form) will be paid in one or more installments on a pro-rated basis or as otherwise described in the Specifications.

1.15.3 PAYMENTS TO THE CONTRACTOR

a. The City will promptly pay for completed delivered goods or services by the required payment date. The required payment date shall be either: (1) the date on which payment is due under the terms of a contract for the provision of goods or services, or (2) if a date is not established by contract, not more than 45 days after said goods or services are received or not more than 45 days after an invoice for said goods or services is rendered, whichever is later.

b. Separate payment dates may be specified for contracts under which goods or services are provided in a series of partial executions or deliveries to the extent that the contract provides for separate payment for partial execution or delivery.

c. Within 20 days after the receipt of an invoice for completed delivered goods or services, the City will notify the Contractor of any defect or impropriety that would prevent payment by the required payment date.

d. In the event that the City fails to make payment by the required payment date, unless otherwise provided under the terms of the contract, the City will pay any finance charges assessed by the supplier not to exceed one percent per month.

e. Unless otherwise provided under the terms of the contract, interest shall accrue at the rate of one percent per month.

f. In cases where payment is made by mail, the date of postmark shall be deemed to be the date payment is made.

g. The Contractor shall submit invoices to the Engineer on such forms and in the format the Engineer prescribes. The invoice shall be accompanied by all required submittals and documentation including, but not limited to: updated schedules, Buy America certifications, mill test reports, product invoices, inspection forms, quality control documentation, and copies of materials tickets.

h. At the option of the Engineer, partial payment up to the estimated value may be allowed for stored materials not yet incorporated in the Work, pursuant to the following conditions:

1. Equipment or materials stored on the site shall be properly stored, protected, and maintained by the Contractor.

2. The Contractor shall submit, with his monthly progress payment request, bills or invoices from each material or equipment supplier indicating actual payment.

3. The Contractor shall submit evidence that he has paid for materials or equipment stored and for which the Engineer has authorized partial payment and previous progress payments, prior to submission of the next monthly payment request.

i. In making payments, retainage will not be withheld except for cause. As used in this paragraph, “cause” shall be determined by the Engineer and may include (but not be limited to): failure to submit required documentation, unsatisfactory work progress, and other repetitive failures to deliver contract requirements. To the extent required by Va. Code § 2.2-4334, the Contractor will be entitled to the option to use an escrow account procedure for utilization of such funds as described in that Code section.

j. All material and work covered by payments shall thereupon become the sole property of the City, but this provision shall not be construed as relieving the Contractor from the sole responsibility for all material and work upon which payments have been made, or the restoration of any damaged work, or as waiving the right of the City to require the fulfillment of all the terms of the contract.

k. Upon completion, final inspection, and acceptance any amounts withheld shall be paid to the Contractor.

1.15.4 CONTRACTOR PAYMENTS TO SUBCONTRACTORS

a. Within seven (7) days after the receipt of amounts paid to the Contractor by the City for work performed by any subcontractor under this contract, the Contractor shall either:

1. pay the subcontractor for the proportionate share of the total payment received from the City attributable to the work performed by the subcontractor under this contract; or

2. notify, in writing, the City and subcontractor of the contractor’s intention to withhold all or in part of the subcontractor’s payment with the reason for nonpayment.

b. The Contractor shall pay interest to any subcontractor on all amounts owed by the Contractor that remain unpaid after seven (7) days following receipt by the contractor of payment from the City for work performed by the subcontractor under this agreement, except for amounts withheld as stated in (2) above.

c. Unless otherwise provided under the terms of this Agreement, interest shall accrue at the rate of one percent per month.

d. The Contractor shall include in each of its subcontracts a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor.

e. The Contractor's obligation to pay and interest charged to a subcontractor pursuant to this section may not be construed to be an obligation of the City. No contract modification may be made for the purpose of providing reimbursement for such interest charge. A cost reimbursement claim may not include any amount for reimbursement for such interest charge.

1.16 TERMINATION, STOPPAGES, ETC.

1.16.1 POSSESSION PRIOR TO COMPLETION

a. Prior to Substantial Completion of the project, the Engineer may request the Contractor in writing to permit him to use a specified part of the project, which he believes he may use without significant interference with construction of the other parts of the project. If Contractor agrees, he will certify to the City that said part of the project is substantially complete and request the Engineer to issue a certificate of Substantial Completion for that part of the project. Within a reasonable time thereafter, the Engineer shall make an inspection of the part of the Project to determine its status of completion.

b. If the Engineer does not consider that it is substantially complete, the Engineer will notify the Contractor in writing giving his reasons therefore. If Engineer considers that part of the Project is substantially complete, Engineer will execute and deliver a certificate to that effect, fixing the date of Substantial Completion as to that part of the project, attaching thereto a tentative list of items to be completed or corrected before Substantial Completion of the entire project and fixing the responsibility between City and Contractor for maintenance, heat, and utilities as to that part of the project.

c. The City shall have the right to exclude the Contractor from any part of the project, which the Engineer has so certified to be substantially complete, but the City shall allow the Contractor reasonable access to complete items on the tentative list.

1.16.2 SUSPENSION OF WORK

The work may be suspended by the Engineer whenever he deems it is in the best interest of the City to do so.

1.16.3 TERMINATION

a. If the Contractor fails to begin the work under the contract within the time specified, or fails to perform the work with sufficient workmen and equipment or with sufficient materials to insure the completion of said work within the specified time, or shall perform the work in an unsatisfactory manner, or shall neglect or refuse to remove materials or perform anew such work as shall be rejected as defective or unsuitable, or shall discontinue the prosecution of the work, or if the Contractor shall become insolvent or be declared bankrupt, or shall commit any act of bankruptcy or insolvency, or shall make an assignment for the benefit of creditors, or from any other cause whatsoever shall not carry on the work in an acceptable manner, the City shall give notice in writing to the Contractor and his surety of such failure, delay, neglect, refusal, or default.

b. If the Contractor, within a period of seven (7) days after such notice, shall not proceed in accordance therewith, then the City Manager shall, have full power and authority to declare the forfeiture of the contract, and to forfeit the rights of the Contractor. The City Manager at his option may call upon the surety to complete the work in accordance with the terms of this contract or may have the City take over the work, including any or all materials and equipment on the ground as may be suitable and acceptable to the City and may complete the work by or on its own employees, or may enter into a new contract for the completion of the work. All costs and charges incurred by the City, together with the cost of completing the work, shall be deducted from any monies due or which may become due on the contract.

1.17 WORK CHANGES

1.17.1 The City, without invalidating any construction contract, and without notice to any surety, may order changes in the work within the general scope of the contract consisting of additions, deletions, or other revisions, providing the total amount added or eliminated does not exceed twenty-five percent (25%) of the total contract price, or $50,000, whichever is greater. All such changes in the work shall be authorized by change order, and shall be executed under the applicable conditions of the contract documents.

1.17.2 The cost or credit to the City resulting from a change in the work shall be determined by unit prices subsequently agreed upon or by mutual acceptance of a lump sum properly itemized, or on the basis of Cost of the Work plus a Contractor’s Fee for

1.17.3 The term "Cost of the Work" means the sum of costs necessarily incurred and paid by Contractor in the proper performance of the work. Except as otherwise may be agreed to in writing by the City, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized under 1.17.4.

a. Payroll costs for employees in the direct employ of the Contractor in the performance of work under schedules of job classifications agreed upon by the City and the Contractor. Payroll costs for employees not employed full time on the work shall be apportioned on the basis of their time spent on the work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise and payroll taxes. Workers' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing work after regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by the City.

b. Cost of all materials and equipment furnished and incorporated in the work, including costs of transportation and storage thereof, and manufacturer's field services required in connection therewith. All trade discounts, rebates, and refunds that are for installed materials and equipment shall accrue to the City, and the Contractor shall make provisions so that they may be obtained. All trade discounts, rebates, and refunds and all returns from the sale of surplus materials and equipment shall accrue to the Contractor.

c. Payments made by the Contractor to Subcontractors for work performed by Subcontractors. All Subcontracts shall be subject to the provisions of the Contract Documents.

d. Supplemental costs including the following:

1. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the work, and cost less market value of such items used but not consumed which remain the property of Contractor.

2. Rentals of all construction equipment and machinery, whether rented from the Contractor or others, shall be negotiated between the Engineer and the Contractor. These rates shall include all fuel, lubricants, insurance, and other operating expenses as approved by the Engineer. Equipment rental charges shall not exceed the prorated monthly rental rates listed in the current edition of the Compilation of Rental Rates for Construction Distributors. Charges per hour shall be determined by dividing the monthly rates by 176. The rental of any such equipment and machinery shall close when the use thereof is no longer necessary for the work.

3. Sales, consumer, use, or similar taxes imposed by Laws and Regulations in connection with the work and for which Contractor is liable.

4. Deposits lost for causes other than negligence of Contractor, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

1.17.4 The term "Cost of the Work" shall not include any of the following:

a. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnership and sole proprietorships: general managers, engineers, architect, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks and other personnel employed by Contractor whether at the site or in Contractor's principal or branch office for general administration of the work and not specifically included in the agreed upon schedule of job classifications referred to in 1.17.3.a, all of which are to be considered administrative costs covered by the Contractor's Fee.

b. Expenses of Contractor's principal branch offices other than Contractor's office at the site.

c. Any part of Contractor's capital expenses, including interest on the Contractor's capital employed for the work and charges against the Contractor for delinquent payments.

d. Costs due to the negligence of the Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective work, disposal of materials or equipment wrongly supplied and making good any damage to property.

e. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in 1.17.3.c.

1.17.5 The Contractor's Fee allowed to the Contractor for overhead and profit shall be based on the following:

a. for costs stated under in 1.17.3.a & b, the Contractor's Fee shall not exceed ten (10) percent. Contractor's Fee shall not be applied to payroll taxes, social security contributions, or unemployment taxes;

b. for costs stated in 1.17.3.c, the Contractor's Fee shall not exceed five (5) percent;

c. no fee shall be payable on the basis of costs itemized under 1.17.3.d and 1.17.4;

d. the amount of credit to be allowed by the Contract to the City for any such change which results in a net decrease in cost will be the amount of the actual net decrease plus a deduction in Contractor's Fee by an amount equal to ten (10) percent of the net decrease; and

e. when both additions and credits are involved in any one change, the adjustment in Contractor's Fee shall be computed on the basis of the net change in accordance with this article.

1.17.6 The Contract Times may be extended in an amount equal to time lost due to delays beyond the control of Contractor if a claim is submitted in writing to the Engineer for consideration with the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result

of the occurrence of said event. Delays considered beyond the control of the Contractor include, but may not be limited to, acts of neglect by City or others performing additional work as contemplated and specified elsewhere, or fires, floods, labor disputes, epidemics, abnormal weather conditions, or acts of God. No claim for an adjustment in Contract Times will be valid if not submitted in accordance with the requirements of this article 1.17, article 1.21, or article 1.22.

1.17.7 The Contractor may be entitled to compensation for a compensable delay. Compensable delays are critical delays that are not the Contractor's fault or responsibility and are the City's fault or responsibility. Compensable delays may include, but are not limited to:

- Delays due to alteration of quantities or character of work as described in the VDOT Specifications
- Delays due to differing site conditions as described in the VDOT Specifications
- Delays due to an Engineer-ordered suspension
- Delays due to the acts or omissions of the City or its failure to act in a timely manner

1.17.8 If the Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of the City, Contractor, and those for which they are responsible, then the Contractor may be entitled to an equitable adjustment in Contract Times. Such an adjustment will be the Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to:

- Acts or omissions of the Contractor, its agents, employees, subcontractors or suppliers or causes within their control; or conditions that the Contractor could reasonably have foreseen or avoided.
- Floods, tidal waves, tornadoes, hurricanes, lightning strikes, earthquakes, fires, epidemics, or similar natural phenomena.
- Normal adverse weather.
- Extraordinary, unforeseen, and unavoidable delays in material deliveries.
- Acts of government entities other than the Department.
- Unforeseen and unavoidable industry-wide labor strikes affecting the Contractor or its subcontractors' or suppliers' workforce that are beyond the Contractor's control.
- Actions of third parties that are not the responsibility of the Contractor or within its or the Department's control.
- Civil disturbances or sovereign acts of the State, including but are not limited to states of emergency or epidemic or quarantine restrictions.

1.17.9 Concurrent delays are separate delays to critical activities that occur at the same time. When a non-compensable delay is concurrent with a compensable delay, the Contractor shall not be entitled to compensation, but may be entitled to an extension of the Contract Times.

1.17.10 When the Contractor encounters a differing site condition as defined in the VDOT Specifications, then, within a mutually agreed upon timeframe, he shall submit a written request for the additional compensation, excluding anticipated profits, he seeks as a result of such condition. The Contractor's request shall be in sufficient detail to enable the Engineer to determine the basis for and extent of the Contractor's entitlement to additional compensation.

Failure on the part of the Contractor to furnish sufficient documentation or to qualify his reason for failure to do so will delay the determination of entitlement to additional compensation. If such delay occurs, it will in no way relieve the Contractor of his obligation to meet the Contract time limits or other Contract requirements or constitute basis for a claim of any kind.

If the Engineer determines that the conditions materially differ and cause an increase or decrease in the cost required for the performance of any of the Work, an adjustment, excluding anticipated profits, will be made and the Contract may be modified accordingly.

1.18 UTILITY MAINTENANCE AND COORDINATION

1.18.1 Before the work is started, the Contractor shall notify all companies, corporations, municipalities and individuals who own utilities on the construction site, in the right of way or immediately adjacent to the construction area of the work to be performed. The Contractor shall arrange to have the various utilities located and to have them

removed or relocated as required, or to determine the method of protection acceptable to the respective utility owner, if the method of protection is not specified hereinafter. Any cost incurred with removing or relocating utilities shall be borne by the Contractor unless indicated otherwise.

1.18.2 The location of existing utilities shown on the drawings was taken in part from records and in part from field surveys, and may not represent exact location. The Contractor shall excavate to locate buried utilities far enough in advance of pipeline laying to allow for adjustments in any pipe laying both horizontally and vertically.

1.18.3 The work shall be coordinated and performed in a manner so that all existing fire hydrants, without exception, shall be accessible at any time during the work.

1.18.4 The Contractor shall maintain the existing streams, ditches, drainage structures, culverts and flows at all times during the work. The Contractor shall pay for all personal injury and property damage, which may occur as a result of failing to facilitate drainage.

1.18.5 The Contractor shall ascertain the exact location of each existing utility that may interfere with the work. The Contractor may obtain field utility locations by calling "Miss Utility" (1-800-552-7001) forty-eight (48) hours prior to working in the vicinity of existing utilities. If the utilities fail to locate, a second call shall be made providing an additional three (3) hour notice.

1.18.6 The Contractor shall repair or replace any existing sanitary sewer or storm drain utility damaged or misaligned during or due to the work. All other utilities shall be repaired or replaced by the respective Utility Company(s) at the expense of the Contractor.

1.18.7 The Contractor shall coordinate all work within the vicinity of the existing utilities with the respective Utility Company. The work shall be conducted in a manner to avoid unnecessary service interruption and in accordance with the rules and regulations of the respective Utility Company.

1.18.8 When the work is approaching an existing utility or structure that may be in conflict with, or connected to, the work; the Contractor shall excavate test pits to verify the location or elevation of the existing utility or structure. By taking this precaution the Contractor may adjust the work or have the existing utility relocated as necessary. Failure to take such precautions may result in the Contractor adjusting the work or having the existing utility relocated, at the Contractor's expense.

1.18.9 When the existing utilities cross the trench excavation, they shall be adequately supported and protected from damage due to the work as required, specified or directed. All methods for supporting and maintaining the utilities shall be subject to the approval of the respective Utility Company and the City. Any utilities removed as part of the work, and not indicated to be removed or abandoned, shall be restored using materials and installation equal to the utilities' standards.

1.18.10 The Contractor shall exercise care to ensure that the grade and alignment of the existing utility be maintained and that no joints or connections are disturbed. Backfill shall be carefully placed and compacted to prevent the future damage or settlement to the existing utility.

1.18.11 The Contractor shall maintain sewage flow at all times by pumping and/or diversion, or other means acceptable to the Engineer. At no time shall the Contractor allow raw sewage to flow out of the sewerage system to adjacent land or waterways. At no time shall the Contractor cause sewage to surcharge the sewerage system such that sewage backs up into any service connection. In the event such backup occurs, the Contractor shall correct and pay for all damage caused.

1.18.12 No water pipes shall pass through or come in contact with any part of a sewer or storm drain manhole.

1.19 ENVIRONMENTAL PROTECTION

1.19.1 Environmental protection considerations for the purpose of any City construction consist of, but are not limited to, the following factors: natural resources including air, water and land; solid waste disposal; noise; control of toxic substances, hazardous materials and radiation; the presence of chemical, physical and biological elements and agents which adversely effect or alter ecological balances; degradation of the aesthetic use of the environment; impact on daily activities such as traffic, and historical, archeological and cultural resources.

The Contractor shall not use equipment from which factory installed anti-pollution and noise control devices have been removed or rendered ineffective through lack of proper maintenance.

1.19.2 The Contractor shall provide and maintain during the life of the contract, the environmental protection as defined herein. His operation shall comply with all Federal, State, and City laws, ordinances and regulations pertaining to the provisions of this and various other sections of this specification shall also be his responsibility.

1.19.3 The Engineer will notify the Contractor in writing of any perceived or observed noncompliance with the aforementioned Federal, State, or City laws or regulations. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose. The Contractor shall, after receipt of such notice, immediately inform the Engineer of proposed corrective action and take such action as may be approved. If the Contractor fails or refuses to comply promptly, the Engineer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor.

1.19.4 It is intended that the natural resources within the project boundaries and outside the limits of permanent work performed under this contract be preserved in their existing condition or be restored to an equivalent of the existing condition, as approved by the Engineer, upon completion of the work. The Contractor shall confine his construction activities to areas defined by the work schedule, plans, and specifications.

1.19.5 Except in areas indicated to be cleared, the Contractor shall not remove, cut, deface, injure, or destroy trees, shrubs and vegetation without special permission from the Engineer. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorage unless specifically authorized by the Engineer. Where such use is permitted, the Contractor shall be responsible for any damage resulting from such use.

1.19.6 At all times, special measures shall be taken to prevent oil or other hazardous substances from entering the ground, drainage areas and local bodies of water in such quantities as to affect normal use, aesthetics or produce a measurable ecological impact on the area.

1.19.7 Any and all items having apparent historical or archeological interest, which are discovered in the course of construction activities, shall be carefully preserved in place and reported immediately to the Engineer for determination of action to be taken. Work in the immediate area shall be halted and the artifacts or other evidence shall be protected from all damage, including that resulting from the elements, vandalism, and the effects of excavation, demolition, removal and construction operations until such time as qualified officials are able to conduct appropriate investigations. Work in the immediate area shall not proceed until authorization to proceed is obtained from the Engineer. Any such evidence or artifacts found during construction operations or subsequent investigations required by this section shall be delivered into the custody of the City and shall not become the property of the Contractor.

1.19.8 The Contractor shall comply with the Toxic Substance Control Act, PL 94-469, (TSCA) which includes, but is not limited to, the regulation of Polychlorinated biphenyl's (PCBs). Since these chemicals are used in some existing insulation, existing fixed and vehicular transformers on some railroads, the Contractor shall assure proper marking, handling, and disposal of any PCBs in accordance with PL 94-469 and the implementing regulations of 40 CFR 761. In order to avoid any inadvertent violation of the law the following rules shall apply:

a. No Polychlorinated biphenyl (PCB) chemical substance, mixture, equipment, container, sealant, coating, or dust control agent will be used a part of the project except as in accordance with all provisions of the Toxic Substance Control Act (PL 94-469) as interpreted by the rules and regulations of 40 CFR 761.

1.19.9 Trash shall be picked up and placed in containers, which shall be emptied on a regular schedule. All handling and disposal shall be so conducted as to prevent contamination of the site and other areas and shall not be disposed of in wetlands and shall not be burned. On completion, the area shall be left clean and re-vegetated as described in required. Rubbish and debris shall be transported off the construction site and disposed of by the Contractor in a manner that complies with Federal, State, and City requirements. A permit or license and the location of the disposal area shall be provided prior to transporting any material off the project area. Waste materials shall not be burned within the project area.

1.19.10 Dust shall be kept down at all times including non-working hours, weekends, and holidays. Soil at the site, haul roads, and other areas disturbed by the Contractor's operations and materials stockpiled for the project shall be sprinkled or treated with dust suppressers or covered as to control dust. No dry power brooming will be permitted.

Vacuuming, wet mopping, wet sweeping or wet power brooming shall be used instead. Only wet cutting of concrete, concrete and asphalt will be permitted.

1.19.11 The Contractor shall comply with all applicable provisions of the National Emission Standards for Asbestos (40 CFR 61 Subpart B).

1.19.12 The Contractor shall inspect all vehicles for dirt prior to their leaving the construction site; dirt, soil, and rubble likely to be dislodged during transit shall be removed from the trucks and other vehicles prior to leaving the site. He shall insure that all equipment transporting material that may become airborne is covered.

1.20 EROSION CONTROL

1.20.1 The erosion control system shall protect adjacent properties, shall be in accordance with the Virginia Erosion and Sediment Control Handbook (VESCH) and City ordinances, and shall be approved by the Engineer. All erosion control measures shall be placed prior to commencement of grading. All elements of the erosion control system shall be sized and designed in accordance with the criteria specified in the VESCH.

1.20.2 Temporary measures shall be applied throughout the construction of the project to control erosion and to minimize siltation of adjacent property, streets, drainage ditches, storm drains and waterways. The Contractor shall comply with all minimum standards on the drawings and specified herein. Disturbed areas that are to be left unfinished for more than thirty (30) days shall be seeded temporarily within seven days of completion of grading operations.

a. Stockpiled material shall be surrounded at the base with a temporary sediment barrier. Slopes of stockpiled material shall not exceed 2 to 1.

b. Vehicles leaving the construction site shall be cleaned to remove mud prior to entrance onto public rights of way.

c. The Contractor shall be responsible for weekly inspection of temporary erosion control system to insure maximum effectiveness of the protective measures. Any damaged areas of the erosion control system shall be immediately repaired.

1.20.3 Minimum required measures (applicable VESCH standard):

a. Silt fence (3.05)

b. Storm drain inlet protection (3.07)

c. Temporary seeding (3.31)

d. Temporary Construction Entrance (3.02)

1.20.4 In the event the Contractor repeatedly fails to satisfactorily control erosion and siltation, the City reserves the right to employ outside assistance or to use its own forces to provide the erosion control measures indicated and specified. The cost of such work, plus related engineering costs, will be deducted from monies due the Contractor for other work.

1.20.5 RIPRAP

a. Materials: Riprap shall be dry riprap, Class II, except where Class III is indicated, as defined in Section 414 of the VDOT Specifications. The diameter of the largest stone shall not exceed 2.75 feet for Class III Riprap, and 2.25 feet for Class II Riprap.

b. Riprap shall be placed in accordance with Section 414 of the VDOT Specifications. The riprap shall be placed so that it produces a dense well-graded mass of stone with a minimum of voids. Riprap shall be placed on filter fabric. Materials for filter fabric shall be approved by VDOT and installed in accordance with the manufacturer’s instructions. The desired distribution of stones throughout the mass may be obtained by selective loading at the quarry, controlled dumping of successive loads during final placing, or by a combination of these methods. The riprap shall be placed to its full thickness in one operation. The riprap shall not be placed in layers. The riprap shall not be placed by dumping into chutes or similar methods, which are likely to cause segregation of the various stone sizes. Care should be taken not to dislodge the underlying material when placing the stones.

c. The finished slope shall be free of pockets of small stone or clusters of large stones. Hand placing may be necessary to achieve the required grades and a good distribution of stone sizes. Final thickness of the riprap blanket shall be within plus or minus 1/4 of the specified thickness. The thickness shall be 2.75 feet for Class III riprap, and 2.25 feet for Class II riprap.

1.20.6 Where indicated, soil stabilization mat shall be provided in ditches in accordance with the details on the drawings and VDOT Standard EC-3B. The fabric shall conform to Sections 244 and 606 of the VDOT Specifications and the manufacturer's recommendations. The soil stabilization mat material shall be as approved by VDOT for velocities of 7 to 10 feet per second. The mat shall extend under the riprap at channel ends per manufacturer's recommendations.

1.21 CLAIMS MANAGEMENT PROCESS

1.21.1 The City's contractual dispute resolution policy promotes a cooperative attitude between the Engineer and Contractor. Emphasis is placed on resolving issues while still current, at the project level or through the partnering process. Open sharing of information is encouraged by all parties involved so the information provided completely and accurately reflects the issues and facts.

1.21.2 In the event that an issue cannot be resolved through normal administrative change processes prescribed in the Contract Documents, the procedure for consideration of contractual claims shall be as follows:

a. Any contractual claim by the Contractor against the City, whether for money or other relief, not disposed of by mutual agreement or through normal administrative change procedures prescribed in the Contract Documents, shall be submitted in writing no later than sixty (60) days after final payment as prescribed in this section; however, a written statement of the Contractor's intention to file such a claim shall have been submitted to the Engineer at the time of the occurrence or beginning of the services upon which the claim is based. The written statement shall clearly inform the Engineer that it is a "notice of intent to file a claim." Submission of a notice of intent to file a claim as specified shall be mandatory. Failure to submit such notice shall be a conclusive waiver of such claim by the Contractor. An oral notice or statement will not be sufficient nor will a notice or statement after the event. Oral statements recorded in meeting minutes also will not be sufficient.

b. In addition, at the time of each and every occurrence or prior to providing the services upon which any claim or subsequent action will be based, the Contractor shall furnish the Engineer an itemized fee proposal for which additional compensation will be claimed. The Contractor shall keep a separate record of actual cost for the services. Failure on the part of the Contractor to afford the Engineer proper records of actual costs will constitute a waiver of a claim for such extra compensation except to the extent that it is substantiated by the Engineer's records.

c. The filing of notice of intent to file a claim by the Contractor and the keeping of cost records by the Contractor shall in no way establish the validity of a claim. The data furnished by the Contractor shall be subject to a complete audit by the City or its authorized representative if they are to be used as a basis for claim settlement.

d. Upon completion of the Contract, the Contractor may, within sixty (60) days from the date of final payment, submit to the City Manager, with a copy to the Director of Finance, a written claim for the amount he deems he is entitled to under the Agreement. However, written notice of the Contractor's intention to file such a claim shall have been given to the Engineer as prescribed in paragraph (a). The final payment date shall be that date the City certifies that it has reviewed, approved, and sent forward the final estimate to the Finance Department for payment. The written claim shall set forth the facts upon which the claim is based and shall include all pertinent data and correspondence that may substantiate the claim.

e. Within thirty (30) days from receipt of the claim, the City Manager will appoint a disinterested person or panel (the "Investigator") to conduct an investigation into the claim. Such investigation shall include a hearing at which Contractor may present any additional pertinent information prior to the conclusion of the investigation. The investigator shall notify the Contractor in writing of the time and date of the hearing, such time and date to be within thirty (30) days of receipt of the claim, unless a later time and date is requested by the Contractor.

f. Within thirty (30) days from the date of the hearing, the Investigator will investigate the claim, including the additional facts presented, and notify the Contractor in writing of the final decision.

g. The Contractor may not institute legal action prior to receipt of the Investigator's decision on the claim, unless the Investigator fails to render such decision within thirty (30) days of the date of the hearing. In the case that the Investigator fails to render a final decision within the time specified, it shall be deemed a final decision denying the Contractor's claim by the City.

h. The final decision resulting from this claims procedure shall be final and conclusive unless the Contractor institutes legal action within six (6) months of the date of final decision.

i. Any monies that become payable as the result of claim settlement after payment of the final estimate or final audit dispute resolution will not be subject to payment of interest unless such payment is specified as a condition of the claim settlement.

j. Nothing herein shall preclude a contract from requiring submission of an invoice for final payment within a certain time after completion and acceptance of the work or acceptance of the goods. Pendency of claims shall not delay payment of amounts agreed due in the final payment.

k. The only entity that may assert a contractual claim against the City is the Contractor. Subcontractors or other entities under a subcontract with the Contractor may not assert a contractual claim against the City.

1.22 EXTENSIONS TO CONTRACT TIMES

a. The Engineer will not consider any request for an extension of Contract Times that is based on a claim that the time limits established in the Contract Documents is insufficient to complete the Work.

b. When Contract execution is not within the time limit indicated in the Bidding Documents or when the Contractor is unable to commence work because of any failure of the City, the Contractor will be given an extension of time based on the number of days delayed beyond said time limit. No time extension will be allowed for a delay in the date of Contract execution when the delay is the fault of the Contractor.

c. The Engineer will determine if an extension of the Contract Times is warranted by additions or alterations to the Contract. The Contractor shall inform the Engineer, in writing, of a request for time extensions. The written request shall include supporting data for any such request for time extension due to quantity additions or additional or altered work.

d. During prosecution of the work, the Contractor shall identify the causes for any delays attributable to conditions he deems to be beyond his control and shall identify the particular construction operations affected, their criticality to project milestones or overall Contract completion, and the significant dates that encompass the periods of delay. The Contractor shall furnish all such information necessary for the Engineer to make an adequate evaluation of any request received from the Contractor for an extension of the Contract Times within 3 days of experiencing such a delay.

e. The Contractor shall take into consideration normal conditions considered unfavorable for the prosecution of the work, and shall place sufficient workers and equipment on the project to complete the work in accordance with the Contract Times specified in the Contract Documents.

f. If the Contract identifies a contract-specific Notice to Proceed date and the Contract is not executed by that date, the Contractor will receive an extension of time equal to the number of days between the contract-specific Notice to Proceed date and the eventual date of Contract execution.

g. If the Notice to Proceed date is selected by the Contractor and after prior approval the Engineer directs the Contractor not to begin work on that date, the Contractor will receive an extension of time equal to the number of days between the Contractor's selected Notice to Proceed date and the eventual date the Engineer informs the Contractor that he may commence the work.

h. The Engineer may give consideration for extension of time when a delay occurs due to unforeseen causes beyond the control of or without the fault or negligence of the Contractor. However, consideration will not be given to extensions of time attributable to normal adverse weather conditions or conditions resulting from normal adverse weather. As used in this paragraph, “normal adverse weather” is defined as that which is not considered extraordinary or catastrophic and is not reasonably conducive to the Contractor progressively prosecuting critical path work under the Contract. Weather events considered extraordinary or catastrophic include, but are not limited to tornados, hurricanes, earthquakes, and floods that exceed a 25-year storm event as defined by National Oceanic and Atmospheric Administration (NOAA) for the NOAA data gathering location that is nearest the project site.

i. ENGINEER-ORDERED WORK SUSPENSIONS

1. If the Engineer orders the Contractor in writing to suspend performance of all or any portion of the Work for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the Contractor believes that additional compensation or an extension of the Contract Times is due as a result of such suspension, the Contractor shall submit to the Engineer a written request for adjustment in accordance with the applicable provisions of the General Conditions within 7 days after receipt of the notice to resume work. The Contractor’s request shall set forth the reasons and support for such adjustment.

2. Upon receipt, the Engineer will review the Contractor’s documentation and evaluate the Contractor’s request. If the Engineer agrees that the cost or time required for the performance of the Contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Contractor, his suppliers, or subcontractors at any tier, and was not caused by weather, the Engineer will make an adjustment (excluding profit and consequential damages) and modify the Contract in writing accordingly. The Engineer will notify the Contractor of the determination regarding whether or not an adjustment of the Contract is warranted.

j. No Contract adjustment will be allowed unless the Contractor has submitted the request for adjustment within the time and in the manner prescribed herein.

k. No Contract adjustment will be allowed to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for or excluded under any other term or condition of the Contract

END OF SECTION.

SUPPLEMENTAL GENERAL CONDITIONS

PART 1 - GENERAL

1.1 SCOPE OF WORK

The Contractor shall provide all labor, material, equipment, supervision, and incidentals required to perform the Work of the Project as described herein. The Work is described in the Contract Documents and generally consists of, but may not be limited to, the following:

Regular excavation and grading. Construction of sidewalk along the south side of Kemper Road between S Main Street and Edmonds Street (approximately 1880 feet). Several concrete driveway entrances shall be replaced. Continental crosswalks shall be installed at locations as shown on plans.

Related and incidental work including construction safety; construction surveying, stakeout, and accurate layout of the work; coordination between other contractors, agencies, utility owners, City departments, and private property owners; non-destructive excavation and location of subsurface objects and utilities; preserving, protecting, and supporting existing utilities; selective demolition of surface improvements including highways and other public works; traffic control and maintenance of traffic in accordance with VWAPM; environmental protection, erosion, and sedimentation control; disposal of surplus or waste materials; trench excavation and restoration of paved and unpaved areas disturbed by contract activities; the protection or replacement of existing fencing, retaining walls, and landscaping; removal of obstructions; minor utility relocation, adjustment, and protection; grading, soil scarification, moisture control, backfill, and compaction; replacement of turf, roadside vegetation, trees, and other landscape items.

1.2 TIME OF COMPLETION

A. **Substantial Completion** shall be within **270 calendar days** of the date of the City's issuance of Notice to Proceed.

B. **Final Completion of the Work** shall be within **300 calendar days** of the date of the City's issuance of Notice to Proceed.

1.3 LIQUIDATED DAMAGES

A. Liquidated damages for failure to attain Milestones, Substantial Completion, or final completion and readiness for payment shall be **three hundred fifty (350) dollars per day** including Saturdays, Sundays, and holidays.

1.4 EXTENSIONS TO CONTRACT TIMES – SCHEDULE IMPACT ANALYSIS REQUIRED

A. The Engineer will not consider any request for an extension of Contract Times unless such request includes a Schedule Impact Analysis as described in the attached VDOT Special Provision for Progress Schedules For Category I Projects attached hereto and is otherwise in conformance with the applicable requirements of the General Conditions.

1.5 TERMINATION

A. In addition to the provisions of the General Conditions pertaining to contract termination, the following provisions also apply:

1. Termination for Convenience: The City may terminate this contract, in whole or in part, at any time by written notice to the Contractor when it is in the City's best interest. The Contractor shall be paid its costs, including contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to City to be paid the Contractor. If the Contractor has any property in its possession belonging to the City, the Contractor will account for the same, and dispose of it in the manner the City directs.

2. Termination for Default [Breach or Cause]: If the Contractor does not deliver supplies in accordance with the contract delivery schedule, or, if the contract is for services, the Contractor fails to perform in the manner called for in the contract, or if the Contractor fails to comply with any other provisions

of the contract, the City may terminate this contract for default. Termination shall be effected by serving a notice of termination on the contractor setting forth the manner in which the Contractor is in default. The Contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner of performance set forth in the contract.

If it is later determined by the City that the Contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of the Contractor, the City, after setting up a new delivery of performance schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

B. Opportunity to Cure: The City in its sole discretion may, in the case of a termination for breach or default, allow the Contractor ten (10) days or an otherwise appropriately short period of time in which to cure the defect. In such case, the notice of termination will state the time period in which cure is permitted and other appropriate conditions.

C. If Contractor fails to remedy to City's satisfaction the breach or default of any of the terms, covenants, or conditions of this Contract within ten (10) days (or as otherwise specified in the Contract Documents, whichever is stricter) after receipt by Contractor of written notice from City setting forth the nature of said breach or default, City shall have the right to terminate the Contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude City from also pursuing all available remedies against Contractor and its sureties for said breach or default.

D. Waiver of Remedies for any Breach: In the event that City elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this Contract, such waiver by City shall not limit City's remedies for any succeeding breach of that or of any other term, covenant, or condition of this Contract.

E. Termination for Default (Construction): If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will ensure its completion within the time specified in this contract or any extension or fails to complete the work within this time, or if the Contractor fails to comply with any other provisions of this contract, the City may terminate this contract for default. The City shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. In this event, the City may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the City resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the City in completing the work.

F. The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause if:

1. the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include: acts of God, official acts of the City, acts of another Contractor in the performance of a contract with the City, epidemics, quarantine restrictions, strikes, freight embargoes; and

2. the contractor, within ten (10) days (or as otherwise prescribed in the Contract Documents, whichever is more restrictive) from the beginning of any delay, notifies the City in writing of the causes of delay. If in the judgment of the City, the delay is excusable, the time for completing the work shall be extended. The judgment of the City shall be final and conclusive on the parties, but subject to appeal under applicable claims and dispute resolution provisions.

G. If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the City.

1.6 The Contractor shall provide and maintain during the entirety of the project a minimum of two (2) EEO bulletin boards in sufficient size and construction to contain each poster listed in Appendix 17 B of the LAP Manual. The printable posters may be found at https://www.fhwa.dot.gov/programadmin/contracts/poster.cfm

The cost of this work shall not be paid for separately and shall be incidental to the Contract.

1.7 All excavation is unclassified. The Engineer makes no claims or assumptions as to the nature of any existing project soils. Geotechnical information, if provided, is provided solely for informational purposes and shall not be taken to provide an accurate representation as to the subsurface characteristics of the project site.

1.8 The Contractor shall accommodate the City of Danville Public Works Department during snow response and other inclement weather activities including but not limited to making traffic control modifications as needed.

1.9 The Contractor shall provide one authorized person on site who is an employee of the Contractor to be responsible to direct and supervise the work of subcontractors any time subcontractors are performing work.

1.10 The Engineer or the City's Inspector is authorized to stop work due to an apparent safety hazard or violation without war-ranting contract time extensions. This shall not in any way be construed to either relieve the Contractor of his sole responsibility for safety or hold the City responsible for the safety of the work zone.

PART 2 - COMPLIANCE

2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

2.2 All guides, manuals, instruments, documents, plans, standards, bulletins, memoranda, and other publications that may be referenced herein but that may not be physically incorporated herein are hereby incorporated by reference as if fully set forth and physically incorporated herein.

2.3 The Contractor shall comply with the provisions of the following:

A. The Virginia Supplement to the 2009 Manual on Uniform Traffic Control Devices, 2011 Edition with Revision 1 dated September 30, 2013 which may be obtained online at https://www.vdot.virginia.gov/media/vdotvirginiagov/doing-business/technical-guidance-and-support/technical-guidance-documents/traffic-operations/Revision_1_Entire_Supplement.pdf)

B. The 2009 MUTCD with Revision Numbers 1 and 2 incorporated which may be obtained online at https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/mutcd2009r1r2edition.pdf

C. The 2011 Virginia Work Area Protection Manual (the "VWAPM") with Revision 2.1 dated November 2020 (https://www.vdot.virginia.gov/media/vdotvirginiagov/doing-business/technical-guidance-and-support/technical-guidance-documents/traffic-operations/2011_WAPM_REV_2_1.pdf)

D. The Virginia Erosion and Sediment Control Handbook, Third Edition, 1992, (the "VESCH") which may be obtained from the Virginia Department of Environmental Quality (DEQ) or online at: https://www.deq.virginia.gov/our-programs/water/stormwater/stormwater-construction/handbooks

E. Contract change orders and work change directives

F. Supplemental Agreements and modifications to the Agreement

G. The Agreement

H. Addenda, with those of later date having precedence over those of earlier date

I. Special Provisions

J. Supplemental Specifications

K. The Plans:

The project work may be detailed and described by physically incorporated or attached plans, sketches, drawings, illustrations, figures, images, and details in addition to such that are incorporated by reference or contained within other instruments incorporated by reference.

All are referred to herein, collectively, as the Plans or the Project Plans. It is understood that the Plans may be updated, amended, changed, subtracted-from, or added-to from time to time by addendum, supplemental agreement, change order, and as required by the Engineer.

The Plans include the following:

The plans, sketches, drawings, illustrations, figures, images, details, and standards:

1) incorporated herein elsewhere by reference or which are a part of other instruments incorporated herein elsewhere by reference;

2) incorporated by addendum, supplemental agreement, or change order; and

3) the following (attached under separate attachment—see Attachments)

- Plans entitled PLANS FOR CONSTRUCTION OF PROPOSED ROADWAY IMPROVEMENTS: #TAP21 KEMPER ROAD IMPROVEMENTS PROJ. #TA21-108-468 UPC #117942 prepared by the Office of the City Engineer

L. The Virginia Department of Transportation 2020 Road and Bridge Specifications including the 2022 Supplement, both of which may be obtained online at https://www.vdot.virginia.gov/doing-business/technical-guidance-and-support/technical-guidance-documents/road-and-bridge-specifications/

M. The VDOT 2016 Road and Bridge Standards, including all revisions as of April 2024, which may be obtained online at https://www.vdot.virginia.gov/doing-business/technical-guidance-and-support/technical-guidance-documents/road-and-bridge-standards/

N. The Virginia Uniform Statewide Building Code (USBC), as amended.

O. The International Building Code (IBC)

2.4 TITLE VI NON-DISCRIMINATION

The City of Danville in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 US.C.§§ 2000d to 2000d-4) and the Regulations, hereby notifies all Bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

A. U.S. DOT 1050.2A -- Appendix A

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

1. Compliance with Regulations: The Contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, the Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Nondiscrimination: The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all

solicitations, either by competitive bidding, or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the Contractor's obligations under this contract and the Acts and the Regulations relative to Nondiscrimination on the grounds of race, color, or national origin.

4. Information and Reports: The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

   - withholding payments to the Contractor under the contract until the Contractor complies; and/or
   - cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

B. U.S. DOT 1050.2A -- Appendix E

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “Contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Nondiscrimination Authorities:

1. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
2. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
3. Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
4. Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
5. The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
6. Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
7. The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
8. Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of

disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 -- 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;

9. The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
10. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non- discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
11. Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
12. Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

END OF SECTION

GENERAL ADMINISTRATIVE REQUIREMENTS

PART 1 - GENERAL

1.1 SUBMITTALS

A. During performance of the contract, the Contractor shall submit all forms and other data as required by the Contract Documents or as requested by the City or VDOT. The Contractor's attention is called to the following required submittals regarding Civil Rights compliance. This list is not meant to be all-inclusive and is provided only as a convenient reference:

1. Submit, within fourteen (14) business days after Contract execution, copies of all subcontract agreements. Submit copies of such subcontract agreements in their entirety and accompanied by completed VDOT Form C-112.

2. If any additional subcontract agreement is executed during the performance of the Contract, submit such subcontract agreement as stated in paragraph (1) upon execution.

3. Submit VDOT Form C-63 quarterly and according to the reporting schedule shown in the form.

4. Submit VDOT Form C-64, Company EEO Meeting Minutes, and EEO Officer Designation if not already submitted to VDOT within the last six months. Submit every six months thereafter.

5. Submit VDOT form C-57 for the first three (3) months of work activity and once by each August 15th thereafter.

6. Submit VDOT Form C-28 prior to second application for payment. Submit every 90 days thereafter.

7. Submit certified original (not photocopies) payroll records and VDOT form C-56 monthly with application for payment.

8. Submit a DBE Activity Narrative as described in VDOT Specifications Section 107.14 within thirty (30) days after the Notice to Proceed and along with the first application for payment.

9. Submit the name and contact information of the Contractor's DBE Liaison as described in VDOT Special Provision for Section 107.15.

10. If trainees are required on the Contract, submit form C-65 prior to a trainee beginning work and VDOT form C-67 weekly for trainees if trainees are required.

11. Submit all other required submittals and documentation as specified in the Contract Documents and as required by the Project Manager.

B. Invoices/Applications for Payment

1. Contractor shall submit application for payment on the forms and in the format prescribed by the project manager or Engineer. All applications for payment shall include an overall summary of the total amounts requested for each task/project/work location along with detailed, itemized invoices for each. At a minimum, the itemized invoices shall include the date the task was issued or authorized, the date work was completed, the task order or service request number, address and location of work, line item quantity totals and unit prices from the contract, and any material invoices, concrete load tickets, stone tickets, photo of the completed work, Contractor's daily work reports, quality control documentation including test reports, Buy America and other required material certifications, and other backup documentation that may be required by the specifications or requested by the

project manager or the Engineer.

2. Requests for payment shall be submitted on a calendar month basis encompassing the period beginning on the first day of the month and ending on the last day of the month.

3. All materials tickets and invoices for materials including, but not limited to: stone weight tickets, concrete tickets, asphalt weight tickets, pipe materials, structures, and all other permanently incorporated products and materials shall be labeled with the Project UPC Number, the material specification number, and other information so as to clearly link the material to the precise location and project in which the material was incorporated.

C. Materials

1. All proposed materials shall be listed on VDOT Form C-25 (Source of Materials) and submitted to the City Project Manager for review and approval prior to ordering or incurring any cost for the material.

2. All proposed materials shall be from an approved source of materials or be accompanied by a Manufacturer's Certification/Locality Certifications.

a. Manufacturer's Certifications/Locality Certifications: For products that are not accepted through an acceptance test or are on an approved materials/products list, two other ways VDOT accept the materials by manufacturer's certification or Local Certification Tracking Numbers (LT). This shall be accompanied by shipping documents, manifest, shipping list, and invoice and other extensive documentation. See LAP Manual for further details.

3. Submit for Engineer review and approval all proposed materials, products, structure drawings, shop drawings, sources of materials, and all other required submittals prior to ordering.

4. Verify all existing field conditions and all existing and proposed dimensions, inverts, elevations and other required measurements for conformance with plans and to ensure constructability of the design intent prior to ordering any materials. Provide communication to the Engineer detailing results of such verification including any noted irregularities and proposed handling of such irregularities and await Engineer's concurrence or instruction prior to ordering materials. Materials to be ordered that are prefabricated that rely on relatively precise plan dimensions such as precast manholes, drainage structures, special drainage structures, and similar items shall have all existing and proposed dimensions, elevations, locations verified by the Contractor to ensure correctly sized and dimensioned items are provided to fit the design intent. Contractor shall submit written certification and may be required to provide evidence that all such items have been verified along with all working/shop drawing submittals.

D. Submit all other required submittals and documentation as specified in the Contract Documents and as required by the Project Manager.

PART 2 - CITY PROJECT REPRESENTATIVES

Karen Black, P.E., Chief Engineer	434-799-5019 ext. 2532
Christopher E. Meadows, Construction Inspections	434-799-5019 ext. 2534
Brian L. Dunevant, P.E., City Engineer	434-799-5019 ext. 2530

END OF SECTION

VDOT SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS

The attached special provisions, special provision copied notes, and supplemental specifications shall apply to this contract. The 2022 Supplement to the 2020 VDOT Road and Bridge Specifications shall also apply to this contract and may be found online at:
https://www.vdot.virginia.gov/doing-business/technical-guidance-and-support/technical-guidance-documents/road-and-bridge-specifications/

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cn100-000051-05 VDOT SUPPLEMENTAL SPECIFICATIONS (SSs), SPECIAL PROVISIONS (SPs) AND SPECIAL PROVISION COPIED NOTES (SPCNs)

Where Virginia Department of Transportation (VDOT) Supplemental Specifications, Special Provisions and Special Provision Copied Notes are used in this contract, the references therein to "the Specifications" shall refer to the *Virginia Department of Transportation Road and Bridge Specifications*, dated 2020 and the Supplement thereto, dated 2022. References to the "Road and Bridge Standards" shall refer to the *Virginia Department of Transportation Road and Bridge Standards*, dated 2016 with revisions issued online as of the advertisement date for this project incorporated. References to the "Virginia Work Area Protection Manual" shall refer to the 2011 edition of the *Virginia Work Area Protection Manual with Revision Number 2.1* incorporated, dated November 1, 2020. References to the "MUTCD" shall refer to the 2009 edition of the *MUTCD with Revision Numbers 1 and 2* incorporated, dated May 2012; and the 2011 edition of the *Virginia Supplement to the MUTCD with Revision Number 1* dated September 30, 2013.

Where the terms "Department", "Engineer", "Contract Engineer", "Construction Engineer", Materials "Engineer", and "Operations Engineer" appear in VDOT Supplemental Specifications, Special Provisions and Special Provision Copied Notes used in this contract and the VDOT publications that each references, the authority identified shall be according to the definitions in Section 101.02 of the *Virginia Department of Transportation Road and Bridge Specifications*, dated 2020. Authority identified otherwise for this particular project will be stated elsewhere in this contract.

VDOT Supplemental Specifications, Special Provisions and Special Provision Copied Notes used in this contract and the VDOT publications that each reference are intended to be complementary to the each other. In case of a discrepancy, the order of priority stated in Section 105.12 of the *Virginia Department of Transportation Road and Bridge Specifications*, dated 2020 shall apply.

VDOT Special Provision Copied Notes in this contract are designated with "(SPCN)" after the date of each document. VDOT Supplemental Specifications and Special Provision Copied Notes in this contract are designated as such above the title of each document.

The information at the top and left of each VDOT Special Provision Copied Note in this contract is file reference information for VDOT use only. The information in the upper left corner above the title of each VDOT Supplemental Specification and VDOT Special Provision in this contract is file reference information for VDOT use only.

7-1-22 (SPCN)

cn103-000100-00 **SECTION 103.02—AWARD OF CONTRACT** of the Specifications is replaced in its entirety with the following:

103.02 – Award of Contract

The Board, or the Commissioner as authorized under § 33.2-209 of the Code of Virginia, will award the Contract to the lowest responsive and responsible Bidder without discrimination on the grounds of race, color, gender, or national origin, or other basis prohibited by law. In the event of a tie bid, the tie will be decided by lot.

The award date will not be later than midnight on the 60th day after the opening of bids. If the Board, or the Commissioner where authorized by law, has not awarded the Contract within this period due to any circumstances not attributable to the bidder, the bidder may withdraw his bid without penalty or prejudice unless the time limit is extended by mutual consent.

After approval for the award of contracts, the Department will provide written notice of award to the successful bidder and will post the Ballots on the Department's bidding webpage. The Ballot serves as public Notice of Award for a contract. The date of the Notice of Award is the "Approved" date appearing at the top of the Ballot that lists the Contract.

6-25-24 (SPCN)

cn105-000140-00 **SECTION 105.14—MAINTENANCE DURING CONSTRUCTION** of the Specifications is amended by the following:

Section 105.14(a)3 – Flagging Traffic is replaced with the following:

3. **Flagging Traffic:** Flaggers shall be able to communicate to the traveling public in English while performing the job duty as a flagger at the flagger station.

   All flaggers shall possess a valid, current flagger certification card, be it a physical or electronic card, **at all times while performing flagging duties**.

   Flaggers shall be certified by the VDOT Basic or Intermediate Work Zone Traffic Control Training course or by the ATSSA's classroom Flagger Certification Program.

   The following constitutes a valid flagger certification card:

   - Cards issued by VDOT following completion of the Basic Work Zone course;
   - Cards issued by VDOT following completion off the Intermediate Work Zone course;
   - Cards issued by ATSSA following completion of a Flagger course;
   - Cards issued by VDOT following completion of the Flagger-only course, provided the cards were issued on or before December 31, 2024, and have not yet reached the expiration date (two years after date of issuance).

   Flaggers who fail to possess a valid, current, flagger certification card, or refuse to allow inspection of same upon request, shall be removed from the flagging site, and operations requiring flagging shall be suspended by the Engineer. Suspended operations requiring flagging may resume once a certified flagger arrives on-site to perform flagging duties in accordance with

applicable requirements. Flaggers improperly performing duties may be subject to flagger certification revocation at the sole discretion of the Engineer.

12-20-24 (SPCN)

cn512-000100-00 **TABLE V-1, ADT GROUPS —** The Specifications are amended to include the following table:

TABLE V-1
Average Daily Traffic (ADT) Groups

Traffic Group	ADT	Traffic Group	ADT
I	0-9	X	2,000-2,999
II	10-24	XI	3,000-3,999
III	25-49	XII	4,000-4,999
IV	50-99	XIII	5,000-5,999
V	100-249	XIV	6,000-9,999
VI	250-399	XV	10,000-14,999
VII	400-749	XVI	15,000-19,999
VIII	750-999	XVII	20,000-29,999
IX	1,000-1,999	XVIII	30,000-39,999
		XIX	40,000 & over

7-12-16 (SPCN)

DRUG-FREE WORKPLACE– The Contractor shall:

- Provide a Drug-Free Workplace for the Contractor's employees.
- Post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- State in all solicitations or advertisements for employees placed by or on behalf of the Contractor that the Contractor maintains a Drug-Free Workplace.
- Include the provisions of the foregoing clauses in every Subcontract or purchase order of over $10,000, so that the provisions will be binding upon each Subcontractor or vendor.

For the purposes of this provision, "Drug-Free Workplace" means a site for the performance of work done in connection with the Contract. The Contractors employees, and those of his Subcontractors, shall be prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession, or use of any controlled substance or marijuana during the performance of the Work.

7-3-19 (SPCN)

SP0F0-000100-00

Reissued July 12, 2016

PREDETERMINED MINIMUM WAGE RATES

General Decision Number: VA20250086 01/03/2025

Superseded General Decision Number: VA20240086

State: Virginia

Construction Type: Highway

Counties: Danville* and Pittsylvania Counties in Virginia.

***including the independent city of Danville**

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be

adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2025

SUVA2016-022 07/02/2018

	Rates	Fringes
CARPENTER, Includes Form Work	$ 17.77	0.96
CEMENT MASON/CONCRETE FINISHER	$ 19.35	0.00
IRONWORKER, REINFORCING	$ 20.80	0.00
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor	$ 17.79	0.00
LABORER: Common or General	$ 14.46 **	0.00
LABORER: Pipelayer	$ 16.75 **	0.00
OPERATOR: Backhoe/Excavator/Trackhoe	$ 17.74 **	0.00
OPERATOR: Broom/Sweeper	$ 16.15 **	0.23
OPERATOR: Crane	$ 26.68	0.00
OPERATOR: Grader/Blade, Includes Finishing	$ 26.13	0.00
OPERATOR: Loader	$ 18.18	0.00
OPERATOR: Mechanic	$ 19.15	0.00
OPERATOR: Milling Machine	$ 21.13	0.00
OPERATOR: PAVEMENT PLANER	$ 15.95 **	0.00
OPERATOR: Paver (Asphalt, Aggregate, and Concrete)	$ 18.39	0.00
OPERATOR: Roller (Finishing)	$ 16.55 **	0.00
OPERATOR: Roller	$ 16.38 **	0.00
OPERATOR: TRACTOR (UTILITY)	$ 13.94 **	0.00

OPERATOR: Asphalt Spreader and Distributor.....$ 17.34 ** 0.00

OPERATOR: Bulldozer, Including Utility.....$ 17.66 ** 0.00

PAVEMENT MARKING TRUCK DRIVER....$ 21.40 0.00

TRAFFIC CONTROL: Flagger.....$ 11.99 ** 0.00

TRUCK DRIVER : HEAVY 7CY & UNDER.....$ 16.69 ** 0.00

TRUCK DRIVER: 1/Single Axle Truck.....$ 15.79 ** 0.00

TRUCK DRIVER: HEAVY OVER 7 CY.....$ 17.74 ** 0.00

TRUCK DRIVER: MULTI AXLE.....$ 15.91 ** 0.81

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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**** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.75) or 13658 ($13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.**

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after

award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted

average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations.

Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION

WASHINGTON
DECISION OF THE SECRETARY

This case is before the Department of Labor pursuant to a request for a wage predetermination as required by law applicable to the work described.

A study has been made of wage conditions in the locality and based on information available to the Department of Labor the wage rates and fringe payments listed are hereby determined by the Secretary of Labor as prevailing for the described classes for labor in accordance with applicable law.

This wage determination decision and any modifications thereof during the period prior to the stated expiration date shall be made a part of every contract for performance of the described work as provided by applicable law and regulations of the Secretary of Labor, and the wage rates and fringe payments contained in this decision, including modifications, shall be the minimums to be paid under any such contract and subcontractors on the work.

The Contracting Officer shall require that any class of laborers and mechanics which is not listed in the wage determination and which is to be employed under the Contract, shall be classified or reclassified conformably to the wage determination, and a report of the action taken shall be sent by the Federal agency to the Secretary of Labor. In the event the interested parties cannot agree on the proper classification or reclassification of a particular class of laborers and mechanics to be used, the question accompanied by the recommendation of the Contracting Officer shall be referred to the Secretary for determination.

Before using apprentices on the job the contractor shall present to the Contracting Officer written evidence of registration of such employees in a program of a State apprenticeship and training agency approved and recognized by the U.S. Bureau of Apprenticeship and Training. In the absence of such a State agency, the Contractor shall submit evidence of approval and registration by the U.S. Bureau of Apprenticeship and Training.

The Contractor shall submit to the Contracting Officer written evidence of the established apprentice-journeyman ratios and wage in the project area, which will be the basis for establishing such ratios and rates for the project under the applicable contract provisions.

Fringe payments include medical and hospital care, compensation for injuries or illness resulting from occupational activity, unemployment benefits, life insurance, disability and sickness insurance, accident insurance (all designated as health and welfare), pensions, vacation and holiday pay, apprenticeship or other similar programs and other bona fide fringe benefits.

By direction of the Secretary of Labor

E. Irving Manger, Associate Administrator
Division of Wage Determinations
Wage and Labor Standards Administration

SP0F0-000130-02

October 3, 2023
FHWA-1273 (Electronic Version)

The following Form **FHWA-1273** titled **REQUIRED CONTRACT PROVISIONS, FEDERAL-AID CONSTRUCTION CONTRACTS** shall apply to this contract:

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FHWA-1273 – Revised October 23, 2023

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
XI. Certification Regarding Use of Contract Funds for Lobbying
XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

   The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

   Form FHWA-1273 must be included in all Federal-aid design- build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

   Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. **NONDISCRIMINATION** (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60- 1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and

conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non- responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non- minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non- minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant

Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA- 1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to *DBAconformance@dol.gov*. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to *DBAconformance@dol.gov,* refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to

satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts- covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/ legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a “Statement of Compliance,” signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the “Statement of Compliance” required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices

must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis- Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. **Disputes concerning labor standards.** As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract.

Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. **Certification of eligibility**. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

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

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day

on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31U.S.C. 3901–3907.

4. **Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower- tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish
(a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources

(supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long- standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

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

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal- aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false

representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2**CFR 200.88; EO 11738)**

1.

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. **Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the

prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any

covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

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

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

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

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B) This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

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.

SP0F0-000150-01 July 17, 2017

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals for female and minority participation, expressed in percentage terms of the Contractor's aggregate work force in each trade on all construction works in the covered area, are as follows:

   Females- 6.9%
   Minorities - See Attachment "A"

   The goals are applicable to all the Contractor's construction work performed in the covered area, whether or not it is Federal or federally assisted. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

   The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications, set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established herein. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the Contract, the Executives Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 workings days the award of any construction subcontract in excess of $10,000 at any tier for construction works under this contract. The notification shall list the name, address and telephone number of the subcontractor, employer identification number, estimated dollar amount of the subcontract, estimated starting and completion dates of the subcontract and the geographical area in which the Contract is to be performed.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As, used in this provision:

   a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

   b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

   c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941;

   d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U. S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors and Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, shall assign two or more women to each construction project. The Contractor shall specifically ensure that all foreman, superintendents and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off the street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union, or if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or women sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper or annual report; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents and General Foremen prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including in any news media advertisement that the Contractor is "An Equal Opportunity Employer" for minority and female, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Directs its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures and tests to be used m the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of Contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for such opportunities through appropriate training or other means.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated, except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. Goals for women have been established. However, the Contractor IS required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner, that is even thought the Contractor has achieved its goals for women, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246. as amended.

13. The Contractor, in fulfilling its obligations under these specifications shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from Its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director will proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate and make known to the Department a responsible official as the EEO Officer to monitor all employment related activity, to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors will not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

ATTACHMENT A

Economic Area	Goal (Percent)
Virginia:	
021 Roanoke-Lynchburg, VA	
SMSA Counties:	
4640 Lynchburg, VA ..... VA Amherst; VA Appomattox; VA Campbell; VA Lynchburg	19.3
6800 Roanoke, VA ..... VA Botetourt; VA Craig; VA Roanoke; VA Roanoke City; VA Salem	10.2
Non-SMSA Counties ..... VA Alleghany; VA Augusta; VA Bath; VA Bedford; VA Bland; VA Carroll; VA Floyd; VA Franklin; VA Giles; VA Grayson; VA Henry; VA Highland; VA Montgomery; VA Nelson; VA Patrick; VA Pittsylvania; VA Pulaski; VA Rockbridge; VA Rockingham; VA Wythe; VA Bedford City; VA Buena Vista: VA Clifton Forge; VA Covington; VA Danville; VA Galax; VA Harrisonburg; VA Lexington; VA Martinsville; VA Radford; VA Staunton; VA Waynesboro; WV Pendleton.	12.0
022 Richmond, VA	
SMSA Counties:	
6140 Petersburg - Colonial Heights - Hopewell, VA ..... VA Dinwiddie; VA Prince George; VA Colonial Heights; VA Hopewell; VA Petersburg.	30.6
6760 Richmond, VA ..... VA Charles City; VA Chesterfield; VA Goochland, VA Hanover; VA Henrico; VA New Kent; VA Powhatan; VA Richmond.	24.9
Non-SMSA Counties ..... VA Albemarle; VA Amelia; VA Brunswick; VA Buckingham, VA Caroline; VA Charlotte; VA Cumberland; VA Essex; VA Fluvanna; VA Greene; VA Greensville; VA Halifax; VA King and Queen; VA King William; VA Lancaster; VA Louisa; VA Lunenburg; VA Madison; VA Mecklenburg; VA	27.9

Northumberland; VA Nottoway; VA Orange; VA Prince Edward; VA Richmond VA Sussex; VA Charlottesville; VA Emporia; VA South Boston

023 Norfolk - Virginia Beach - Newport News VA:

SMSA Counties:

5680 Newport News- Hampton, VA 27.1
VA Gloucester; VA James City; VA York; VA Hampton; VA Newport News; VA Williamsburg.

5720 Norfolk - Virginia Beach - Portsmouth, VA - NC 26.6
NC Currituck; VA Chesapeake; VA Norfolk; VA Portsmouth; VA Suffolk; VA Virginia Beach.

Non-SMSA Counties 29.7
NC Bertie; NC Camden; NC Chowan; NC Gates; NC Hertford; NC Pasquotank; NC Perquimans; VA lsle of Wight; VA Matthews; VA Middlesex; VA Southampton; VA Surry; VA Franklin.

Washington, DC:

020 Washington, DC.

SMSA Counties:

8840 Washington, DC - MD - VA 28.0
DC District of Columbia; MD Charles; MD Montgomery MD Prince Georges; VA Arlington; VA Fairfax; VA Loudoun; VA Prince William VA Alexandria; VA Fairfax City; VA Falls Church.

Non- SMSA Counties 25.2
MD Calvert; MD Frederick; MD St. Marys: MD Washington; VA Clarke; VA Culpeper; VA Fauquier; VA Frederick; VA King George; VA Page; VA Rappahannock; VA Shenandoah; VA Spotsylvania; VA Stafford; VA Warren: VA Westmoreland; VA Fredericksburg; VA Winchester WV Berkeley; WV Grant; WV Hampshire; WV Hardy; WV Jefferson; WV Morgan.

Tennessee:

052 Johnson City - Kingsport - Bristol, TN - VA

SMSA Counties:

3630 Johnson City - Kingsport -Bristol, TN-VA 2.6
TN Carter; TN Hawkins; TN Sullivan; TN Washington; VA Scott: VA Washington; VA Bristol.

Non-SMSA Counties 3.2
TN Greene; TN Johnson; VA Buchanan; VA Dickenson; VA Lee; VA Russell; VA Smyth; VA Tazewell; VA Wise; VA Norton; WV McDowell; WV Mercer.

Maryland:

019 Baltimore MD

Non-SMSA Counties 23.6
MD Caroline; MD Dorchester; MD Kent; MD Queen Annes; MD Somerset; MD Talbot; MD Wicomico; MD Worchester; VA Accomack; VA Northampton.

SP100-000051-00

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
CHANGED CONDITIONS FOR LOCAL ASSISTANCE PROJECTS

April 29, 2019

I. GENERAL

This special provision specifies the process to be followed when conditions specified in the Contract differ from what is encountered during the prosecution of work except as provided elsewhere in the Contract.

II. DIFFERING SITE CONDITIONS

1. During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the Contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the site is disturbed and before the affected work is performed.

2. Upon written notification, the Engineer will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment, excluding anticipated profits, will be made and the Contract modified in writing accordingly. The Engineer will notify the Contractor of the determination whether or not an adjustment of the Contract is warranted.

3. No contract adjustment which results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice.

4. No contract adjustment will be allowed under this clause for any effects caused on unchanged work. (This provision may be omitted by the Department at its option.)

III. SUSPENSION OF WORK ORDERED BY THE ENGINEER

1. If the performance of all or any portion of the work is suspended or delayed by the Engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the Contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the Contractor shall submit to the Engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

2. Upon receipt, the Engineer will evaluate the Contractor's request. If the Engineer agrees that the cost and/or time required for the performance of the Contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the Engineer will make an adjustment (excluding profit) and modify the Contract in writing accordingly. The Contractor will be notified of the Engineer's determination whether or not an adjustment of the Contract is warranted.

3. No contract adjustment will be allowed unless the Contractor has submitted the request for adjustment within the time prescribed.

4. No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.

IV. SIGNIFICANT CHANGES IN THE CHARACTER OF WORK

1. The Engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the Contract nor release the surety, and the Contractor agrees to perform the work as altered.

2. If the alterations or changes in quantities significantly change the character of the work under the Contract, whether such alterations or changes are in themselves significant changes to the character of the work or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the Contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Contractor in such amount as the Engineer may determine to be fair and equitable.

3. If the alterations or changes in quantities do not significantly change the character of the work to be performed under the Contract, the altered work will be paid for as provided elsewhere in the Contract.

4. The term “significant change” shall be construed to apply only to the following circumstances:

   A. When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or

   B. When a major item of work, as defined elsewhere in the Contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

SP102-000510-02

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
USE OF DOMESTIC MATERIAL

December 19, 2018

SECTION 102.05 PREPARATION OF BID of the Specifications is amended to include the following:

In accordance with the provisions of Section 635.410(b) of Title 23 CFR, hereinafter referred to as "Buy America", except as otherwise specified, all iron and steel (including miscellaneous items such as fasteners, nuts, bolts and washers) to be permanently incorporated for use on federal aid projects shall be produced in the United States of America. This applies to any iron or steel item brought onto the project, regardless of the percentage of iron or steel that exists in the pay item or in the final form they take; however, electrical components (i.e., combination products such as signal controllers and similar products which are only sold as a unit) are not subject to Buy America provisions if the product as purchased by the Contractor is less than 50% steel and iron. "Produced in the United States of America" means all manufacturing processes occur in one of the 50 United States, the District of Columbia, Puerto Rico or in the territories and possessions of the United States. "Manufacturing processes" are defined as any process which alters or modifies the chemical content, physical size or shape, or final finish of iron or steel material (such as rolling, extruding, bending, machining, fabrication, grinding, drilling, finishing, or coating). For the purposes of satisfying this requirement "coating" is defined as the application of epoxy, galvanizing, painting or any other such process that protects or enhances the value of the material to which the coating is applied. Non-iron and non-steel materials used in the coating process do not need to be produced in the United States as long as the application of the coating occurred in the United States. The manufacturing process is considered complete when the resultant product is ready for use as an item in the project (e.g. fencing, posts, girders, pipe, manhole covers, etc.) or is incorporated as a component of a more complex product by means of further manufacturing. Final assembly of a product may occur outside of the United States of America provided no further manufacturing processes take place.

For the purposes of this provision, all steel or iron material meeting the criteria as produced in the United States of America will be considered as "Domestic Material." All iron and steel items not meeting the criteria as produced in the United States of America will be considered "Non-Domestic Material."

A minimal amount of "Non-Domestic" steel or iron material may be incorporated in the permanent work on a federal-aid contract provided that the cost of such materials or products does not exceed one-tenth of one percent of the Contract amount or $2500, whichever is greater. The cost of the "Non-Domestic Material" is defined as its monetary value delivered to the job site and supported by invoices or bill of sale to the Contractor. This delivered-to-site cost must include transportation, assembly, installation and testing.

Buy America provisions do not apply to iron or steel products used temporarily in the construction of a project such as temporary sheet piling, temporary bridges, steel scaffolding, falsework or such temporary material or product or material that remains in place for the Contractor's convenience.

Raw materials such as iron ore, pig iron, processed, pelletized and reduced iron ore, waste products (including scrap, that is, steel or iron no longer useful in its present form from old automobiles, machinery, pipe, railroad rail, or the like and steel trimmings from mills or product manufacturing) and other raw materials used in the production of steel and\or iron products may, however, be imported. Extracting, handling, or crushing the raw materials which are inherent to the transporting the materials for later use in the manufacturing process are exempt from Buy America.

Any items containing foreign source steel or iron billet shall be considered "Non-Domestic Materials." Additionally, iron or steel ingots or billets produced in the United States, but shipped outside the United

States of America for any manufacturing process and returned for permanent use in a project shall be considered “Non-Domestic Materials.”

Waivers:

The process for receiving a waiver for Buy America provisions is identified in 23 CFR 635.410(c). The Contractor shall not anticipate that any Buy America provisions will be waived.

Certification of Compliance:

The Contractor is required to submit a Certificate of Compliance prior to incorporating any items containing iron or steel items into the project. This shall be accomplished by the Contractor submitting the Form C-76 Certificate of Compliance to the Department when the items are delivered to the project site. The Certification of Compliance will certify whether the items are considered “Domestic Material” or “Non-Domestic Material” as referenced in this Special Provision. The certificate must be signed and dated by the Prime Contractor’s Superintendent and include a Buy America Submittal Number. The Buy America Submittal Number is simply the Contractor’s project specific sequential numbering system that will allow the Contractor and Department to track the total number of certificates provided and the individual items containing iron or steel associated with each certificate.

Supporting Documentation:

Supporting documentation to demonstrate compliance with Buy America provisions (such as mill test reports manufacturer/supplier certifications, etc.) shall be organized by Buy America Submittal Number and maintained by the Contractor from the date of delivery until three years after project acceptance. The Contractor may maintain this documentation electronically or in paper format.

The Department or FHWA may review the Contractor’s supporting documentation to verify compliance with the Buy America provisions at any time. Supporting documentation shall be provided within five business days of the request. The burden of proof to meet the Buy America provisions rests with the Contractor. If the supporting documentation does not undeniably demonstrate to FHWA or the Department that the “Domestic Materials” identified in the Certificates of Compliance were produced in the United States of America, then the Department may deduct payment from moneys due the Contractor for the value of the iron and steel that did not meet the Buy America provisions.

SP107-000120-00

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
ELECTRONIC SUBMISSION OF PAYROLLS AND DBE SUBCONTRACTOR PAYMENT FOR FEDERALLY FUNDED PROJECTS

January 21, 2020

I. GENERAL REQUIREMENTS

The Contractor and all Subcontractors shall submit all certified payrolls and subcontractor payments, including those made to Disadvantaged Business Enterprises (DBEs), using the AASHTOWare Project Civil Rights and Labor (CRL) system in accordance with this specification. The term "subcontractor" shall include all vendors subject to FHWA-1273.

The electronic payroll submission and subcontractor payments through the CRL system replaces the paper submission of the C-57 and C-63 forms otherwise required by Sections 107.14(m) and 107.15 of the Specifications.

II. SYSTEM REQUIREMENTS

The CRL system is web based. The Contractor shall ensure compatibility with the CRL system as necessary to successfully execute the Work. The CRL system works with Internet Explorer 11 or Google Chrome and requires the ability to read, create, and edit spreadsheets in the .xlsx file format.

The Contractor and Subcontractors will be granted access after submitting forms ITD-35 and ITD-36 for each individual user who requires an account. Only those firms with a required contract in the system should submit the Request Access form. The software is configured so that each firm will only be able see their specific contract information. There will only be one single sign-on process for multiple application access within the Department.

VDOT will provide access and link and a log-in identification (ID) for the CRL system to designated employees of the Contractor and approved subcontractors entered into the system for the contract. The log-in ID and password are unique to the designated employee and must not be shared with other employees. There are no fees associated with accessing the system or to receive a login ID.

The low bidders on Contract awards will be contacted by the State Civil Rights Manager after letting to begin the process for accessing the CRL system for them and their subcontractors. The State Civil Rights Manager will provide all training for entry of certified payrolls and DBE subcontractor payments in CRL.

The CRL website is located at:
https://www.virginiadot.org/business/aashtoware_project_civil_rights_and_labor%E2%84%A2_crl_management_system.asp.

III. PROCEDURES

1. CERTIFIED PAYROLL & SUBCONTRACTOR DATA SUBMISSION FOR FEDERALLY FUNDED PROJECTS

The Contractor and all subcontractors shall use the CRL system to provide VDOT electronic certified payrolls. The Contractor shall ensure that all subcontractors submit their certified payrolls into the system electronically.

Electronic submittal of certified payrolls can be submitted using the following methods:

- Manually add, copy, or modify data into CRL;
- Import payroll data with the CRL payroll spreadsheet XML converter tool available at https://xml.cloverleaf.net/spreadsheet/
- Convert payroll system program data to Payroll XML and import it into the CRL system. Information on how to convert to payroll program data to an XML file can be located at https://xml.cloverleaf.net/resourcekit/;
- The Contractor may send, on behalf of a subcontractor, payroll payment information based on a signed, certified paper payroll through the Electronica Proxy Payroll Process. Import payroll data with the CRL payroll spreadsheet XML converter tool available at https://xml.cloverleaf.net/spreadsheet/.

The District Civil Rights Manager or Engineer may require at any time, in writing, certified paper copies of the payrolls conforming to FHWA 1273 from any or all contractors working on the project.

2. **DBE PAYMENT SUBMISSION REQUIREMENTS FOR FEDERALLY FUNDED PROJECTS**

The Contractor shall post payment to DBE firms listed on their C-111 towards meeting their contract DBE goal per Federal DBE regulations. The Contractor shall submit, and shall require each Subcontractor to provide, payment amounts relative to all DBE involvement on the project during the life of the Contract in which participation occurs, and verification is available. The Contractor shall post payments to DBEs in CRL within 7 days after receipt of payment from the Department. Subcontractors shall post payments to DBEs in CRL within 7 days after receipt of payment from the Contractor.

The District Civil Rights Manager may require at any time, in writing, proof of payments from any or all subcontractors working on the project related to contractor DBE payments. The Contractor shall enter all payments made to all subcontractors into the Payment area of CRL for each estimate.

DBE Payments shall be entered only for those business entities that are being utilized in conjunction with performing a Commercial Useful Function (CUF).

More information about the CRL system can be located at https://www.aashtowareproject.org/index.php.

SP107-001510-04

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
DBE REQUIREMENTS

June 5, 2024

SECTION 107 – LEGAL RESPONSIBILITIES of the Specifications is revised as follows:

Section 107.15 – Use of Small, Women-Owned, and Minority-Owned Businesses (SWaMs) is replaced in its entirety with the following:

Section 107.15 – Use of Disadvantaged Business Enterprises (DBEs)

Disadvantaged Business Enterprise Program Requirements

Bidders, the Contractor, and all subcontractors, suppliers, and contract sureties involved in the performance of work on this federal-aid contract shall comply with the terms and conditions of this Special Provision and the United States Department of Transportation (USDOT) DBE Program in Title 49, Part 26 of the Code of Federal Regulations, as amended, (USDOT DBE Program), which are incorporated by reference into this Special Provision. The Contractor shall physically include this same Special Provision in every subcontract that it makes or executes with a subcontractor or supplier for which it intends to claim DBE credit.

Disadvantaged Business Enterprise (DBE) means a small business concern that is certified as such in accordance with this Special Provision, and includes the Contractor, subcontractors, suppliers, or manufacturers performing work, or furnishing materials, supplies, equipment, or services necessary for the Contract.

The Contractor, for itself and for its subcontractors and suppliers, whether certified DBE firms or not, shall commit to complying fully with the auditing, record keeping, confidentiality, cooperation, and anti-intimidation or retaliation provisions contained in USDOT DBE Program and the Contract. By bidding on this Contract, and by accepting and executing this Contract, the Contractor agrees to assume these contractual obligations and to bind the Contractor's subcontractors contractually to the same at the Contractor's expense.

The Contractor and its subcontractors and suppliers shall not discriminate on the basis of race, color, sex, sexual orientation, gender identity, or national origin in the performance of this Contract. The Contractor shall carry out applicable requirements of USDOT DBE Program and the Contract in the award, administration, and performance of this Contract. Failure by the Contractor to carry out these requirements is a material breach of this Contract, which will result in the termination of this Contract or other such remedy, as VDOT deems appropriate, which may include, but is not limited to: (1) withholding monthly progress payments; (2) assessing sanctions; (3) assessing liquidated damages; and/or (4) disqualifying the contractor from future bidding.

All administrative remedies noted in this Special Provision will be imposed unless the Contractor exercises the right of appeal within the required timeframe(s) specified herein. Appeal requirements, processes, and procedures are stated herein. Where applicable, the Department will notify the Contractor of any changes to the appeal requirements, processes, and procedures after receiving notification of the Contractor's desire to appeal.

DBE Prequalification and Certification

To be eligible to perform work on this federal-aid contract firms must be prequalified in accordance with the requirements of Section 102.01 of the Specifications. To receive credit toward meeting the Contract DBE goal, firms must be certified as DBEs by the Virginia Department of Small Business and Supplier Diversity (DSBSD) or the Metropolitan Washington Airports Authority (MWAA) in accordance with the USDOT DBE Program and this Special Provision. Eligibility to receive credit also requires that DBEs identified as participating in the Contract to meet the goal are certified in a North American Industry Classification System (NAICS) code applicable to the specific types of work the DBE would perform. A directory listing of eligible certified DBEs and their assigned NAICS codes for the types of work they are certified to perform as DBEs can be obtained from the DSBSD website: *www.sbsd.virginia.gov.*

Bank Services

The Contractor and each subcontractor are encouraged to use the services of banks owned and controlled by socially and economically disadvantaged individuals. Such banking services and the fees charged for services typically will not be eligible for DBE Program contract goal credit. Such information is available from the VDOT's Internet Civil Rights Division website:
https://www.vdot.virginia.gov/media/vdotvirginiagov/doing-business/programs-for-businesses/dbe-program/VDOT_DBE_Program_Plan.pdf

DBE Program-Related Certifications Made by Bidders and Contractors

By submitting a bid, by signing this Contract, and by signing each subcontract with a subcontractor incorporating this Special Provision, the Contractor and subcontractors certify to each of the following DBE-related conditions and assurances:

That they have complied and will comply with the requirements of the USDOT DBE Program and the Contract in submitting the bid, that they shall comply fully with these requirements in the bidding, award, execution, performance, and administration of the Contract and subcontracts, and that failure to comply may result in disqualification or other legal sanctions.

That all reasonable steps were and will be taken to ensure that DBEs had and will have a full and fair opportunity to compete for and perform work on the Contract. Any agreements between a bidder and a DBE whereby the DBE promises not to provide quotations for performance of work to other bidders are prohibited.

That they shall not discriminate on the basis of race, color, age, sex, sexual orientation, gender identity, or national origin in the performance of the Contract or in the award and performance of any subcontract.

That they made and shall make good faith efforts to seek out and consider DBEs as potential subcontractors to obtain DBE participation in the proposed contract at or above the goal for DBE participation established by VDOT by contacting DBEs to solicit their interest, capability, and prices in sufficient time to allow them to respond effectively; and, if necessary, they have submitted as a part of its bid true, accurate, complete, and detailed documentation of the good faith efforts it performed to meet the DBE goal.

That once awarded the Contract, the Contractor shall utilize the DBEs listed in Form C-111 to perform the work designated at or above the amount or percentage of the dollar value specified in the bidding documents, and shall not unilaterally terminate, substitute for, or replace any listed DBE in whole or in part with another DBE, any non-DBE firm, or with the Contractor's own forces or those of an affiliate of the Contractor without the prior written consent of VDOT as set out within the requirements of this Special Provision.

That once awarded the Contract, they shall designate and make known to the Department a liaison officer who is assigned the responsibility of administering and promoting an active and inclusive DBE program as required by the USDOT DBE Program and this Special Provision. The designation and identity of this officer need be submitted only once by the Contractor during any twelve (12) month period at the preconstruction conference for the first contract the Contractor has been awarded during that reporting period. The Department will post such information for informational and administrative purposes at VDOT's Internet Civil Rights Division website.

That once awarded the Contract, they shall comply fully with all regulatory and contractual requirements of the USDOT DBE Program and this Special Provision, and that each DBE participating in the Contract shall fully perform the designated work items with the DBE's own forces and equipment under the DBE's direct supervision, control, and management.

That in the event a bond surety assumes responsibility for completion of work for any reason, including without limitation when the Department terminates the prime Contractor, the surety shall be obligated to meet the same DBE contract terms and requirements as were required of the original prime Contractor in accordance with the requirements of the USDOT DBE Program and this Special Provision.

Failure by the Contractor, DBE, any other subcontractor or supplier retained by the Contractor, or surety to comply with all requirements of the USDOT DBE Program and/or this Special Provision is a material breach of this Contract. The Department has the authority and discretion to determine the extent to which these requirements have not been met, and will assess against the Contractor any remedies available at law or provided in the Contract in the event of such a contract breach, which may result in termination of the Contract or such other remedy as the Department deems appropriate, which may include, but is not limited to: (1) withholding monthly progress payments; (2) assessing sanctions; (3) assessing liquidated damages; and/or (4) disqualifying the Contractor from future bidding as non-responsible.

DBE Requirements

The Contract will only be awarded to a bidder and Contractor who makes a good faith effort to meet or exceed the DBE goal. After award of the Contract, the Contractor must comply with the requirements of this Special Provision and make a good faith effort to meet or exceed the DBE goal in the performance of the Work. DBE Forms can be obtained from the VDOT website at: https://vdotforms.vdot.virginia.gov/.

Good faith efforts means all necessary and reasonable steps that the bidder or Contractor takes to achieve the DBE goal or comply with the requirements of this Special Provision which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to obtain sufficient DBE participation, even if not fully successful.

The following requirements shall apply to the Contract for DBE compliance purposes.

1. **Contract Goal, Good Faith Efforts Specified:** Bidders and the Contractor shall evidence attainment of DBE participation equal to or greater than the DBE goal by submission of the forms specified below to the Department within the time required.

   A. **During Bidding:** A bidder has made good faith efforts if the bidder does either of the following things:

      (1) The bidder documents that it has attained DBE participation equal to or greater than the DBE goal established for the project by submitting a completed **Form C-111**, **Minimum**

DBE Requirements, and **Form C-48**, **Subcontractor/Supplier Solicitation and Utilization**, as a part of the bid documents.

Form C-111 and Form C-48 must be received no later than 10:00 a.m. the next business day after the date and time stated in the Invitation for Bids for receipt of bids, or the bid will be rejected as non-responsive. These forms may be submitted electronically via Bid Express or by email to: vdotcontracts@vdot.virginia.gov.

(2) If the bidder is unable to attain sufficient DBE participation to meet the DBE goal, the bidder must show the amount of DBE participation that it commits to attain in its Form C-111 submitted in accordance with subsection (A), above, then submit **Form C-49**, **DBE Good Faith Efforts Documentation**, to document its good faith efforts to meet the DBE goal. Form C-49 must be submitted within two (2) business days after the bid opening, or the bid will be rejected as non-responsive. The form may be submitted electronically via Bid Express or by email to: vdotcontracts@vdot.virginia.gov.

A Form C-49 shall also be required when, after review of the apparent lowest bid, VDOT determines the bidder failed to meet the DBE goal or other requirements. The form must be received by the State Contract Engineer within two (2) business days after official notification of such failure.

The bidder must attach additional pages to Form C-49, if necessary, in order to fully document specific good faith efforts made to obtain the DBE participation specified in the proposed contract work.

B. **Post-Bid:** In addition, the apparent low bidder must submit within five (5) days after bid opening the following forms, properly executed, or the bid will be rejected as a matter of responsibility:

(1) **Form C-112**, **Certification of Binding Agreement** providing confirmation from each DBE listed in the Form C-111 that it is participating in the Contract in the kind and amount of work designated. DBEs bidding as prime contractors are not required to submit Form C-112 unless they are utilizing other DBEs as subcontractors.

(2) **Form C-110**, **DBE Regular Dealer/Distributor Affirmation** must be submitted when a DBE listed on Form C-111 is a regular dealer or distributor, as defined below to provide confirmation of the DBE's participation according to the requirements of this section. The Department will make a preliminary counting determination to assess the DBE's eligibility for 60 or 40 percent credit, respectively, of the cost of materials and supplies based on the DBE's demonstrated capacity and intent to perform as a regular dealer or distributor under the Contract. The Department's preliminary determination shall be made based on the DBE's written response to relevant questions and the DBE's affirmation that its subsequent performance of a commercially useful function will be consistent with the preliminary counting of such participation. Where the DBE supplier does not affirm that its participation will meet the specific requirements of either a regular dealer or distributor, the Department shall make adjustments in counting such participation toward the DBE goal. The bidder is responsible for verifying that the information provided by the DBE supplier is consistent with the counting of such participation toward the goal.

2. Good Faith Efforts Described

A. The Department will determine if the bidder or Contractor made good faith efforts by considering the quality, quantity, and intensity of the different kinds of efforts that the bidder or Contractor has made and, if given all relevant circumstances, the efforts were those that one could reasonably expect a bidder or a contractor to take if they were actively and

aggressively trying to meet the DBE goal. Efforts to obtain DBE participation are not good faith efforts if they could not reasonably be expected to produce a level of DBE participation sufficient to meet the DBE goal.

B. The following list contains examples of good faith efforts that may be taken to obtain DBE participation. This is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts of similar intent may be relevant in appropriate cases:

(1) Soliciting through reasonable and available means, such as but not limited to, attendance at pre-bid meetings, advertising, and written notices to DBEs who have the capability to perform the work of the Contract. Examples include: advertising in at least one daily/weekly/monthly newspaper of general circulation, as applicable; phone contact with a completely documented telephone log, including the date and time called, contact person, or voice mail status; and internet contacts with supporting documentation, including dates advertised. The bidder shall solicit this interest no less than five (5) business days before the bids are due so that the solicited DBEs have enough time to reasonably respond to the solicitation. The bidder shall determine with certainty if the DBEs are interested by taking reasonable steps to follow up initial solicitations as evidenced by documenting such efforts as requested on Form C-49, DBE Good Faith Efforts Documentation.

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

(3) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the Contract in a timely manner, which will assist the DBEs in responding to a solicitation;

(4) Negotiating for participation in good faith with interested DBEs;

i. Evidence of such negotiation shall include the names, addresses, and telephone numbers of DBEs that were considered; dates DBEs were contacted; a description of the information provided regarding the plans, specifications, and requirements of the Contract for the work selected for subcontracting; and, if insufficient DBE participation seems likely, evidence as to why additional agreements could not be reached for DBEs to perform the work;

ii. A bidder using good business judgment should consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and should take a firm's price, qualifications, and capabilities, as well as contract goals, into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not sufficient reason for a bidder's failure to meet the Contract goal for DBE participation, as long as such costs are reasonable and comparable to costs customarily appropriate to the type of work under consideration. 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 diligent good faith efforts. Bidders are not, however, required to accept higher quotes from DBEs if the bidder can show the price difference to be excessive, unreasonable, or greater than would normally be expected by industry standards;

(5) A bidder cannot reject a DBE as being unqualified without sound reasons based on a thorough investigation of the DBE's capabilities. The DBE's standing within its industry, membership in specific groups, organizations, associations, and political or social affiliations, and union versus 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 for DBE participation;

(6) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by VDOT or by the bidder or Contractor;

(7) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services subject to the restrictions contained in this Special Provision;

(8) Effectively using the services of appropriate personnel from VDOT and from DSBSD; available minority/women community or minority organizations; 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 utilization of qualified DBEs.

C. In addition, the Department will scrutinize the bidder's documented efforts, and will review the efforts of other bidders in meeting the DBE goal. For example, if the apparent low bidder fails to meet the goal, but other bidders meet it, a question may be raised as to whether, with additional efforts, the apparent low bidder could have met the goal. Alternatively, if the apparent low bidder fails to meet the goal but meets or exceeds the average DBE participation obtained by other bidders, the Department may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts. The Department will also require the bidder to submit 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 to review whether DBE prices were substantially higher; and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the bidder. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts.

D. A bidder's promise to use DBEs after contract award is not considered to be responsive to the contract solicitation or to constitute good faith efforts.

3. Bid Rejection: The failure of a bidder to submit the required documentation within the timeframes in accordance with this Special Provision will be sufficient cause for rejection of that bidder's bid as non-responsive or non-responsible, as applicable. In such event, the Department may award the contract to the next lowest bidder, cancel the award and re- advertise the proposed contract at a later date, or proceed otherwise as determined by Department. The required forms and instructions for submitting them can be obtained from the VDOT website at: *https://vdotforms.vdot.virginia.gov/*.

4. Administrative Reconsideration of Good Faith Efforts

Where the Department upon initial review of the bid results determines the apparent low bidder has failed or appears to have failed to meet the requirements of this Special Provision, that bidder upon notification of the Department's initial determination will be offered the opportunity for administrative reconsideration before VDOT rejects that bid and awards the contract to the next lowest bidder. The bidder shall submit such request for reconsideration in writing to the State Contract Engineer within five (5) business days of receipt of notification by the Department and shall be given the opportunity to provide written documentation or argument concerning the issue of whether the bidder met the DBE goal or made adequate good faith efforts to do so to the

Administrative Reconsideration Panel (Panel), either in person or by telephone or video conference as the Panel chooses. The Panel will be made up of VDOT Division Administrators or their designees, none of whom took part in the initial determination that the bidder failed to meet the goal or make adequate good faith efforts to do so. After reconsideration, the Panel shall notify the bidder in writing of its decision and explain the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so.

If, after reconsideration, the Panel determines the bidder failed to meet the requirements of the Contract goal and has failed to make adequate good faith efforts to achieve the level of DBE participation as specified in the bid proposal, the bidder's bid will be rejected.

If after reconsideration, the Panel determines sufficient documented evidence was presented to demonstrate that the apparent low bidder made reasonable good faith efforts, the Department will award the Contract and reduce the DBE requirement to the bidder's actual commitment shown in the bidder's Form C-111 submitted at the time of its bid. However, such action will not relieve the Contractor of its responsibility for complying with the reduced DBE requirement during the life of the Contract or any administrative sanctions as may be appropriate. The Contractor is still encouraged to seek additional DBE participation during the life of the Contract.

5. Contract Changes: During construction there may be changes in the Work necessary for the satisfactory completion of the Project. The DBE Contract goal applicable to the Contract includes change orders that have more than a minimal impact on the overall Contract amount or the expected DBE participation, regardless of whether the Department or the Contractor initiates the change order.

A. **Increases in Contract Amount**

To meet the DBE Contract goal as applied to a Change Order increasing the overall Contract amount, the Contractor must make good faith efforts to obtain additional DBE participation to meet the DBE Goal on the increase in the overall Contract amount. The Contractor may meet this obligation either by obtaining additional work from DBE subcontractors or suppliers or by documenting good faith efforts to do so.

For example, if a project has a 10% DBE participation goal, and during the project the Department issues a change order that will add $500,000 to the overall Contract amount, the 10% goal applies to this additional $500,000. To meet the DBE Contract goal as applied to the Change Order, the Contractor must make good faith efforts to obtain an additional $50,000 in DBE participation.

If the Contractor obtains additional DBE participation from existing or additional DBEs sufficient to meet the increased DBE Contract goal, the Contractor shall submit a revised Form C-111 exhibiting the DBE participation it commits to attain. If after making good faith efforts the Contractor is unable to obtain additional DBE participation, it shall document its good faith efforts by submitting a revised Form C-111 and Form C-49. If the Department determines that these Forms demonstrate that the Contractor made reasonable good faith efforts, the Department will reduce the DBE Goal to the Contractor's actual commitment shown in the revised Form C-111. The Contractor is still encouraged to seek additional DBE participation during the life of the Contract.

The Contractor may notify the Department if it believes that a change order has such a minimal impact on the final net Contract amount or the expected DBE participation that it would not be sensible to apply the goal to the Change Order. The Department will contact the FHWA for guidance on whether it is necessary to alter DBE requirements affecting the Contract.

B. **Decreases in Amount of DBE Work**

If changes in the Work eliminate or decrease the amount of work designated to be performed by DBEs, the Contractor must follow the procedures for Termination of DBE, and must make good faith efforts to meet the Contract DBE goal by finding additional work for DBEs to perform or finding additional DBEs to perform work under the Contract to the extent needed to meet the Contract DBE goal.

Compliance with DBE Requirements

1. Contractor Compliance

The District Civil Rights Office (DCRO) will monitor progress being made toward meeting the DBE goal based on Forms C-63 that the Contractor submits during the designated quarterly reporting period.

If the Contractor fails to conform to the schedule of DBE participation as shown on the progress schedule, or if at any point it is clearly evident that the remaining dollar value of allowable credit for performing work is insufficient to obtain the scheduled participation, and the Contractor has not taken the actions required when a DBE is unwilling or unable to perform, the Contractor may be disqualified from bidding as provided in the section on **Disqualification of Contractor** of this Special Provision (i) for a period up to ninety (90) days, (ii) until such time as conformance with the schedule of DBE participation is achieved, or (iii) until the Contractor has taken the required actions when a DBE is unwilling or unable to perform; whichever occurs last. Disqualification may be avoided if either of the following occurs: (1) the DBE is unable or unwilling to complete their portion of the work, and the Contractor shows reasonable good faith effort to achieve the DBE goal otherwise; or (2) the Department has eliminated or delayed work, or there have been quantitative underruns in work, which the Contractor as shown on the progress schedule had planned to sublet to a DBE firm.

2. DBE Non-Performance: If a DBE, through no fault of the Contractor, is unable or unwilling to fulfill their agreement with the Contractor, the Contractor shall immediately notify VDOT in writing and provide all relevant facts. If a Contractor intends to terminate, relieve a DBE subcontractor of the responsibility to perform work under their subcontract, substitute the certified DBE, or otherwise change the scope of work of the DBE, the Contractor is required to comply with the **Termination of DBE** section of this Special Provision.

3. Project Completion: If the Contractor fails upon completion of the project to meet the DBE goal or otherwise comply with the requirements of this Special Provision, the Contractor may be disqualified as provided in the section on **Disqualification of Contractor** of this Special Provision for a period of ninety (90) days. Disqualification may be avoided if the Contractor submits documentation to the State Contract Engineer substantiating that (1) the failure was due solely to quantitative underrun(s), elimination of items subcontracted to DBEs, or circumstances beyond their control; and (2) all feasible means have been used to obtain the required participation. The State Contract Engineer upon evaluation of such documentation shall make a determination whether or not the Contractor has met the requirements of the Contract in accordance with this Special Provision.

Counting DBE Participation Toward Contract Goal

A DBE's participation in the Contract will count toward meeting the Contract goal in accordance with the following.

1. **DBE Participation:** When a DBE participates in the Contract, only the value of the work, goods, or services that are performed or provided by the DBE will count toward the Contract DBE goal as provided below:

   A. Count the entire amount of that portion of the construction contract (or other contract not covered by paragraph (B) below) that is performed by the DBE's own forces, including the cost of the work, supplies, materials, equipment, or services performed or provided by the DBE and equipment leased by the DBE for the work of the contract, but excluding supplies and equipment a DBE subcontractor purchases or leases from the prime Contractor or its affiliates.

   B. Count the entire amount of fees or commissions charged by a DBE for providing a bona fide service, such as professional, technical, consultant or managerial services, or for providing bonds or insurance specifically required for the performance of the Contract toward DBE goals, provided that the fee is reasonable and not excessive as compared with fees customarily allowed for similar services.

   C. When a DBE subcontracts part of the work of its contract to another firm, the value of that subcontracted work may be counted toward the DBE goal only if the DBE's subcontractor is itself a certified DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward the DBE goal.

   D. **Commercially Useful Function (CUF):** The Contractor may count expenditures to a DBE toward the DBE goal only if the DBE performs a Commercially Useful Function (CUF) on that contract as provided in the section on **Performing a Commercially Useful Function (CUF)** of this Special Provision.

   E. **Payment Required:** A DBE subcontractor's participation will not count toward the Contractor's final compliance with its DBE obligations on the Contract until the Contractor has paid the DBE the amount being counted.

   F. **Joint Ventures:** When a DBE performs work as a member of a joint venture with a non-DBE firm, the Contractor may count toward the DBE goal only that portion of the total dollar value of the Contract equal to the distinctly defined portion of the Contract work that the DBE has performed with the DBE's own forces or in accordance with the provisions of this Section. The Department shall be contacted in advance regarding any joint venture involving both a DBE firm and a non-DBE firm to coordinate Department review and approval of the joint venture's organizational structure and proposed operation where the Contractor seeks to claim the DBE's credit toward the DBE goal.

   G. Cost-plus subcontracts will not be considered to be in accordance with normal industry practice and will not normally be allowed for DBE credit.

2. **Suppliers:** Expenditures with DBEs for materials or supplies will be counted toward DBE goals as follows:

   A. **DBE Manufacturers:** the Contractor may count one hundred (100) percent of the cost of the materials or supplies obtained from a DBE manufacturer. For the purposes of this Special Provision, a manufacturer is a firm that owns (or leases) and operates a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the Contract and of the general character described by the project specifications. Manufacturing includes blending or modifying raw materials or assembling components to meet contract specifications. When a DBE makes minor modifications to the materials, supplies, articles, or equipment, the DBE is not a manufacturer. Minor modifications

are additional changes to a manufactured product that are small in scope and add minimal value to the final product.

B. **DBE Regular Dealers**

(1) The Contractor may count 60 percent of the cost of materials or supplies (including transportation costs) purchased from a DBE regular dealer. For the purposes of this Special Provision, a regular dealer is defined as a firm that owns (or leases) and operates a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment of the general character described by the specifications and required and used under the Contract are bought, kept in sufficient quantities, and regularly sold or leased to the public in the usual course of business. Items kept and regularly sold by the DBE are of the "general character" when they share the same material characteristics and application as the items specified by the Contract.

(2) The Department will determine if a DBE is a regular dealer as described in this section, when the DBE over a reasonable period of time, keeps sufficient quantities and regularly sells the items in question. The Department will also ensure that a regular dealer of bulk items as described in this section owns or leases and operates the distribution equipment for the product it sells. The Department will determine whether each DBE supplier has the demonstrated capacity to perform a commercially useful function (CUF) as a regular dealer prior to its participation. The Department's system will be maintained and used to identify all DBE suppliers with the capacity to be eligible for 60 percent credit, contingent upon performance of a CUF.

i. To be a regular dealer, the DBE firm shall be an established business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products or equipment in question. A DBE supplier performs a CUF as a regular dealer and receives credit for 60 percent of the cost of materials or supplies (including transportation cost) when: at least 51 percent of the items under a purchase order or subcontract are provided from the DBE's inventory; and when necessary, any of the other items under such purchase order or subcontract that are delivered from and by other sources are of the general character of those items provided from the DBE's inventory.

ii. A DBE may be a regular dealer in such bulk items as petroleum products, steel, concrete or concrete products, gravel, stone, or asphalt without owning, operating, or maintaining a place of business where it keeps such items in stock if the DBE both owns and operates distribution equipment used to deliver the products; provided further that the DBE is certified with an appropriate North American Industry Classification System (NAICS) code for supply of such bulk items. Any supplementation of a regular dealer's own distribution equipment must be by a long-term operating lease and not on an *ad hoc* or contract-by-contract basis to be eligible for credit to meet the DBE contract goal.

iii. A DBE supplier of items that are not typically stocked due to their unique characteristics (e.g. limited shelf life or items ordered to specification) should be considered in the same manner as a regular dealer of bulk items as described in this section. If, however, the DBE supplier of these items does not own or lease distribution equipment, as described above, it is not a regular dealer.

iv. Packagers, brokers, manufacturers' representatives, or other persons who arrange, facilitate, or expedite transactions are not regular dealers within the meaning of this section.

(3) If a DBE regular dealer is used for DBE contract goal credit, no additional credit will be given for hauling or delivery to the project site goods or materials sold by that DBE regular dealer. Those delivery costs shall be deemed included in the price charged for the goods or materials by the DBE regular dealer, who shall be responsible for their distribution.

C. **DBE Distributors:** If materials or supplies are purchased from a DBE distributor that neither maintains sufficient inventory nor uses its own distribution equipment for the products in question, the Contractor may count forty (40) percent of the cost of the materials or supplies (including transportation costs). A DBE distributor is an established business that engages in the regular sale or lease of the items specified by the Contract. A DBE distributor assumes responsibility for the items it purchases once they leave the point of origin (e.g., a manufacturer's facility), making it liable for any loss or damage not covered by the carrier's insurance. A DBE distributor performs a CUF when it demonstrates ownership of the items in question and assumes all risk for loss or damage during transportation, evidenced by the terms of the purchase order or a bill of lading (BOL) from a third party, indicating Free on Board (FOB) at the point of origin or similar terms that transfer responsibility of the items in question to the DBE distributor. If these conditions are met, the Contractor may receive 40 percent credit for items drop-shipped by a DBE firm. Terms that transfer liability to the distributor at the delivery destination (e.g., FOB destination), or deliveries made or arranged by the manufacturer or another seller do not satisfy this requirement.

D. **DBE Truckers or Haulers:** A Contractor may count toward the DBE contract goal one hundred (100) percent of the fees paid to a DBE trucker or hauler for the delivery of material and supplies required on the project job site, but not for the cost of those materials or supplies themselves, provided that the trucking or hauling fee is determined by VDOT to be reasonable, as compared with fees customarily charged by non-DBE firms for similar services. A Contractor shall not count costs for the removal or relocation of excess material from or on the job site when the DBE trucker or hauler is not the manufacturer of or a regular dealer in those materials and supplies. The DBE trucker or hauler shall also perform a Commercially Useful Function (CUF) on the project and not operate merely as a pass through for the purposes of gaining credit toward the DBE goal. Prior to submitting a bid, the Contractor shall determine, or contact the VDOT Civil Rights Division or its district offices for assistance in determining, whether a DBE trucker or hauler will meet the criteria for performing a CUF on the project. See section on **Performing a Commercially Useful Function (CUF)**; **Factors Used to Determine if a DBE Trucking Firm is Performing a CUF**.

E. **DBE Brokers:** If materials or supplies are purchased from a DBE who is not a manufacturer, a regular dealer, nor a distributor, as defined above, the Contractor may count the entire amount of fees or commissions charged that the Department deems to be reasonable, including transportation charges for the delivery of materials or supplies. The Contractor may not count any portion of the cost of the materials and supplies toward DBE goals. For the purposes of this Special Provision, a broker is a packager, manufacturer's representative, or other person or firm who arranges, facilitates, or expedites delivery of materials, supplies, and equipment, or regularly arranges for, expedites, or facilitates the providing of project services as a course of routine business but does not own or operate the delivery equipment necessary to transport materials, supplies, or equipment to or from a job site.

F. The Department will determine the amount of credit awarded to a DBE for the provision of materials and supplies (e.g., whether a firm is acting as a regular dealer, distributor, or broker) on a contract-by-contract basis.

3. DBE Decertification: When the DSBSD or MWAA (referred to in this section individually or together as certifier) decertifies a DBE its participation will be counted toward the DBE goal as follows:

A. When the Contractor has made a commitment to use a decertified subcontractor, but a subcontract has not been executed, the decertified subcontractor's work does not count toward the DBE goal. The Contractor must meet the DBE goal with an eligible DBE to the extent needed to meet the DBE goal, or must demonstrate that it has made good faith efforts to do so.

B. When the Contractor has executed a subcontract before the certifier notified the subcontractor of its decertification, the Contractor may continue to use the subcontractor and may continue to receive credit toward the DBE goal for the subcontractor's work. In such case, however, the Contractor may not extend or add work to the subcontract after the subcontractor was notified of its decertification without the Department's prior written consent.

C. When the Department has awarded a contract to a DBE prime Contractor, but the Contract has not been executed before decertification, the decertified Contractor's work does not count toward the DBE goal. The Contractor must meet the DBE goal with an eligible DBE to the extent needed to meet the DBE goal or must demonstrate that it has made good faith efforts to do so.

D. When VDOT has executed a prime contract with a DBE firm that is later decertified, the portion of the decertified Contractor's performance of the Contract remaining after the certifier issued the notice of decertification may continue to count toward satisfying the DBE goal.

E. The following exceptions apply to this section on Decertification:

(1) When a certifier decertifies a DBE solely because it exceeds the business size standard during the performance of the Contract, the Department will continue to count the portion of the decertified DBE's performance of the Contract remaining after the firm received the notice of its decertification toward the DBE goal.

(2) When the DBE's decertification is because it was acquired by or merged with a non-DBE, the Department will not continue to count the portion of the decertified DBE's performance on the Contract remaining after the certifier decertified the DBE toward the Contract goal, even if the Contractor has executed a subcontract with the DBE or the Department has executed a prime contract with the DBE that was later decertified. If eliminating the credit of the decertified DBE firm will affect the Contractor's ability to meet the DBE goal, the Contractor must subcontract to an eligible DBE to the extent needed to meet the DBE goal, or must demonstrate that it has made a good faith effort to do so.

Performing a Commercially Useful Function (CUF)

No credit toward the DBE goal will be allowed for payments or expenditures to a DBE if that DBE does not perform a CUF on the Contract. A DBE performs a CUF when the DBE is solely responsible for execution of a distinct element of the Contract work and the DBE actually performs, manages, and supervises the work involved with the DBE's own forces or in accordance with the provisions of the **DBE Participation for Contract Goal Credit** section of this Special Provision. To perform a CUF the DBE alone shall be responsible and bear the risk for the material and supplies used on the Contract, selecting a supplier or dealer from those available, negotiating price, determining quality and quantity, ordering the material and supplies, installing those materials with the DBE's own forces and equipment where applicable, and paying for those materials and supplies itself. A determination as to whether the DBE is performing a CUF will be based on the amount of work subcontracted, industry practices, whether the amount the DBE firm is to be paid is commensurate with the work the DBE actually performs and the DBE credit claimed for the DBE's performance, and other relevant factors.

1. **Monitoring CUF Performance**: It shall be the Contractor's responsibility to ensure that all DBEs selected for subcontract work on the Contract, for which the Contractor seeks to claim credit toward the DBE goal, perform a CUF. Further, the Contractor is responsible for and shall ensure that each DBE fully performs the DBE's designated tasks with the DBE's own forces and equipment under the DBE's own direct supervision and management or in accordance with the provisions of the **DBE Participation for Contract Goal Credit** section of this Special Provision. For the purposes of this provision the DBE's equipment will mean either equipment directly owned by the DBE as evidenced by title, bill of sale or other such documentation, or leased by the DBE, and over which the DBE has control as evidenced by the leasing agreement from a firm not owned in whole or part by the prime Contractor or an affiliate of the Contractor.

   VDOT will monitor the Contractor's DBE involvement during the performance of the Contract. However, VDOT is under no obligation to warn the Contractor that a DBE's participation will not count toward the goal.

2. **DBEs Must Perform a Useful and Necessary Role in Contract Completion:** A DBE does not perform a CUF if the DBE's role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, the Department will examine similar transactions, particularly those in which DBEs do not participate.

3. **DBEs Must Perform the Contract Work With Their Own Workforces:** If a DBE does not perform and exercise responsibility for at least thirty (30) percent of the total cost of the DBE's contract with the DBE's own work force, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involve, VDOT will presume that the DBE is not performing a CUF and such participation will not be counted toward the Contract goal. In such event, the DBE may present evidence to rebut the presumption. The Department may determine that the DBE is performing a CUF given the type of work involved and normal industry practices. If the DBE does not rebut the presumption, no DBE credit will be given for the work.

4. **Final Determination On Whether a CUF Is Performed:** The Department has the final authority to determine whether a DBE has performed a CUF on the Contract. To determine whether a DBE is performing or has performed a CUF, VDOT will evaluate the amount of work subcontracted by that DBE or performed by other firms and the extent of the involvement of other firms' forces and equipment. Any DBE work performed by the Contractor or by employees or equipment of the Contractor shall be subject to disallowance, unless the independent validity and need for such an arrangement and work is demonstrated.

5. **Factors Used to determine if a DBE Trucking Firm is performing a CUF**

   A. To perform a CUF the DBE trucking firm must be responsible for the management and supervision of the entire trucking operation for which the DBE is responsible by subcontract on the Contract. There cannot be a contrived arrangement for the purpose of meeting the DBE goal, including, but not limited to, any arrangement that would not customarily and legally exist under regular construction project subcontracting practices;

   B. The DBE must own and operate at least one fully licensed, insured, and operational truck used in the performance of the Contract work. This does not include a supervisor's pickup truck or a similar vehicle that is not suitable for and customarily used in hauling the necessary materials or supplies;

   C. The DBE receives credit for the total value of the transportation services it provides on the Contract using trucks the DBE owns, insures, and operates using drivers that the DBE employs;

D. The DBE may lease trucks from another DBE firm, including from 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 firm provides on the Contract;

E. 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 for the total value of the transportation services provided by non-DBE leased trucks equipped with drivers, not to exceed the value of transportation services on the Contract provided by DBE-owned trucks or leased trucks with DBE employee drivers. For additional participation by non-DBE owned trucks equipped with drivers, the DBE receives credit only for the fee or commission it receives as a result of the lease arrangement, and only if the Department provides written consent in advance.

EXAMPLE

DBE Firm X uses two (2) of its own trucks on a contract. The firm leases two (2) trucks from DBE Firm Y and six (6) trucks equipped with drivers from non-DBE Firm Z.

	Source of Trucks	**Value of Transp. Services** (For Illustrative Purposes Only**)**
Firm X		
Truck 1	Owned by DBE	$100 per day
Truck 2	Owned by DBE	$100 per day
Firm Y		
Truck 1	Leased from DBE	$110 per day
Truck 2	Leased from DBE	$110 per day
Firm Z		
Truck 1	Leased from Non DBE	$125 per day
Truck 2	Leased from Non DBE	$125 per day
Truck 3	Leased from Non DBE	$125 per day
Truck 4	Leased from Non DBE	$125 per day
Truck 5	Leased from Non DBE**	$125 per day
Truck 6	Leased from Non DBE**	$125 per day

DBE credit would be awarded for the total transportation services provided by DBE Firm X and DBE Firm Y, and may also be awarded for the total value of transportation services by four (4) of the six (6) trucks provided by non-DBE Firm Z (not to exceed the value of transportation services provided by DBE-owned trucks).

Credit = 8 Trucks
Total Value of Transportation Services = $820

In all, full DBE credit would be allowed for the participation of eight (8) trucks (twice the number of DBE trucks owned and leased) and the dollar value attributable to the Value of transportation services provided by the 8 trucks.

** Note: With respect to the other two trucks provided by non-DBE Firm Z, DBE credit could be awarded only for the fees or commissions pertaining to those trucks that DBE Firm X receives as a result of the lease with non-DBE Firm Z.

F. The DBE may lease trucks without drivers from a non-DBE truck leasing company. If the DBE leases trucks from a non-DBE truck leasing company and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.

Example: DBE Firm X uses two of its own trucks on a contract. It leases two additional trucks from non-DBE Firm Z. Firm X uses its own employees to drive the trucks leased from Firm Z. DBE credit would be awarded for the total value of the transportation services provided by all four trucks.

G. For purposes of this section, the lease must indicate that the DBE leasing the truck has exclusive use of and control over the truck. This will not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, provided the lease gives the DBE absolute priority for and control over the use of the leased truck. Leased trucks must display the name and identification number of the DBE that has leased the truck at all times during the life of the lease.

Verification of DBE Participation

1. **Subcontracts:** Within fourteen (14) days after contract execution, the Contractor shall submit to the Responsible Engineer, with a copy to the District Civil Rights Office (DCRO), a fully executed subcontract agreement for each DBE used to claim credit in accordance with the requirements stated on Form C-112. The subcontract agreement shall be executed by both parties stating the work to be performed, the details or specifics concerning such work, and the price which will be paid to the DBE subcontractor. Because of the commercial damage that the Contractor and its DBE subcontractor could suffer if their subcontract pricing, terms, and conditions were known to competitors, the Department staff will treat subcontract agreements as proprietary Contractor trade secrets with regard to Freedom of Information Act requests. In lieu of subcontract agreements, purchase orders may be submitted for haulers, suppliers, and manufacturers. These too, will be treated confidentially and protected. Such purchase orders must contain, as a minimum, the following information: authorized signatures of both parties; description of the scope of work to include contract item numbers, quantities, and prices; and required federal contract provisions.

2. **Form C-63:** The Contractor shall also furnish, and shall require each subcontractor to furnish, information relative to all DBE involvement on the project for each quarter or at another time interval determined by VDOT and communicated to the Contractor during the life of the Contract in which participation occurs and verification is available. The information shall be indicated on Form C-63, DBE and SWAM Payment Compliance Report. The Department reserves the right to request proof of payment via copies of cancelled checks with appropriate identifying notations. Failure to provide Form C-63 to the DCRO within five (5) business days after the reporting period may result in delay of approval of the Contractor's monthly progress estimate for payment. The names and certification numbers of DBE firms provided by the Contractor on the various forms indicated in this Special Provision shall be exactly as shown on the DSBSD's or MWAA's latest list of certified DBEs. Signatures on all forms indicated herein shall be those of authorized representatives of the Contractor as shown on the Prequalification Application, Form C-32 or the Prequalification/Certification Renewal Application, Form C-32A, or authorized by letter from the Contractor. If DBE firms are used which have not been previously documented with the Contractor's bid and for which the Contractor now desires to claim credit toward the project goal, the Contractor shall be responsible for submitting necessary documentation in accordance with the procedures stipulated in this Special Provision to cover such work prior to the DBE beginning work. Form C-63 can be obtained from the VDOT website at: https://vdotforms.vdot.virginia.gov/.

3. **Project Schedule Narrative:** The Contractor shall submit to the Engineer with a copy to the DCRO, a project schedule narrative with each progress schedule submission as required by Section 108.03 of the Specifications or other such specific contract scheduling specification or

VDOT-requested updates. The Contractor shall include a log of applicable DBE activities relative to work activities of the Contractor's progress schedule, including the approximate start times and durations of all DBE participation to be claimed for credit that shall result in full achievement of the DBE goal required in the Contract.

Narratives or other agreeable format of schedule information requirements and subsequent progress determination shall be based on the commitment information shown on the latest Form C-111 as compared with the appropriate Form C-63. On contracts awarded on the basis of good faith efforts, narratives or other agreeable format of schedule information requirements and subsequent progress determination shall be based on the commitment shown on the latest Form C-111 as compared with the appropriate Form C-63.

4. **Revised Form C-111:** Prior to beginning any major component or quarter of the work, as applicable, in which DBE work is to be performed, the Contractor shall furnish a revised Form C-111 showing the name(s) and certification number(s) of any current DBEs not previously submitted who will perform the work during that major component or quarter for which the Contractor seeks to claim credit toward the Contract DBE goal. The Contractor shall obtain the prior approval of the Department for any assistance it may provide to the DBE beyond its existing resources in executing its commitment to the work in accordance with the requirements listed in the section on **Good Faith Efforts Described** of this Special Provision. If the Contractor is aware of any assistance beyond a DBE's existing resources that the Contractor, or another subcontractor, may be contemplating or may deem necessary and that have not been previously approved, the Contractor shall submit a new or revised narrative statement for VDOT's approval prior to assistance being rendered.

If the Contractor fails to correctly complete and submit any of the required documentation required by this Special Provision within the specified time frames, the Department will withhold payment of the monthly progress estimate until such time as the required submissions are received. Where such failures to provide required submittals or documentation are repeated the Department may disqualify the Contractor, the Contractor's members in the case of a joint venture, and any of the Contractor's affiliates, from bidding as a prime Contractor, or participating as a subcontractor on VDOT projects until such submissions are received in accordance with the section on **Disqualification of Contractor** of this Special Provision.

Documentation Required for Semi-Final Payment

On those projects nearing completion, the Contractor must submit Form C-63 marked "Semi- Final" within twenty (20) days after the submission of the last regular monthly progress estimate to the DCRO. The form must include each DBE used on the Contract work and the work performed by each DBE. The form shall include the actual dollar amount paid to each DBE for the accepted creditable work on the Contract. The form shall be certified under penalty of perjury, or other applicable law, to be accurate and complete. The Department will use this certification and other information available to determine applicable DBE credit allowed to date by the Department and the extent to which the DBEs were fully paid for that work. The Contractor shall acknowledge by the act of filing the form that the information is supplied to obtain payment regarding a federal participation contract. A letter of certification, signed by both the Contractor and appropriate DBEs, will accompany the form, indicating the amount including retainage, if any, that remains to be paid to the DBEs.

Documentation Required for Final Payment

On those projects that are complete, the Contractor shall submit a final Form C-63 marked "Final" to the DCRO, within thirty (30) days after the final estimate. The form must include each DBE used on the Contract and the work performed by each DBE. The form shall include the actual dollar amount paid to each DBE for the creditable work on the Contract. VDOT will use this form and other information available to determine if the Contractor and DBEs have satisfied the DBE goal percentage

specified in the Contract and the extent to which credit was allowed. The Contractor shall acknowledge by the act of signing and filing the form that the information is supplied to obtain payment regarding a federal participation contract.

Prompt Payment Requirements

The Contractor shall promptly pay DBEs in accordance with the requirements of the USDOT DBE Program, § 2.2-4354 of the Code of Virginia, and the Contract, including but not limited to, Sections 107.01, 109.08, 109.09, and 109.10 of the Specifications, and the following.

1. Within seven (7) days after the Contractor's receipt of amounts paid by the Department for work performed by the DBE, the Contractor shall either pay the DBE for its share of the total payment received attributable to the work the DBE performed; or shall notify the Department and the DBE in writing of the Contractor's intention to withhold all or a part of the DBE's payment along with the reasons for nonpayment.

2. In the event that the Contractor has not received payment from the Department for work performed by a DBE under the Contract, the Contractor shall be liable for the entire amount owed to such DBE and shall pay such DBE within sixty (60) days of the receipt of an invoice following satisfactory completion of the work for which the DBE has invoiced. The Contractor shall not be liable for amounts otherwise reducible due to the DBE's noncompliance with the terms of the Contract. However, in the event that the Contractor withholds all or a part of the amount invoiced by the DBE under the terms of the Contract, the Contractor shall notify the DBE within fifty (50) days of the receipt of such invoice, in writing, of its intention to withhold all or a part of the DBE's payment with the reason for nonpayment, specifically identifying the contractual noncompliance, the dollar amount being withheld, and the lower-tier subcontractor (if any) responsible for the contractual noncompliance. Payment by the Department shall not be a condition precedent to the Contractor's payment to any DBE, regardless of the receipt of payment for amounts owed to the Contractor. Any provision in a subcontract to the contrary shall be unenforceable.

3. For the purposes of this Special Provision:

   A. Payment of the DBE's portion of the work shall mean the Contractor has issued payment in full, less agreed upon retainage, if any, to the DBE for that portion of the DBE's work that VDOT paid to the Contractor on the monthly progress estimate.

   B. A DBE's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished, documented, and accepted as required by the contract documents by the Department.

   C. When the Department has made partial acceptance of a portion of the Contract, the work of any DBE covered by that partial acceptance is deemed to be satisfactorily completed.

4. **Retainage:** Nothing contained herein shall preclude the Contractor from withholding retainage or withholding payment to the DBE in accordance with the terms of the subcontract in order to protect the Contractor from loss or cost of damage due to a breach of agreement by the DBE. The Contractor shall make prompt and full payment of any retainage held by the Contractor within 30 days after the DBE's work is satisfactorily completed.

5. If the Contractor fails to make payment for the DBE's portion of the work within the time frame specified herein, the DBE shall notify the Department and the Contractor's bonding company in writing. Upon such written notice, the Contractor's bonding company and the Department will investigate the cause for nonpayment. Barring mitigating circumstances that would make the DBE ineligible for payment, the Contractor's bonding company shall be responsible for insuring payment to the DBE in accordance with the requirements of the Contract and the Contractor's payment bond.

6. The Contractor agrees to assume these prompt payment obligations, and to bind the Contractor's subcontractors contractually to these obligations.

Termination of DBE

1. Requirements for Termination of DBE

A. The Contractor must utilize the specific DBEs listed on its Form C-111 to perform the work and supply the materials for which each is listed. The Contractor is prohibited from terminating a DBE or any portion of a DBE's work without the prior written consent of the Department, unless the Department is the cause of the termination or reduction in work. A termination includes any reduction or underrun in work listed for a DBE not caused by a material change to the Contract by the Department. The prohibition applies to instances that include, but are not limited to, when the Contractor seeks to perform work originally designated for a DBE with its own forces or those of an affiliate, a non-DBE, or another DBE.

Unless the Department provides consent in advance for the Contractor to use a different DBE, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

B. The Department will consent only if the Department determines, for reasons stated in its response to the Contractor's request, that the Contractor has good cause to terminate the listed DBE or eliminate any portion of the DBE's work.

C. Good cause does not exist if the Contractor seeks to terminate a DBE or eliminate any portion of its work that the Contractor relied upon to obtain the Contract so that the Contractor can self-perform the work for which the DBE contractor was engaged, or so that the Contractor can substitute another DBE or non-DBE subcontractor after Contract award. Good cause includes the following circumstances:

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

(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 or disqualification proceedings pursuant to applicable state or federal law;

(6) VDOT determines that listed DBE subcontractor is not a responsible contractor;

(7) The listed DBE subcontractor voluntarily withdraws from the project and provides VDOT with written notice of its withdrawal;

(8) The listed DBE subcontractor 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 contractor is unable to complete its work on the Contract;

(10) Other documented good cause.

D. Prior to transmitting a request to terminate a DBE subcontractor to the Department, the Contractor must give notice in writing to the DBE subcontractor, with a concurrent copy to the DCRO, of its intent to request termination and the reason for the proposed termination request. The written notice must give the DBE five (5) days to respond, advising the DCRO and the Contractor of the reasons, if any, why the DBE objects to the proposed termination of its subcontract and why the Department should not approve the prime Contractor's request. The Department may authorize a response period shorter than five (5) days if required for public safety. The Department will consider both the Contractor's request and the DBE's response and explanation before approving the Contractor's termination and substitution request, or determining if any action should be taken against the Contractor.

E. All Contractor requests to terminate, substitute, or replace a certified DBE shall be in writing, and shall include the following information:

(1) The date the Contractor determined the DBE to be unwilling, unable, or ineligible to perform;

(2) The projected date that the Contractor shall require a substitution or replacement DBE to commence work if consent is granted to the request;

(3) A brief statement of facts describing and citing specific actions or inaction by the DBE giving rise to the Contractor's assertion that the DBE is unwilling, unable, or ineligible to perform;

(4) A brief statement of the affected DBE's capacity and ability to perform the work as determined by the Contractor;

(5) A brief statement of facts regarding actions taken by the Contractor which are believed to constitute good faith efforts toward enabling the DBE to perform;

(6) The current percentage of work completed on each bid item by the DBE;

(7) The total dollar amount currently paid per bid item for work performed by the DBE;

(8) The total dollar amount per bid item remaining to be paid to the DBE for work completed, but for which the DBE has not received payment, and with which the Contractor has no dispute;

(9) The total dollar amount per bid item remaining to be paid to the DBE for work completed, but for which the DBE has not received payment, and over which the Contractor and/or the DBE have a dispute.

2. Substitution of DBE

When the Contractor terminates a DBE or any portion of the DBE's work, or if work committed to a DBE is reduced due to overestimations made prior to award, the Contractor shall use good faith efforts to include additional DBE participation to the extent needed to meet the DBE goal. The Contractor shall document its good faith efforts. If the Department requests the Contractor's good faith documentation, the Contractor shall submit the documentation within seven (7) days, which may be extended for an additional seven (7) days at the Contractor's request.

When a DBE substitution is necessary, the Contractor shall submit a revised Form C- 111 with the name of another DBE firm, the proposed work to be performed by that firm, and the dollar amount of the work to replace the unfulfilled portion of the work of the originally committed DBE firm. In addition, the Contractor shall submit a revised Form C-48, a Form C-112, and a copy of the subcontract for the requested substitute DBE in accordance with this Special Provision.

Should the Contractor fail to submit the documentation and information as required any work performed by the substitute DBE will not be counted toward the Contract goal.

Should the Contractor be unable to find another DBE to perform at least the same amount of work under the Contract as the terminated DBE, the Department will review the quality, thoroughness, and intensity of the Contractor's good faith efforts. Efforts that are viewed by the Department as merely superficial or pro-forma will not be considered good faith efforts to meet the Contract goal for DBE participation. The Contractor must document the steps taken that demonstrated its good faith efforts to obtain participation as set forth in the section on **Good Faith Efforts Described** of this Special Provision. The Department will provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

Disqualification of Contractor

Contractors may be disqualified from bidding for failure to comply with the requirements of this Special Provision. Disqualification means the suspension or revocation of the Contractor's prequalification privileges. The disqualification of the Contractor will also result in the disqualification of each member of the joint venture when the Contractor is a joint venture, and disqualification of any affiliate of the Contractor.

Prior to disqualification as provided herein, the Contractor may submit documentation to the State Contract Engineer to substantiate that the failure to meet the DBE requirement was due solely to quantitative underrun(s), elimination of items subcontracted to DBEs, or to circumstances beyond their control, and that all feasible means have been used to obtain the required participation.

The State Contract Engineer upon evaluation of such documentation shall make a determination whether or not the Contractor has met the requirements of the Contract. Prior to the issuance of a written determination of disqualification, the State Contract Engineer shall (i) notify the Contractor in writing of the results of the evaluation, (ii) disclose the factual support for the determination, and (iii) allow the Contractor an opportunity to inspect any documents that relate to the determination, if so requested by the Contractor within five (5) business days after receipt of the notice.

Within ten (10) business days after receipt of the notice, the Contractor may submit rebuttal information challenging the evaluation. The State Contract Engineer shall issue the written determination of disqualification or ineligibility based on all information in the possession of the Department, including any rebuttal information, within five (5) business days of the date the State Contract Engineer received such rebuttal information.

If the State Contract Engineer's evaluation reveals that the Contractor met the requirements of the Contract, the State Contract Engineer shall cancel the proposed disqualification action. If the State Contract Engineer's evaluation reveals that the Contractor should be disqualified from bidding, the State Contract Engineer shall so notify the Contractor. The decision of the State Contract Engineer to disqualify the Contractor shall state the basis for the determination, which shall be final unless the Contractor appeals the decision within ten (10) calendar days after receipt of the decision by instituting a legal action as provided in Va. Code § 2.2-4364.

If the decision is made to disqualify the Contractor as described herein, the disqualification period will begin upon the Contractor's failure to institute a legal action to appeal the decision within the designated time frame, or upon a court's decision upholding or affirming the disqualification decision, as applicable.

As used in this Special Provision, "all feasible means" refers to reasonable good faith efforts to obtain sufficient DBE participation to meet the DBE goal in accordance with the section on **Good Faith Efforts Described** of this Special Provision.

Criminal or Fraudulent Conduct

1. **Criminal Conduct:** Failure of a bidder, Contractor, or subcontractor to comply with the Virginia Department of Transportation Road and Bridge Specifications and these Special Provisions wherein there appears to be evidence of criminal conduct shall be referred to the Attorney General for the Commonwealth of Virginia and/or the FHWA Inspector General for criminal investigation and, if warranted, prosecution.

2. **Suspected DBE Fraud:** In appropriate cases, VDOT will bring to the attention of the U. S. Department of Transportation (USDOT) any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take the steps, e.g., referral to the Department of Justice for criminal prosecution, referral to the USDOT Inspector General, action under suspension and debarment or Program Fraud and Civil Penalties rules provided in 49 CFR Part 31.

SP107-003000-01

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
BUILD AMERICA, BUY AMERICA ACT REQUIREMENTS FOR CONSTRUCTION MATERIALS

June 8, 2023

SECTION 107.03 FEDERAL AID PROVISIONS of the Specifications is amended to include the following:

In accordance with the provisions of the Build America, Buy America Act (BABA), Public Law, No. 117-58, §§ 70901-70953, and any implementing regulations or policies (hereinafter referred to together as "BABA Requirements"): except as otherwise specified, all construction materials that are to be permanently incorporated for use on federal aid projects (hereinafter be referred to as "BABA Construction Materials") shall be manufactured in the United States of America. Note that the provisions herein do not apply to iron and steel, which are addressed in another provision of the Contract.

BABA Construction Materials. Manufactured in the United States of America means that at least the final manufacturing process and the immediately preceding manufacturing stage for the construction materials, and any other stages in the manufacturing process that are specified in the BABA Requirements or FHWA guidance, all occurred in the United States.

BABA Construction Materials, as defined and designated in the BABA Requirements, include any article, material, or supply that is or consists primarily of:

- Non-ferrous metals;
- Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- Glass (including fiber optic glass);
- Lumber; or
- Drywall.

Any items that consist of at least one of the listed BABA Construction Materials combined together through a manufacturing process with another listed BABA Construction Material or with a non-listed item are considered to be "Manufactured Products" under BABA, not BABA Construction Materials. Therefore, the BABA requirements for "Manufactured Products" and FHWA guidance would apply.

The BABA Construction Materials requirements do not apply to: cement and cementitious materials; aggregates such as stone, sand, or gravel; aggregate binding agents (including asphalt cement) or additives; or any material composed of or derived from these items.

Waivers:

The process for receiving a waiver of BABA requirements for construction materials is provided at BABA § 70914(b) through (d), and any federal regulations adopted in accordance with this law. Other than any FHWA or other Federal agency waivers of general applicability that may be in effect, the Contractor shall not anticipate that any BABA provisions will be waived.

Certification of Compliance:

The Contractor is required to submit a Certificate of Compliance prior to incorporating any items into the project containing any of the above-listed BABA Construction Materials. This shall be accomplished

by the Contractor submitting the appropriate Form C-76A Certificate of Compliance to the Department when the items are delivered to the project site. The Certificate of Compliance will certify that the final manufacturing process and the immediately preceding manufacturing stage for the construction materials occurred in the United States. The certificate must be signed and dated by the Prime Contractor's Superintendent and include a BABA Requirements Submittal Number, which is simply the Contractor's project specific sequential numbering system that will allow the Contractor and Department to track the total number of certificates provided and the individual construction materials associated with each certificate.

Supporting Documentation:

Supporting documentation to demonstrate compliance with BABA provisions (such as manufacturer/supplier certifications, etc.) shall be organized by BABA Requirements Submittal Number, and shall be maintained by the Contractor and available for examination from the date of delivery until three years after project acceptance. The Contractor may maintain this documentation electronically or in paper format.

The Department or FHWA may review the Contractor's supporting documentation to verify compliance with the BABA Requirements for construction materials at any time upon request. Supporting documentation shall be provided within five business days of the request. The burden of proof to meet the BABA Requirements for construction materials rests with the Contractor. If the supporting documentation does not undeniably demonstrate to FHWA or the Department that the BABA Construction Materials identified in the Certificate of Compliance were produced in the United States, then such construction materials will be considered unacceptable and must be replaced at no cost to the Department, and if not replaced the Department, in addition to other rights and remedies, may have them replaced and deduct the cost of removal and replacement from any moneys due or that become due the Contractor in accordance with Section 106.10 of the Specifications.

SP108-000100-01

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
PROGRESS SCHEDULES FOR CATEGORY I PROJECTS

March 21, 2022

Section 103.06(e) **Progress Schedule** of the Specifications is deleted and replaced by this provision.

Section 108.03 Progress Schedule of the Specifications is deleted and replaced by this provision.

I. General Requirements

The Contractor shall develop and maintain a Progress Schedule for the entire duration of the Project, which shall be used by all involved parties to plan and execute all work required to complete the Project. The Progress Schedule will be used by the Department to monitor the project, assess progress, and evaluate the effects of time-related issues on the project. Unless specifically stated otherwise, 'days' shall be understood as calendar days.

At the Pre-Construction Conference, in accordance with Section 105.02 or as mutually agreed upon by the Engineer and the Contractor, the Contractor shall attend a Scheduling Conference with the Engineer to discuss the Contractor's overall plan to accomplish the Work. The Contractor shall also discuss its detail work plan for the initial sixty (60) days; as well as project specific requirements and other key issues that are expected to impact the Progress Schedule or are necessary for the preparation, maintenance, and submittal of the Progress Schedule.

II. Progress Schedule Submissions

Unless otherwise directed in writing by the Engineer, the Contractor shall prepare, maintain, and submit a Progress Schedule in accordance with the following requirements:

1. Baseline Progress Schedule

Within fifteen (15) days of the Contract execution date or within seven (7) days prior to beginning work, whichever occurs first, the Contractor shall submit to the Engineer for review and acceptance, a Baseline Progress Schedule representing the Contractor's original complete detailed plan to accomplish the entire scope of the Project according to the Contract. Upon acceptance by the Engineer, the Baseline Progress Schedule shall become the Schedule of Record (SOR). The Baseline Progress Schedule submission shall consist of:

A. **Baseline Schedule** – A logic driven Baseline Schedule depicting all detailed activities required to complete the entire scope of the Project, including as applicable, work to be performed by subcontractors, the Department, and other involved parties. The Baseline Schedule shall be prepared and submitted according to the following:

(1) **Software**: The Baseline Schedule shall be prepared using any scheduling software of the Contractor's choosing that is capable of meeting the detail requirements as specified herein. However, an electronic backup copy of the Baseline Schedule shall be submitted in any of the following acceptable file formats Primavera P6 (XER), Microsoft Project (MPP, XML), or Microsoft Excel (XLS) based on the software.

(2) Project ID and Name: The Project ID and Name for each submission shall be unique and defined as follows:

(a) For Project Schedules prepared in the Primavera P6 software, the Project ID shall be defined using the Contract ID as a prefix followed by a short ID indicating the specific version of the schedule (PS01, BS, BSR1, etc.). For example, Baseline Schedule (C000XXXXXXX_BS, C000XXXXXXX_BSR1, etc.). And the Project Name shall reflect the Project Description as shown in the Contract, appended to indicate the specific version of the schedule (e.g., Route 10 Over I-95 Bridge Replacement Baseline Schedule).

(b) For Project Schedules prepared in the Microsoft Project software, the Project Name (Title) shall be defined using the Contract ID as a prefix followed by a short ID indicating the specific version of the schedule (PS01, BS, BSR1, etc.). For example, Baseline Schedule (C000XXXXXXX_BS, C000XXXXXXX_BSR1, etc.).

(3) **Work Breakdown Structure (WBS):** The Baseline Schedule shall be organized using a logical Project Work Breakdown Structure (WBS). The Work shall be broken down to an appropriate level of WBS nodes and sub-nodes to allow for a hierarchical grouping and summarization of related activities required to complete each phase, feature, deliverable, or work package, as appropriate. Each WBS element shall be defined using a short alpha-numeric WBS Code and a WBS Name describing the WBS element. At a minimum, the WBS shall include as applicable:

(a) **Level 1:** "Milestones" node for all Contract and other key milestones; "Preliminary" node for all pre-construction activities; and "Construction" node for all construction activities.

(b) **Level 2:** Under the "Preliminary" node, Level 2 "Submittals", "VDOT Review", "Materials" sub-nodes for all initial activities such as submittals, VDOT reviews, long lead materials, etc. Under the "Construction" node, Level 2 "General/Start-up", "Phase" or "Feature of Work", and "Close-out" sub-nodes, as applicable.

(c) **Level 3:** Under the "Phase" or "Feature of Work" node, Level 3 sub-nodes for "Sub-features" or "Location" for all associated construction activities, as applicable.

(4) **Level of Details:** The Work shall be broken down into discrete activities to an appropriate level of detail to allow for identification of work by the responsible party; as well as the type, amount, and specific location of work the activity represents.

(5) **Activity Definition:** Activities shall be discrete and shall be defined as follows:

(a) Each activity shall be defined using a unique Activity ID which shall remain unchanged throughout the duration of the Project. If an activity is deleted in a subsequent submission, the corresponding Activity ID shall not be used for any other activity. If the Project Schedule is prepared and submitted using Microsoft Project, then a "Unique Activity ID" Custom Field shall be defined using the "Text1" data field with formula set to equal "Unique ID".

(b) Each activity shall be defined using an Activity Name to indicate the type of work, phase (or stage), and specific location in which the work occurs, as applicable (e.g., Drive Steel Piles - Phase 1 - Abut A). For work to be performed by the Department or other contractors, and third parties, the Activity Name shall include "VDOT" or the name of the corresponding responsible party.

(c) Activity durations shall be defined in whole days based on the assigned calendar. For activities such as "Concrete Cure Time", that are not restricted by a standard working calendar, activity durations shall be expressed in terms of calendar days. Activity durations shall be limited to twenty (20) work days, unless otherwise accepted by the

Engineer. Longer durations may be allowed as approved by the Engineer for certain administrative, level of effort, or procurement activities that are typically performed over longer periods of time.

(6) **Calendars:** Each activity shall be assigned a project-level calendar to establish the planned work days per week and any non-work days for holidays, weather days, or other restrictions, as applicable. Regardless of the actual or planned work hours/day, all calendars shall be based on a standard 8 work hours/day, with the same daily start and finish times. If the Project Schedule is prepared and submitted using Microsoft Project, then a "Calendar" Custom Field shall be defined using the "Text2" field with formula set to equal "Task Calendar". Once the Baseline Schedule is accepted, any changes to calendars shall be identified and explained in the accompanying Schedule Narrative.

(7) **Network Logic:** Logic relationships shall be assigned to each activity to establish the sequence in which the Contractor plans to accomplish the Work and as follows:

(a) Activity relationship types shall be limited to finish-to-start (FS), start-to-start (SS), and finish-to-finish (FF).

(b) All activities, except the first activity shall be assigned at least one predecessor relationship and all activities, except the last activity shall be assigned at least one successor relationship.

(c) If an activity is assigned as a predecessor with a start-to-start (SS) relationship, then the activity must also be assigned as a predecessor to another related activity with a finish-to-start (FS) or finish-to-finish (FF) relationship, as applicable.

(d) The Contractor shall avoid the use of redundant logic relationships when possible.

(e) The use of lag shall be prohibited unless approved by the Engineer. The Contractor shall remove any lag and replace with an activity upon the request of the Engineer. When lags are used, the Contractor shall provide an explanation for use of the lags in the Schedule Narrative.

(8) **Constraints:** Use of Constraints shall be limited to milestones specified in the Contract, unless approved by the Engineer. Constraints shall be applied as follows:

(a) For Contracts that include a specified milestone that restricts the start date of an activity, the activity shall be constrained with a "Start No Later Than" or "Start No Earlier Than" constraint, as applicable, with the date specified in the Contract.

(b) For Contracts that include a specified milestone that establishes a completion date deadline such as Interim Completion or Substantial Completion, the Contract milestone activity shall be constrained with a "Finish On or Before" (Finish No Later Than) constraint, with the date specified in the Contract.

(c) Constraints such as "Start On" (Must Start On) or "Finish On" (Must Finish On) that delays the start or finish date of an activity to the specified date as allowed by network logic, or "Mandatory Start" or "Mandatory Finish" that violate network logic are prohibited.

(9) Progress As-built Information: The Baseline Schedule shall reflect the current status of the Project and all known information at the time of submission. The Baseline Schedule shall include any progress as-built information showing actual dates for all completed and on-going activities, as of the Data Date, as applicable. The Baseline Schedule shall be calculated using a Data Date as follows:

a) If the Baseline Schedule includes progress as-built information, then the Data Date shall be within three (3) days of the date of submission.

b) If the Baseline Schedule does not include progress as-built information, then the Data Date shall be the Contract execution date or the planned start date of the first activity, whichever is earlier.

B. Baseline Schedule Narrative – A Baseline Schedule Narrative describing the Contractor's overall plan to accomplish the Work. The Baseline Schedule Narrative shall be the basis for the Baseline Schedule and shall provide the following supporting information, as applicable:

1. Milestones: Current status of the Project milestones including, as applicable Contract milestones and other key events such as major traffic switches.

2. Work By Others: Work to be performed by the Department and other involved parties (e.g., utilities), including activities requiring coordination; and a description of when the work must be performed to avoid impacts to the Work.

3. Overall Sequence of Work: Explanation of the proposed overall sequence of Work, including where the Work will begin and how the Work and crews will flow through the Project.

4. Project Critical Path: Description of the project critical path indicating the series of operations that are expected to drive the completion date of the project. A listing of the Project Schedule critical path activities will not be accepted as a substitute.

5. Scheduling Assumptions: Scheduling assumptions including, the general procedures and anticipated daily production rates for major operations that are expected to drive the schedule.

6. Lags: Identification of all logic relationships with Lag and explanation for the use of each Lag.

7. Constraints: Identification of all schedule Constraints used in the Baseline Schedule and an explanation for the use of each Constraint.

8. Calendars: Description of the project calendar(s) used in the Baseline Schedule, identifying the Calendar and the proposed number of work days per week, number of shifts per day, and number of hours per day. Also, the anticipated number of non-working days per month shall be identified for each calendar with considerations, as applicable, for holidays, normal adverse weather conditions; as well as seasonal or other known or specified restrictions (i.e. traffic, local events, environmental, permits, utility, etc.).

9. Resource Plan: The Contractor's resource plan indicating the number and type of crews, crew make-up, and major equipment needed to accomplish the Work as planned. The resource plan shall also explain how the Contractor plans on meeting the resource requirements as reflected on the Baseline Schedule.

10. DBE Participation: Log of the applicable DBE participation activities in the schedule and the DBE firms performing the work for which the Contractor intends to claim credit for attaining the DBE goal required in the Contract. The list shall indicate the start/finish dates and durations of the DBE participation activities.

11. Issues and Concerns: Any known or foreseeable issues or concerns that are currently affecting or anticipated to affect the schedule. Also, describe how the issues will affect the schedule and any actions taken or needed to avoid or mitigate the impact.

C. Baseline Progress Earnings Schedule – A Baseline Progress Earnings Schedule showing the anticipated monthly earnings for the entire Project. A Baseline Progress Earnings Schedule is not required for projects with overall contract duration of ninety (90) days or less. The Baseline Progress Earnings Schedule submission shall be prepared using the VDOT Form C-13C as follows:

1. The Breakdown of Contract Items form shall be completed to show the bid items and costs associated with each Major Work Category.

2. The C-13C (Baseline) form shall be completed to show all required information and the monthly anticipated earnings for each Major Work Category.

3. The C-13C (Update) form shall be completed to show the current Projected Completion Date, Current Estimate Date, and actual monthly earnings, and anticipated earnings for each Major Work Category as of the Current Estimate Date.

4. The Controls Chart Data form shall be completed to show the Actual Monthly Earnings for each estimate date, as of the Current Estimate Date.

2. **Update Progress Schedule**

After the Baseline Progress Schedule is accepted, on a monthly basis thereafter, and within seven (7) days after the estimate date, the Contractor shall submit an Update Progress Schedule submission to the Engineer for review and acceptance. The Update Progress Schedule submission shall represent the current status of the Project and the Contractor's current plan to complete the remaining Work. The Update Progress Schedule submission shall consist of:

A. **Update Schedule** – An Update Schedule, which shall be based on a copy of the most recent accepted Project Schedule and shall be prepared according to the following:

(1) The Project ID for each submission shall be updated to indicate the specific Update Schedule version (e.g., C000XXXXXXX_U01, C000XXXXXXX_U01R1, C000XXXXXXX_U02). And the Project Name shall be updated to indicate the specific version of the schedule.

(2) All activities completed prior to the Data Date shall be updated to show actual start and actual finish dates. And all on-going activities shall be updated to show actual start dates and remaining duration to indicate the amount of time required to complete the remaining work as of the Data Date. Actual dates on or after the Data Date are prohibited.

(3) Activity percent complete for on-going activities shall be based on cost of work completed as of the Data Date relative to the total cost of work planned.

(4) All schedule related changes requested or approved by the Engineer shall be incorporated into the Update Schedule, including as applicable, added or deleted work, changes to Contract Milestones, changes in sequence of work, changes in duration, changes to Contract Amount, and other time-related changes.

(5) The Update Schedule shall be calculated using a Data Date of either the 4th, 11th, or 20th of the month, based on the Contractor's estimate date as defined in Section 109.08(a) – Partial Payments, of the Specifications.

B. **Update Schedule Narrative** – An Update Schedule Narrative describing the current status of the project, deviations from scheduled performance, and changes in Contractor's work plan, and the current work plan for accomplishing the remaining work as of the Data Date. The Schedule Update Narrative shall include a description of:

1. Milestones: The current status of scheduled Milestone dates, including a description of any deviations from the last accepted Project Schedule and the Contract. The Contractor shall provide an explanation for any Milestone that is scheduled to occur later than the date specified in the Contract and any actions taken or proposed to correct the delay.

2. Progress % Complete: The current status of the Project in terms of earnings relative to the SOR, based on the Progress Earnings Schedule. If progress is falling behind, provide an explanation for the progress deficiency and any actions taken or proposed to correct the deficiency.

3. Work Performed Last Period: The work performed during the last update period and any deviations from the work scheduled. A listing of the Project Schedule activities will not be accepted as a substitute.

4. Changes in Work Plan: Any major changes in the Contractor's work plan in terms of sequence of construction, shifts, means and methods, manpower, or equipment.

5. Changes to Schedule: Any non-progress changes made to the Project Schedule since the previous submission including, changes requested or approved by Engineer. Also, any justification why changes requested by the Engineer should not be accomplished. A Claim Digger report or Schedule Comparison report will not be accepted as a substitute.

6. Project Critical Path: The critical path work and any deviations from the previous submission. A listing of the Project Schedule critical path activities will not be accepted as a substitute.

7. Days Lost Last Period: Number of days lost during the last update period, including affected activities; as well as any impacts on the critical path or project milestones. Also, describe any actions taken or proposed to mitigate any resulting delays.

8. DBE Participation: Log of the applicable DBE participation activities in the schedule and the DBE firms performing the work for which the Contractor intends to claim credit for attaining the DBE goal required in the Contract. The list shall indicate the start/finish dates and durations of the DBE participation activities.

9. Pending Contract Issues: The status of pending issues such as access, permits, conflicts with other related or adjacent work, Change Orders, time extension requests, etc.

10. Issues and Concerns: Any issues encountered during the last update period that are currently affecting the Project Schedule or other Project concerns that are anticipated to affect the schedule, including an explanation of any corrective actions taken or required to mitigate or avoid the effects.

11. Work Planned Next Period: Work planned for the next update period, including any actions needed or expected performance by the Department or other involved parties (e.g., utilities) to avoid impacts to the Work.

C. **Update Progress Earnings Schedule –** An Update Progress Earnings Schedule showing the actual progress earnings to date and the projected earnings for the remaining periods, as of the Data Date. An Update Progress Earnings Schedule is not required for projects with overall contract duration of ninety (90) days or less. The Update Progress Earnings Schedule shall be prepared as follows:

(1) The C-13C (Baseline) form shall be updated to show the current Projected Completion Date based on the current Update Schedule.

(2) The C-13C (Update) form shall be completed to show the current Projected Completion Date, Current Estimate Date, and actual monthly earnings, and anticipated earnings for each Major Work Category as of the Current Estimate Date.

(3) The Controls Chart Data form shall be completed to show the Actual Monthly Earnings for each estimate date to date, as of the Current Estimate Date.

3. **Revised Baseline Progress Schedule**

The Contractor shall submit a Revised Baseline Progress Schedule as determined by the Engineer. The Engineer may determine that a Revised Baseline Progress Schedule is required when:

A. The Engineer determines that the Work is being performed significantly different from the SOR; or the Engineer approves changes to the Contract that significantly impacts the Project Schedule or causes a major shift in the anticipated progress earnings. In which case, the Engineer will issue a written notice to the Contractor to submit a Revised Baseline Progress Schedule. The Contractor shall respond in writing within seven (7) days, either agreeing to comply with the Engineer's request or providing justification why the request should not be accomplished.

B. The Contractor proposes to perform the Work significantly different from the SOR. In which case, the Contractor shall notify the Engineer in writing at least 14 days prior to performing the Work. The Contractor's notice shall describe the proposed changes and potential impact on the Project Schedule. The Engineer will respond in writing within seven (7) days of the Contractor's notice, either agreeing with the Contractor's proposed revisions or providing reasons why the requested revisions should not be accomplished.

If the Engineer requests a Revised Baseline Progress Schedule or accepts the Contractor's proposed revisions, the Contractor shall submit a Revised Baseline Progress Schedule in lieu of the subsequent required Update Progress Schedule submission or as requested by the Engineer.

If the Engineer does not accept the Contractor's proposed revisions, the Contractor shall not incorporate the proposed revisions into the Project Schedule. In which case, the Contractor shall proceed under the previously accepted Progress Schedule and the current SOR shall remain.

The Revised Baseline Progress Schedule shall be prepared and submitted in the form of a Baseline Progress Schedule, according to Section II.1 above; however, it shall reflect the current status of the Project as of the submittal date, any approved changes in the Work, and the proposed plan for completing the remaining Work. The Revised Baseline Progress Schedule submission shall consist of:

A. **Revised Baseline Schedule** – A Revised Baseline Schedule, which shall be based on the most recent accepted Project Schedule. The Revised Baseline Schedule shall be prepared according to Section II.1.A above and as follows:

(1) The Project ID for each submission shall be unique and shall be updated to indicate the specific Update Schedule version being submitted as a Revised Baseline (RB) (e.g., C000XXXXXXX_U06RB, C000XXXXXXX_ U20RB).

(2) All activities completed prior to the Data Date shall be updated to show actual start and actual finish dates. And all on-going activities as of the Data Date shall be updated to show actual start dates and remaining duration to indicate the amount of time required to complete the remaining work. Actual dates beyond the Data Date are prohibited.

(3) Activity percent complete for on-going activities shall be based on cost of work completed as of the Data Date relative to the total cost of work planned.

(4) All schedule related changes requested or approved by the Engineer shall be incorporated into the Revised Baseline Schedule, including as applicable, added or deleted work, changes in sequence of work, changes in duration, approved SIA; and changes to the Contract Amount, Contract Milestones, Completion Date, and other time-related requirements.

(5) Activity logic shall be modified as necessary to correct out-of-sequence progress for on-going and remaining activities to reflect the Contractor's current plan for completing the remaining Work.

(6) The Revised Baseline Schedule shall be calculated using a Data Date of either the 4th, 11th, or 20th of the month, based on the Contractor's estimate date as defined in Section 109.08(a) – Partial Payments, of the Specifications, or as approved by the Engineer.

B. **Revised Baseline Schedule Narrative** – A Revised Baseline Schedule Narrative, which shall be the basis for the Revised Project Schedule. The Revised Baseline Schedule Narrative shall be prepared according to Section II.1.B above; however, it shall reflect the current status of the project as of the submittal date, approved changes in the Work, and the proposed plan for completing the remaining Work.

C. **Revised Baseline Progress Earnings Schedule** – A Revised Baseline Progress Earnings Schedule showing the actual earnings to date and anticipated earnings for the remaining Work. The Revised Baseline Progress Earnings Schedule shall be prepared and submitted according to Section II.1.C above, and as follows:

(1) The C-13C (Baseline) form shall be adjusted accordingly to show the current Contract Dates and Amount.

(2) The C-13C (Baseline) form shall be completed to show the actual monthly earnings and anticipated earnings for each Major Work Category as of the Current Estimate Date.

(3) The C-13C (Update) form shall be completed to show the current Completion Date and actual monthly earnings and anticipated earnings for each Major Work Category as of the Current Estimate Date.

(4) The Controls Chart Data form shall be completed to show the Actual Monthly Earnings for each estimate date to date, as of the Current Estimate Date.

4. **Early Completion Incentive Duration** – For Contracts that include an incentivized provision for completing a portion of the Work before a specified milestone date or all of the Work before the Completion Date, the Contractor may insert an "Early Completion Date" milestone activity to indicate its intent to complete the Work early. In which case, the Contractor may insert an "Early Completion Incentive Duration" activity between the proposed "Early Completion Date" milestone activity and the Contract completion milestone activity. The incentive duration shall be specified in calendar days, which shall not exceed the maximum allowable incentive days at any time. The incentive duration shall be adjusted accordingly each Update Schedule to reflect any slippage or contraction of the Project Schedule.

5. **Use of Total Float** – Total float shall be considered a project property that is shared amongst all activities on the network. Total float shall be calculated relative to the Completion Date or a related Contract milestone, as applicable. The Contractor may submit a Progress Schedule showing completion of a portion of the Work before a specified milestone date or all of the Work before the Completion Date. If this occurs, any total float available in the Project Schedule, at any time, shall belong to the Project. It shall be understood that total float is not for the exclusive use or benefit of either the Department or the Contractor and that either party has the right to full use of any available total float. Until such time that all available total float is depleted, total float shall be used responsibly on a first come first serve basis for the benefit of the Project. Changes to the Project Schedule at any time for the purpose of manipulating float is prohibited, with the exception of adjustments to incentive duration activities for Contracts with incentive provisions for early completion, as defined herein. Negative total float will not be allowed in the Preliminary Schedule, Baseline Schedule, or Revised Baseline Schedule.

6. **Progress Schedule Submittal Format and Reports**

Unless otherwise approved in writing by the Engineer, the Contractor shall submit for each Baseline Schedule, Update Schedule, or Revised Baseline Schedule submission, the following submittal items and reports, in the formats specified below:

A. **File Naming Convention** – Each electronic submittal file shall have a unique file name using a file naming convention that identifies the file by the Contract ID and version of Progress Schedule (e.g., BS, BSR1, U01, U04RB), type of submission (e.g., Baseline Schedule Narrative, Form C-13C), and Data Date of the submission. For example: C000XXXXXX_BS_Baseline Schedule_04-01-21.

B. **Transmittal Email** – An electronic mail to the Engineer, identifying which Progress Schedule is being submitted for review and what submittal items are included.

C. **Project Schedule** – For each submission of the Project Schedule, the Contractor shall submit:

(1) An electronic backup copy of the working schedule in the ".mpp", ".xer", or "xls" file format, as appropriate.

(2) A time-scaled bar-chart plot of the "Complete Detailed Schedule" in ".pdf" file format, showing for each activity, Activity ID (Unique ID), Activity Name, Original Duration, Start, Finish, Activity % Complete, Remaining Duration, and Total Float.

D. **Schedule Narrative** – For each submission of the Project Schedule, the Contractor shall submit a file copy of the "Project Schedule Narrative" in ".pdf" format.

E. **Progress Earnings Schedule** – For each submission of the Project Schedule, the Contractor shall submit a Progress Earnings Schedule report as follows:

(1) A copy of the "Progress Earnings Schedule (Form C-13C)" in ".xlsm" file format.

(2) Copies of the "Monthly Progress Earnings Schedule" and "S-Curve" in ".pdf" file format.

III. **Review and Acceptance**

The Engineer will review each Progress Schedule submission for acceptance and will respond within fourteen (14) days of receipt of the Contractor's complete submittal. The Engineer will determine acceptance or rejection based on conformance with this specification and other requirements of the Contract and will respond as follows:

1. **Accepted, No Exceptions** – When the submission is complete and in full compliance with this specification and other requirements of the Contract, the Engineer will respond to the Contractor with a notice indicating the submission is "Accepted, No Exceptions".

2. **Accepted As Noted** – When the submission is complete and generally in compliance with this specification and other requirements of the Contract, but contains minor flaws or exceptions, the Engineer will respond to the Contractor with a notice indicating the submission is "Accepted As Noted". In which case, the Contractor shall make the necessary corrections in the next required Progress Schedule submission to address the Engineer's comments or provide justifications in the narrative why the corrections should not be made.

3. **Rejected, As Noted** – When the submission is incomplete or not in compliance with this specification or other requirements of the Contract, the Engineer will respond to the Contractor with a notice indicating the submission is "Rejected, As Noted". The Progress Schedule submission will be immediately rejected and returned by the Engineer for the following reasons:

A. Failure to include all required reports and submittal items.

B. Failure to calculate the Project Schedule using the correct Data Date.

C. Use of prohibited constraints.

D. Activities without predecessors or successors with exception of the first and last activities.

E. The Project Schedule shows actual dates equal to or greater than the Data Date.

F. Failure to respond to the Engineer's review comments from the previous submission.

If the submission is rejected and returned by the Engineer, the Contractor shall make the necessary corrections to address the Engineer's comments and resubmit the Progress Schedule within seven (7) days of receipt of the Engineer's response.

When the Engineer determines that a meeting with the Contractor is necessary to discuss proposed changes to the schedule or to resolve issues concerning acceptance of the Progress Schedule submission, the Contractor shall meet with the Engineer as requested.

If the Contractor or Engineer discovers an error after the Engineer has accepted a Progress Schedule, the Contractor shall correct the error in the next required submission.

The Engineer's acceptance of a Progress Schedule submission does not attest to the validity of the Project Schedule, sequencing, logic, duration, or assumptions on which the schedule is based. Acceptance by the Engineer does not transfer any of the Contractor's responsibilities to the Department. Failure of the Contractor to include in the Project Schedule any element of work required by the Contract for timely completion will not excuse the Contractor from completing the Work within the Contract specified Milestone(s) or the Contract time limit, as applicable.

Upon acceptance by the Engineer, the Baseline Progress Schedule or a subsequent Revised Baseline Progress Schedule will be established as the Project "Schedule of Record (SOR)". The SOR is the latest agreed upon and only Project Baseline with which all parties will plan and execute all work required to complete the Project; and against which progress of the Project and the Contractor's performance will be assessed.

IV. **Failure to Comply with Progress Schedule Submission Requirements**

The Engineer may delay approval of the monthly progress estimate for failure to submit an acceptable Progress Schedule on time and as required. Payments withheld for violation of the schedule requirements will be included in the next progress estimate following the Contractor's submission of an acceptable Progress Schedule. Any delays resulting from payment withholding due to the Contractor's failure to provide an acceptable Progress Schedule will not be considered just cause for extension of the Contract time limit or for additional compensation.

V. **Delays and Schedule Impact Analysis (SIA)**

The Contractor shall promptly notify the Engineer when it discovers or encounters any changes to the Work or conditions that are expected to impact the Project Schedule. In the event of an excusable delay that extends the completion date of the Project or a Contract milestone, as applicable, beyond the Contract specified date, for which the Contractor is seeking an extension of time, the Contractor shall promptly submit a request for an adjustment to the Contract in accordance with Section 108.04 of the Specifications. Unless directed otherwise in writing by the Engineer, the Contractor shall submit along with its request for an adjustment to the Contract, a Schedule Impact Analysis (SIA) in accordance with the following:

1. **Prospective SIA for Anticipated Impacts Due to Directed or Authorized Changes**

The Engineer may issue a written request to the Contractor for proposed additions, deletions, or other changes to the Work in accordance with Section 104 of the Specifications. If this occurs and the Contractor is seeking an extension of time, the Contractor shall submit a Prospective SIA within seven (7) days after receipt of the Engineer's request and prior to proceeding with the changed work, unless directed otherwise in writing by the Engineer. The Prospective SIA submission shall consist of the following:

A. **Prospective SIA Schedule** – The Prospective SIA Schedule shall reflect all known information at the time of analysis and shall be prepared and submitted as follows.

(1) A Pre-impact SIA Schedule shall be prepared by updating a copy of the latest accepted Project Schedule in place prior to the proposed change with progress only through the date of the proposed change.

(2) An Impacted SIA Schedule shall be prepared by inserting a fragnet (fragmentary network) of the detail activities representing the added or changed Work into a copy of the Pre-impact SIA Schedule. The added activities shall be linked to other related and affected activities accordingly.

(3) The Prospective SIA Schedule submission shall include a bar-chart schedule layout showing the added activities, related and affected activities, critical path

activities, and any affected Contract milestones. It shall also show a graphical comparison between the Impacted SIA Schedule and Pre-impact SIA Schedule and variances in activity duration, start dates, and finish dates.

(4) The Prospective SIA Schedule submission shall include ".pdf" copies and electronic backup copies of the Pre-impact and Impacted SIA Schedules in the same file format as Update Schedule.

B. **Prospective SIA Narrative –** The Prospective SIA Narrative shall describe:

(1) The proposed changes to the Work and timeline of events associated with the changes.

(2) Any changes made to the Project Schedule and current status of the Project prior to the proposed change as reflected on the Pre-impact SIA Schedule.

(3) The changes made to the Pre-impact SIA Schedule including, added or deleted activities, affected activities and how the activities are expected to be affected.

(4) Any shifts to the Critical Path and overall impact to related Contract milestones or the Project Completion Date as reflected on the Impacted SIA Schedule.

(5) Any actions taken or proposed to mitigate or avoid the potential impact.

2. **Retrospective SIA for Impacts Due to Unforeseen Changes and Delays**

In the event of an excusable delay resulting from unforeseen changes to the Work or conditions, for which the Contractor is seeking a time extension, the Contractor shall submit along with its request for time extension, a Retrospective SIA within fourteen (14) days after the end date of the delay event, unless directed otherwise in writing by the Engineer. The Retrospective SIA submission shall consist of the following:

A. **Retrospective SIA Schedules** – The Retrospective SIA Schedules shall include all accepted monthly Update Schedules immediately before, during, and after the delay event and shall consider all known information as of the time of analysis. If there are update periods with missing Update Schedules or Update Schedules returned with a notice of "Rejected, As Noted", the Contractor shall prepare acceptable Update Schedules with progress only for the missing periods using the previous accepted Update Schedule accordingly. If there are Update Schedules returned with a notice of "Accepted As Noted", the Contractor shall modify the Update Schedules accordingly to address the Engineer's comments. The Retrospective SIA shall be prepared and submitted as follows:

(1) Each accepted monthly Update Schedule submitted during the period of occurrence of the delay event shall be compared against the accepted Update Schedule for the previous update period, to identify any variances between actual and planned performance for the work performed during each update period.

(2) Each SIA Schedule shall show the activities performed during last update period, including any activities added to the SIA Schedule to identify delay events; as well as the Project Critical Path activities. The SIA Schedule layout shall show:

(a) For each activity, Original Duration, Start, Finish, Criticality, and Total Float. It shall also show the previous Update Schedule Start, Finish; and the Start, Finish, and Duration variances relative to the previous Update Schedule.

(b) A bar-chart plot showing a graphical comparison between the SIA Schedule and previous Update Schedule.

(3) If there are Update Schedules with schedule changes that negatively impacts the schedule, the analysis shall be split to determine the impact due to the changes and impact due to progress separately by updating a copy of the previous Update Schedule with progress alone.

(4) Any related impact resulting from projected delays due to calendar restrictions such winter weather or TOYR shall be deferred until after the delays have actually occurred.

(5) The Retrospective SIA Schedule submission shall include ".pdf" copies and electronic backup copies of the SIA Schedules in the same file format as the Update Schedule.

B. **Retrospective SIA Narrative** – The Retrospective SIA Narrative shall describe:

(1) The changes to the Work or conditions or delay events, including explanation of who is responsible and why the delay is excusable.

(2) Timeline of events associated with the delay, including all actions and waiting times.

(3) For each update period, identify the SIA Schedule and previous Update Schedule and:

(a) Any changes made to the SIA Schedule, including activities added to identify delay events, deleted activities, affected activities and how the activities were affected.

(b) The controlling critical path activity and any causal link to the delay event.

(c) Any shifts to the Critical Path, Milestone, or the Project Completion Date.

(4) Any actions taken or proposed to mitigate the impact.

(5) A summary of any incremental time gains or losses in the Milestones, or the Project Completion Date for each update period.

The Engineer will review the Contractor's request and SIA and will respond within 14 days of submittal. The Contractor must adhere to the notice of a change, request for time extension, and SIA submission requirements; as well Section 105.19 of the Specifications to preserve their rights to file a claim. The Contractor's notice of a change, a subsequent meeting with the Engineer, or submittal of a request for modification of the Contract as defined herein, shall not constitute a notice of intent to file a claim as required by Section 105.19. *No part of this provision is intended to alter, replace, or supersede Section 105.19 of the Specifications*.

VI. Monitoring the Work and Assessing Progress

The Engineer will monitor and assess progress of the Work regularly relative to the SOR to identify deviations from the Contractor's scheduled performance and to determine if progress is satisfactory according to the following:

2. Progress and Coordination Meetings

Once the Work is underway and until the Project is completed, the Contractor shall keep the Engineer up-to-date on the short-term work plan on a regular basis, including any changes in the work plan or issues that may impact the schedule, as follows:

A. **Weekly Look-Ahead Schedule** – Unless directed otherwise by the Engineer, the Contractor shall furnish in Bar Chart format, a detailed Two-Week Look-Ahead (TWLA) Schedule to the Engineer every week on a day as mutually agreed upon. The TWLA Schedule shall depict in a greater level of detail, the daily operations, showing actual dates for work performed since the last TWLA Schedule submission and planned dates for work to be performed in the upcoming two (2) weeks. The daily operations included in the TWLA Schedule shall specifically reference the applicable Activity IDs in the Project Schedule. The TWLA Schedule may be prepared using a computer software or by hand.

B. **Monthly Progress Meetings** – Unless directed otherwise by the Engineer, the Contractor shall attend a monthly progress meeting with the Engineer on a day as agreed upon. At the progress meeting the Contractor shall furnish a 30-day Look-ahead Schedule Report and shall be prepared to discuss the current status of the Project, work performed during the last period, on-going work, and work planned for the following thirty (30) days; as well as any issues that are currently impacting the schedule or anticipated to impact the schedule. The 30-day Look-ahead Schedule shall be based on the Contractor's current Update Schedule, showing actual dates for work performed during the last update period and planned dates for work to be performed in the upcoming thirty (30) days.

3. **Progress Evaluation and Unsatisfactory Performance**

A. **Progress Deficiency and Schedule Slippage –** The Engineer will assess the current status of the Work each month, based on the monthly Update Progress Schedule submission, and relative to the SOR. The Contractor's actual progress may be considered unsatisfactory, as determined by the Engineer, if any of the following conditions occur:

(1) The Actual Progress Percent Complete for Work completed to date, based on the current estimate, falls behind the Baseline Cumulative Progress Percent Complete by more than ten (10) percent, relative to the SOR.

(2) A Contract milestone or the Project Completion Date is currently projected to occur more than fourteen (14) days after the date specified in the Contract, as applicable.

B. **Notice of Unsatisfactory Performance –** When the Engineer determines that actual progress of the Work is unsatisfactory, the Engineer will issue a written notice of unsatisfactory performance to the Contractor. The Engineer will also advise the Contractor that five (5) percent retainage of the monthly progress estimate is being withheld and will continue to be withheld as described in Section 109.08(c), for each month the Contractor's actual progress is remains unsatisfactory. Within fourteen (14) days from the date of receipt of the Engineer's notice, the Contractor shall respond by submitting a written statement describing any actions taken or proposed by the Contractor to correct the progress deficiency. If the Contractor's response includes a proposed recovery plan, the current Project Schedule shall be modified accordingly to reflect the Contractor's proposed recovery plan. The Contractor may submit to the Engineer a written explanation along with supporting documentation to establish that such delinquency is attributable to conditions beyond its control. If the Engineer accepts the Contractor's recovery plan, the modified Project Schedule showing the recovery plan will be considered the current Update Schedule and will not replace the SOR.

If the Contractor fails to respond within the time required, or the response is unacceptable, its prequalification status may be changed as provided in Section 102.01 of the Specifications, and the Contractor may be temporarily disqualified from bidding on contracts with the Department as provided in Section 102.08, if progress remains unsatisfactory at the time of preparation of the next monthly progress estimate. The Engineer may delay these actions when a Contract time extension is under consideration.

VII. **Measurement and Payment**

There will be no separate payments for Progress Schedule, TWLA Schedule, or SIA submissions, or for attending scheduling meetings. All costs associated with the preparation and submission of the Baseline Progress Schedule, Update Progress Schedule, Revised Baseline Progress Schedule, TWLA Schedule, and SIA; or attendance of schedule meetings shall be considered incidental.

SP109-000100-05

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
ASPHALT MATERIAL PRICE ADJUSTMENT

July 8, 2024

All asphalt material contained in the master listing on the Construction Division website of eligible bid items and designated as pay items in the Contract or added as pay items by Change Order will be price adjusted according to the provisions as set forth herein. Other items will not be price adjusted, except as otherwise specified in the Contract.

Each month, the Department will publish an average statewide price per ton for PG 64S-22 f.o.b., and an average statewide price per ton for PG 64E-22 f.o.b., developed from the average terminal prices provided to the Department from suppliers of asphalt cement to contractors doing work in Virginia. The Department will collect terminal prices from approximately 12 terminals each month. These prices will be received once each month from suppliers on or about the last weekday of the month. The high and low prices will be eliminated, and the remaining values averaged to establish the average statewide prices for the following month.

The monthly average statewide prices will be posted on the Construction Division website on or about the first weekday of the month. The posted monthly average statewide prices will be the (a) Base Index for all contracts on which bids are received during the calendar month of the Department's posting on the Construction Division website, and (b) Current Index for all eligible asphalt materials placed during the calendar month of the Department's posting under an executed contract.

The amount of adjustment applied will be based on the difference between the Contract's Base Index and the Current Index for the calendar month during which the work is performed. The quantity of asphalt cement for asphalt concrete pavement to which adjustment will be applied will be the quantity based on the percent of asphalt cement shown on the appropriate approved job mix formula.

The Base Index for application of Asphalt Adjustments will be determined in accordance with the following:

(a) When the actual quantities of asphalt material pay item(s) change, alter, or vary from the estimated quantities with no adjustment to the Contract bid price of those pay items, then the Base Index shall be the monthly average statewide prices posted at the time of the letting.
(b) When the Department issues a Change Order that changes or alters the quantity of asphalt material pay item(s) with a commensurate adjustment to the Contract price(s) for the pay item(s), then the Base Index for the altered quantity and altered price(s) shall be the monthly average statewide price(s) posted for the calendar month in which the altered quantity and altered price are established in the Contract (the Change Order approval date).
(c) When the Department issues a Change Order to add new asphalt material pay item(s) eligible for price adjustment to a Contract, the Base Index for the added pay item(s) shall be the monthly average statewide price(s) posted for the calendar month the pay item(s) is (are) established in the Contract (the Change Order approval date).

In the event the monthly average statewide prices were to change by 10 percent or more of the Base Index during the middle of the month, the Contractor can submit a letter to the Department and supplier that provides evidence of the difference in price. Upon receipt of the letter, consideration will be given to extend additional adjustments as deemed necessary. In the event either Index changes radically from the apparent trend, as determined by the Engineer, the Department may establish an Index which it determines to best reflect the trend.

Adjustment of any asphalt material other than PG 64S-22 and PG 64E-22 will be based on the Indexes for PG 64S-22.

The quantity of asphalt emulsions to which adjustment will be applied will be the quantity based on 65 percent residual asphalt.

Price adjustment will be shown as a separate entry on the monthly progress estimate; however, such adjustment will not be included in the total cost of the work for progress determination or for extension of Contract time. Price adjustment will be calculated using the same units as the corresponding pay items in the Contract.

Any apparent attempt to unbalance bids in favor of items subject to price adjustment or failure to submit required cost and price data as noted hereinbefore may result in rejection of the bid proposal.

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
SECTION 105.06—SUBCONTRACTING
(FEDERAL FUNDED PROJECTS)

February 9, 2017

SECTION 105.06—Subcontracting of the Specifications is amended to include the following:

(d) According to Commonwealth of Virginia Executive Order 20, the Contractor is encouraged to seek out and consider Small, Women-owned, and Minority-owned (SWaM) businesses certified by the Department of Small Business and Supplier Diversity (DSBSD) as potential subcontractors and vendors. Further, the Contractor shall furnish and require each subcontractor (first-tier) to furnish information relative to subcontractor and vendor involvement on the project.

For purposes of this provision, the term "vendor" is defined as any consultant, manufacturer, supplier or hauler performing work or furnishing material, supplies or services for the contract. The Contractor and, or subcontractor (first-tier) must insert this provision 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 this provision are incorporated by reference for work done by vendors under any purchase order, rental agreement or agreement for other services for the contract. The Contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or vendor.

The submission of a bid will be considered conclusive evidence that the Contractor agrees to assume these contractual obligations and to bind subcontractors contractually to the same at the Contractor's expense.

When an approved Form C-31 "Subletting Request" is required according to IIM-CD-2013-06.01, the Contractor shall indicate on the Subletting Request if a subcontractor is a certified DBE or SWaM business.

The Contractor shall report all DBE, SWaM, and Non SWaM vendor payments quarterly to the District Civil Rights Office. The Contractor shall provide the information in a format consistent with Form C-63, Vendor Payment Compliance Report, subject to the approval of the Engineer.

DBE Participation and reporting shall be in accordance with the Special Provision for Section 107.15 (Use of Disadvantaged Business Enterprises).

If the Contractor fails to provide the required information, the Department may delay final payment according to Specification Section 109.10 of the Specifications.

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
PREVAILING WAGE RATES

October 12, 2023

SECTION 107 – LEGAL RESPONSIBILITIES of the Specifications is amended as follows:

Section 107.13 – Labor and Wages is amended as follows:

Section 107.13(a) Predetermined Minimum Wages is replaced with the following:

(a) **Prevailing Wage Rates:** The provisions of federal and state laws requiring the payment of a prevailing minimum wage rate are incorporated in and expressly made a part of this Contract. The Contractor and the Contractor's subcontractors shall promptly and fully comply with all such applicable provisions, including, but not limited to, the following.

1.0 Federal Requirements

The Contractor and subcontractors must comply with such of the regulations in 29 C.F.R. Parts 1, 3, and 5 as may be applicable to the Contract. These requirements are considered to be effective by operation of law, whether or not they are incorporated into the Contract, as set forth 29 C.F.R. § 5.5(e).

1.1 Wage Determinations

The U.S. Department of Labor (USDOL) publishes general wage determinations applicable to specified areas on the USDOL-approved website. Wage determinations contain, among other information, a list of wage and fringe benefit rates determined to be prevailing for various classifications of laborers or mechanics for specified type(s) of construction in a given area.

The applicable wage determinations are included in the Contract. These wage determinations apply for the duration of the Contract, except as specified below.

If for any reason it is determined post-award that a wage determination and/or the correct wage determination was omitted from Contract, the omitted wage determination will be incorporated into the Contract and effective by operation of law, retroactive to the award date of the Contract.

USDOL may periodically issue revisions of the wage determinations to reflect current prevailing wage rates. Revisions to wage determinations are effective with respect to the solicitation and Contract if issued at least 10 calendar days before bid opening. If issued less than 10 calendar days before bid opening, revisions are effective to the solicitation and Contract unless the Department finds that there is not a reasonable time still available before bid opening to notify bidders of the revision.

If the Contract is not awarded within 90 days after bid opening, any revised wage determination issued prior to award is effective to the Contract unless the Department obtains an extension of the original wage determination from the Administrator of the USDOL Wage and Hour Division.

1.2 Change Orders

The wage determinations incorporated into the Contract at Contract execution apply for the duration of the Contract, subject to the following exceptions. When the Contract is changed to include additional, substantial construction, alteration, and/or repair work not within the scope of work of the original Contract, or to require the Contractor to perform

work for an additional time period not originally obligated, including where an option to extend the term of a contract is exercised, the most recent revision of any applicable wage determination(s) published at the time the change order is issued or the option is exercised are incorporated in and applicable to the change order work. The Contractor and their subcontractors must comply with the revised wage determinations when pricing and performing the change order work.

The requirement to incorporate revised wage determinations does not apply where (i) the Contract is not changed as described in the preceding paragraph, (ii) the Contractor is simply given additional time to complete the original Contract work, or (iii) where the additional construction, alteration, and/or repair work in the change order is already within the scope of the Contract.

1.3 Certified Payrolls

Each Contractor or subcontractor engaged in the construction, prosecution, completion, or repair work on the Project each week must submit certified payrolls in accordance with the records and certified payrolls requirements of Form FHWA 1273, under section IV(3) - Records and certified payrolls (29 CFR 5.5), included in the Contract.

Each certified payroll required under this section must be delivered by the Contractor or subcontractor, within 7 days after the regular payment date of the payroll period in accordance with the Special Provision for Electronic Submission of Payrolls and DBE Subcontractor Payment for Federally Funded Projects (**SP107-000120-00).**

Each Contractor or subcontractor must preserve all regular payroll records for all laborers and mechanics working at the site of the work for a period of 6 years after all the work on the Contract is completed in accordance with Form FHWA 1273, section IV(3) - Records and certified payrolls (29 CFR 5.5), included in the Contract, and section 2.4, below.

1.4 Conformance

A. Any class of laborers or mechanics, including helpers, which is not listed in the applicable wage determination, and which is to be employed under the Contract, must be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

   (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

   (2) The classification is used in the area by the construction industry; and

   (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

B. The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

C. If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Engineer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the Engineer by email to *DBAconformance@dol.gov*. The Administrator of the USDOL Wage and Hour Division, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Engineer or will notify the Engineer within the 30–day period that additional time is necessary.

D. In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and the Engineer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Engineer will, by email to *DBAconformance@dol.gov*, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator of the USDOL Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Engineer or will notify the Engineer within the 30–day period that additional time is necessary.

E. The Engineer must promptly notify the Contractor of the action taken by the USDOL Wage and Hour Division under paragraphs (C) and (D) of this section. The Contractor must furnish a written copy of the Administrator's determination to each affected worker, or must be post it as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph (C) or (D) of this section must be paid to all workers performing work in the classification under this Contract from the first day on which work is performed in the classification.

2.0 Virginia Requirements

2.1 If the Contractor needs a job classification not listed in the wage determination to submit a bid or comply with this provision, the Contractor shall submit to the Department a completed Additional Classification and Wage Rate Request using Form C-51. If other or additional classifications are used, omission of classifications shall not be cause for additional compensation to the Contractor. The Contractor shall be responsible for determining local practices with regard to the application of the various labor classifications.

2.2 Upon the award of the Contract, the Contractor shall certify, under oath, to the Commissioner of the Virginia Department of Labor and Industry (VDOLI) the pay scale for each craft or trade employed on the project to be used by the Contractor and any of the Contractor's subcontractors for work to be performed under the Contract. This certification shall, for each craft or trade employed on the project, specify the total hourly amount to be paid to employees, including wages and applicable fringe benefits, provide an itemization of the amount paid in wages and each applicable benefit, and list the names and addresses of any third party fund, plan or program to which benefit payments will be made on behalf of employees. The certification form available at: www.doli.virginia.gov/wp-content/uploads/2021/04/DOLI-Pay-Scale-Certification-for-Public-Works-Projects.pdf. The form may be emailed to prevailingwage@doli.virginia.gov, faxed to 804-371-6524, or mailed to Virginia Department of Labor and Industry, 600 East Main St., Suite 207, Richmond, VA, 23219, Attn: Prevailing Wage.

2.3 The Contractor and the Contractor's subcontractors performing work on this Contract shall post the general prevailing wage rate for each craft and classification involved in prominent and easily accessible places accessible to all employees at the site of the work or at any such places as are used by the Contractor or subcontractors to pay workers their wages. Within 10 days of such posting, the Contractor or subcontractors shall certify to the Commissioner of VDOLI their compliance with this requirement. The certification form available at: www.doli.virginia.gov/wp-content/uploads/2021/04/PW_Posting_Compliance_Form.pdf. The form may be emailed to prevailingwage@doli.virginia.gov, faxed to 804-371-6524, or mailed to Virginia Department of Labor and Industry, 600 East Main St., Suite 207, Richmond, VA, 23219, Attn: Prevailing Wage.

2.4 The Contractor and the Contractor's subcontractors shall keep, maintain and preserve (i) records relating to the wages paid to and hours worked by each individual performing the work of any mechanic, laborer, or worker and (ii) a schedule of the occupation or work classification at which each individual performing the work of any mechanic, laborer, or worker on the public works project is employed during each work day and week. The employer shall preserve these records for a minimum of six years and make such records available to the Virginia Department of Labor and Industry within 10 days of a request and shall certify that records reflect the actual hours worked and the amount paid to its workers for whatever time period they request.

2.5 The Contractor shall insert this Special Provision into any subcontracts let to subcontractors for performance of services in connection with the Contract.

SS109-002020-01 May 1, 2023

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 109—MEASUREMENT AND PAYMENT

SECTION 109—MEASUREMENT AND PAYMENT of the Specifications is amended as follows:

SECTION 109.08—Partial Payments is replaced in its entirety with the following:

(a) **General**

Partial payments will be based on a monthly progress estimate consisting of approximate quantities and value of work performed as determined by the Engineer. When the method of measurement for a Contract item is in units of each or lump sum, the value of work accomplished for partial payment will be determined on a pro rata basis. Partial payments will be made once each month for the work performed in accordance with the Contract requirements. The Contractor will be given the opportunity to review the monthly progress estimate prior to each partial payment. Upon final acceptance, one last monthly estimate will be prepared and any additional payment due will be vouchered for payment.

The monthly progress estimates will be prepared in accordance with the following schedule:

1. **Contractor companies whose name begins with the letter A through F:** The monthly progress estimate will be prepared on the 4th day of each month, beginning on the first 4th day following the date of the Contract execution, and on the same day of the succeeding months as the work progresses.

2. **Contractor companies whose name begins with the letter G through P:** The monthly progress estimate will be prepared on the 11th day of each month, beginning on the first 11th day following the date of the Contract execution, and on the same day of the succeeding months as the work progresses.

3. **Contractor companies whose name begins with the letter Q through Z:** The monthly progress estimate will be prepared on the 20th day of each month, beginning on the first 20th day following the date of the Contract execution, and on the same day of the succeeding months as the work progresses.

For contracts without a payment bond, the Contractor shall submit to the Engineer a letter from each materials supplier and subcontractor involved stating that the Contractor has paid or made satisfactory arrangements for settling all bills for materials and subcontracted work that was paid on the previous month's progress estimate. The Department will use the source of supply letter and approved subletting request to verify that certifications have been received for work that was paid on the previous monthly estimate. The Contractor shall furnish these and other certificates as are required as a prerequisite to the issuance of payment for the current monthly estimate.

The Department may withhold the payment of any partial or final estimate voucher or any sum(s) thereof from such vouchers if the Contractor fails to make payment promptly to all persons supplying equipment, tools, or materials; or for any labor he uses in the prosecution of the Contract work.

Unless otherwise provided under the terms of the Contract, interest shall accrue at the rate of one percent per month.

Contractors doing business as an individual must provide their social security numbers; proprietorships, partnerships, and corporations must provide their federal employer identification numbers.

(b) **Payment to Subcontractors**

Payment to subcontractors shall be in accordance with the provisions of Code of Virginia § 2.2- 4354 and § 2.2-4355 as follows.

1. Department has paid Contractor for Subcontractor's Work.

   Upon the Department's payment to the Contractor for the subcontractor's portion of the work as shown on the monthly progress estimate and the receipt of payment by the Contractor for such work, the Contractor shall make compensation in full to the subcontractor. For the purposes of this Section, payment of the subcontractor's portion of the Work shall mean that payment has been issued for that portion of the Work that was identified on the monthly progress estimate for which the subcontractor has performed service.

   The Contractor shall take one of the following two actions within 7 days after receipt of payment from the Department for the subcontractor's portion of the Work as shown on the monthly progress estimate:

   a. Pay the subcontractor for the proportionate share of the total payment received from the agency attributable to the Work performed by the subcontractor; or

   b. Notify the Department and subcontractor, in writing, of his intention to withhold all or a part of the subcontractor's payment along with the reason for nonpayment.

   In the event payment is not made as required, the Contractor shall pay interest at the rate of one percent per month, unless otherwise provided in the Contract, to the subcontractor on all amounts that remain unpaid after 7 days, except for the amounts withheld as provided in this Section.

2. Department has not paid Contractor for Subcontractor's Work.

   In the event that the Contractor has not received payment from the Department for work performed by a subcontractor under the Contract, the Contractor is liable for the entire amount owed to such subcontractor and shall pay such subcontractor within 60 days of the receipt of an invoice following satisfactory completion of the work for which the subcontractor has invoiced. The Contractor shall not be liable for amounts otherwise reducible due to the subcontractor's noncompliance with the terms of the Contract. However, in the event that the Contractor withholds all or part of the amount invoiced by the subcontractor under the terms of the Contract, the Contractor shall notify the subcontractor within 50 days of the receipt of such invoice, in writing, of his intention to withhold all or part of subcontractor's payment with the reason for nonpayment, specifically identifying the contractual noncompliance, the dollar amount being withheld, and the lower-tier subcontractor responsible for the contractual noncompliance. Payment by the party contracting with the Contractor shall not be a condition precedent to payment to any lower-tier subcontractor, regardless of the Contractor receiving payment for amounts owed to them. Any contrary provisions shall be unenforceable.

3. Nothing in this Section shall be construed to (i) apply to or prohibit the inclusion of any retainage provisions in a construction contract or (ii) apply to contracts awarded solely for professional services as that term is defined in Code of Virginia § 2.2-4301 where the Department is contracting directly with an architectural and engineering firm.

4. The Contractor shall include in each of its subcontracts provision**s** requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower tier subcontractor.

5. If the Contractor fails to make payment to the subcontractor within the time frame**s** specified herein, the subcontractor shall notify the Engineer and the Contractor's bonding company in writing. The Contractor's bonding company shall be responsible for insuring payment in accordance with this Section and Section 107.01.

(c) Retainage

If the Engineer determines the Contractor's progress is unsatisfactory according to Section 108.03 or other applicable Contract documents, the Engineer will send a notice of unsatisfactory progress to the Contractor advising him of such determination. This notification will also advise the Contractor that five percent retainage of the monthly progress estimate is being withheld and will continue to be withheld for each month the Contractor's actual progress is determined to be unsatisfactory.

When the Engineer determines that the Contractor's progress is satisfactory in accordance with these requirements, the 5 percent retainage previously withheld because of unsatisfactory progress will be released in the next monthly progress estimate, and the remaining monthly progress estimates will be paid in full provided the Contractor's progress continues to be satisfactory.

SS211-002020-03 March 18, 2024

VIRGINIA DEPARTEMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 211 – ASPHALT CONCRETE

SECTION 211 – ASPHALT CONCRETE of the Specifications is amended as follows:

Section 211.01 – Description is replaced with the following:

Asphalt concrete shall consist of a combination of mineral aggregate and asphalt binder mixed mechanically in a plant specifically designed for such purpose.

An equivalent single-axle load (ESAL) will be established by the Engineer, and SUPERPAVE mix types may be specified as one of the types listed as follows:

Mix Type[1]	Equivalent Single-Axle Load (ESAL) Range (millions)	Minimum Asphalt Performance Grade (PG)[2]	NominalMaximum Aggregate Size[3]
SM-4.75A	0 to 3	64S-16	No. 4
SM-4.75D	3 to 10	64H-16	No. 4
SM-4.75E	3 to 10	64E-22	No. 4
SM-9.0A	0 to 3	64S-16	3/8 in
SM-9.0D	3 to 10	64H-16	3/8 in
SM-9.0E	Above 10	64E-22	3/8 in
SM-9.5A	0 to 3	64S-16	3/8 in
SM-9.5D	3 to 10	64H-16	3/8 in
SM-9.5E	Above 10	64E-22	3/8 in
SM-12.5A	0 to 3	64S-16	1/2 in
SM-12.5D	3 to 10	64H-16	1/2 in
SM-12.5E	Above 10	64E-22	1/2 in
IM-19.0A	Less than 10	64S-16	3/4 in
IM-19.0D	10 to 20	64H-16	3/4 in
IM-19.0E	20 and above	64E-22	3/4 in
BM-25.0	All ranges	64H-16	1 in

[1]SM = Surface Mixture; IM = Intermediate Mixture; BM = Base Mixture
[2]**Minimum Asphalt Performance Grade (PG)** is defined as the minimum binder performance grade for the job mix formulas as determined by AASHTO T170 or AASHTO M332.
[3]**Nominal Maximum Aggregate Size** is defined as one sieve size larger than the first sieve to retain more than 10 percent aggregate.

Asphalt concrete shall conform to the requirements for the mix type designated on the plans or elsewhere in the Contract for use.

At the Contractor's option, an approved Warm Mix Asphalt (WMA) additive or process may be used to produce the asphalt concrete mix type designated.

Table II-12A – Standard Deviation is renamed **Aggregate Properties** and is replaced with the following:

TABLE II-12A
Aggregate Properties

	Coarse Aggregate Properties			Fine Aggregate Properties	
	CAA		ASTM D4791		
Mix Type	1 fractured face	2 fractured faces	F & E (5:1) % by weight	SE	FAA
SM-4.75A				40% min	40% min
SM-4.75D				45% min	45% min
SM-4.75E				45% min	45% min
SM-9.0 A	85% min.	80% min.	10% max.[1]	40% min.	40% min.
SM-9.0 D	85% min.	80% min.	10% max.[1]	45% min.	45% min.
SM-9.0 E	95% min.	90% min.	10% max.[1]	45% min.	45% min.
SM-9.5 A	85% min.	80% min.	10% max.[1]	45% min.	45% min.
SM-9.5 D	85% min.	80% min.	10% max.[1]	45% min.	45% min.
SM-9.5 E	95% min.	90% min.	10% max.[1]	45% min.	45% min.
SM-12.5 A	85% min.	80% min.	10% max.[1]	45% min.	45% min.
SM-12.5 D	85% min.	80% min.	10% max.[1]	45% min.	45% min.
SM-12.5 E	95% min.	90% min.	10% max.[1]	45% min.	45% min.
IM-19.0 A	85% min.	80% min.	10% max.[1]	45% min.	45% min.
IM-19.0 D	95% min.	90% min.	10% max.[1]	45% min.	45% min.
IM-19.0 E	95% min.	90% min.	10% max.[1]	45% min.	45% min.
BM-25.0	80% min.	75% min.	10% max.[1]	45% min.	45% min.

[1]10 percent measured at 5:1 on maximum to minimum dimensions

Table II-13 – Asphalt Concrete Mixtures: Design Range is replaced with the following:

TABLE II-13
Asphalt Concrete Mixtures: Design Range

	Percentage by Weight Passing Square Mesh Sieves										
Mix Type	1 1/2 in	1 in	¾ in	½ in	3/8 in	No. 4	No. 8	No. 16	No. 30	No. 50	No. 200
SM-4.75 A,D,E				100[1]	95-100	90-100		30-55			6-13
SM-9.0 A,D,E				100[1]	90-100	90 max.	47-67				2-10
SM-9.5 A,D,E				100[1]	90-100	58-80	38-67		23 max		2-10
SM-12.5 A,D,E			100	95-100	90 max.	58-80	34-50		23 max		2-10
IM-19.0 A,D,E		100	90-100	90 max.	--	--	28-49				2-8
BM-25.0	100	90-100	90 max.	--	--	--	19-38				1-7
C (Curb Mix)				100	92-100	70-75	50-60		28-36	15-20	7-9

[1]A production tolerance of 1% will be applied to this sieve regardless of the number of tests in the lot.

Table II-14 – Mix Design Criteria is replaced with the following:

TABLE II-14
Mix Design Criteria

Mix Type	VTM (%) Production	VFA (%) Design	VFA (%) Production	Min. VMA (%)	Fines/Asphalt Ratio	No. of Gyrations N Design
SM4.75A [2, 4]	3.0-6.0	70-75	70-80	16.5	1.0-2.0	50
SM4.75D [2, 4]	3.0-6.0	70-75	70-80	16.5	1.0-2.0	50
SM4.75E [2, 4]	3.0-6.0	70-75	70-80	16.5	1.0-2.0	50
SM-9.0A [1,2]	2.0-5.0	75-80	70-85	17.0	0.6-1.3	50
SM-9.0D [1,2]	2.0-5.0	75-80	70-85	17.0	0.6-1.3	50
SM-9.0E [1,2]	2.0-5.0	75-80	70-85	17.0	0.6-1.3	50
SM-9.5A [1,2]	2.0-5.0	75-80	70-85	16.0	0.7-1.3	50
SM-9.5D [1,2]	2.0-5.0	75-80	70-85	16.0	0.7-1.3	50
SM-9.5E [1,2]	2.0-5.0	75-80	70-85	16.0	0.7-1.3	50
SM-12.5A [1,2]	2.0-5.0	73-79	68-84	15.0	0.7-1.3	50
SM-12.5D [1,2]	2.0-5.0	73-79	68-84	15.0	0.7-1.3	50
SM-12.5E [1,2]	2.0-5.0	73-79	68-84	15.0	0.7-1.3	50
IM-19.0A [1,2]	2.0-5.0	69-76	64-83	14.0	0.6-1.3	50
IM-19.0D [1,2]	2.0-5.0	69-76	64-83	14.0	0.6-1.3	50
IM-19.0E [1,2]	2.0-5.0	69-76	64-83	14.0	0.6-1.3	50
BM-25.0 [2,3]	0.5-3.5	67-87	67-92	12.0	0.6-1.3	50

[1]Binder content should be selected at 4.0% air voids for A and D mixes, 3.5% air voids for E mix.
[2]Fines-asphalt ratio is based on effective bindercontent.
[3]Base mix shall be designed at 2.0% air voids. BM-25.0shall have a minimum binder content of 4.6% unless otherwise approved by the Engineer.
[4] Binder content shall be selected at 5.0 percent air voids.

Table II-14A- Recommended Performance Grade of Asphalt Cement is replaced with the following:

TABLE II-14A
Recommended Performance Grade of Asphalt Cement

Mix Type	Percentage of Reclaimed Asphalt Pavement (RAP) in Mix		
	%RAP ≤ 25.0%	25.0% < %RAP ≤ 30%	25.0% < %RAP ≤ 35%
SM-4.75A, SM-9.0A, SM-9.5A, SM-12.5A	PG 64S-22	PG 64S-22	
SM-4.75D, SM-9.0D, SM-9.5D, SM-12.5D	PG 64H-22	PG 64S-22	
IM-19.0A	PG 64S-22	PG 64S-22	
IM-19.0D	PG 64H-22	PG 64S-22	
BM-25.0	PG 64H-22		PG 64S-22

211.02—Materials (h)- is replaced with the following

(h) An antistripping additive shall be used in all asphalt mixes. IAdditives may be hydrated lime or a chemical additive from the Materials Division Approved List No. 7 or a combination of both. When using an approved chemical additive, it shall be added at a rate of not less than 0.30 percent by weight of the total asphalt content of the mixture unless otherwise indicated on the Department's Approved List No. 7.

211.02—Materials (m)- is replaced with the following

(m) **Warm Mix Asphalt (WMA)** additives or processes shall be approved by the Department prior to use and shall be obtained from the Department's ApprovedList No. 66. When using an approved chemical additive, it shall be added at a rate of not less than 0.50 percent by weight of the total asphalt content of the mixture unless otherwise indicated on the Department's ApprovedList No.66.

Section 211.03(d)8 – For surface mixes is replaced with the following:

For surface mixes, permeability test data shall be submitted in accordance with VTM-120 using either single point verification or the regression method for each surface mix having a different gradation. The specimen height shall be one inch for SM-4.75 mix types. If the average of the permeability results from the single point verification method exceeds 150 x 10^{-5} cm/sec, or if the regression method predicts a permeability exceeding 150 x 10^{-5} cm/sec at 7.5% voids, the Contractor shall redesign the mixture to produce a permeability number less than 150 x 10^{-5} cm/sec.

Section 211.04(a) – Types SM-9.0A, SM-9.0D, SM-9.0E, SM-9.5A, SM-9.5D, SM-9.5E, SM-12.5A, SM-12.5D, and SM-12.5E asphalt concrete is renamed **Types SM-4.75A, SM-4.75D, SM-4.75E, SM-9.0A, SM-9.0D, SM-9.0E, SM-9.5A, SM-9.5D, SM-9.5E, SM-12.5A, SM-12.5D, and SM-12.5E asphalt concrete** and replaced with the following:

Types SM-4.75A, SM-4.75D, SM-4.75E, SM-9.0A, SM-9.0D, SM-9.0E, SM-9.5A, SM-9.5D, SM-9.5E, SM-12.5A, SM-12.5D, and SM-12.5E asphalt concrete shall consist of crushed stone, crushed slag, or crushed gravel and fine aggregate; slag or stone screenings; or a combination thereof combined with asphalt binder.

For all surface mixes, except where otherwise noted, no more than 5% of the aggregate retained on the No. 4 sieve and no more than 20% of the total aggregate may be polish-susceptible. At the discretion of the Engineer, SM-9.5AL or SM-12.5AL may be specified and polish susceptible aggregates may be used (without percentage limits).

Unless Type C (curb mix) is specified in the Contract, SM-9.0, SM-9.5, and SM-12.5 mix types are acceptable for use in the construction of asphalt curbing.

Section 211.04(e) – Type SM-9.5, SM-12.5, IM-19.0 and BM-25.0 asphalt concrete is renamed **Type SM-4.75, SM-9.5, SM-12.5, IM-19.0 and BM-25.0 asphalt concrete** and amended to replace the first paragraph with the following:

Type SM-4.75, SM-9.0, SM-9.5, SM-12.5, IM-19.0 and BM-25.0 asphalt concrete may be designated E (polymer modified), or stabilized (S). Asphalt concrete mixtures with the E designation may not be stabilized.

Table II-15 – Process Tolerance is replaced with the following:

TABLE II-15
Process Tolerance

Tolerance on Each Laboratory Sieve and Binder Content: Percent Plus and Minus													
No. Tests	**Top Size[1]**	**1 ½"**	**1"**	**¾"**	**½"**	**3/8"**	**No. 4**	**No. 8**	**No. 16**	**No. 30**	**No. 50**	**No. 200**	**A.C.**
1	0.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	6.0	5.0	2.0	.60
2	0.0	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	4.3	3.6	1.4	0.43
3	0.0	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	3.3	2.8	1.1	0.33
4	0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	2.5	1.0	0.30
5	0.0	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	2.7	2.2	0.9	0.27
6	0.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.4	2.0	0.8	0.24
7	0.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.3	1.9	0.8	0.23
8	0.0	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.1	1.8	0.7	0.21
12	0.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.7	1.4	0.6	0.17

[1]Defined as the sieve that has 100% passing as defined in Table II-13.

Section 211.08 – Acceptance is amended by replacing the sixth paragraph with the following:

Binder content will be measured as extractable binder or weight after ignition. The Contractor shall submit a copy of burn tickets from an ignition oven to the Engineer and all the original tickets shall be available upon Engineer's request. The Engineer shall be notified within 24 hours from testing of a report edit if the date and time on a ticket do not match information submitted in PLAID.Original tickets shall be maintained on file by the Contractor for a period of 5 years or until final acceptance of the applicable contract, whichever is greater.

Section 211.09 – Adjustment System is amended by replacing the first paragraph and following table with the following:

If a lot of material does not conform to the acceptance requirements of Section 211.08, the Department will determine adjustment points as follows:

Adjustment Points for Each 1% the Gradation Is Outside the Process Tolerance Permitted In Table II-15

Sieve Size	(Applied in 0.1% increments)
1 1/2 in	1
1 in	1
3/4 in	1
1/2 in	1
3/8 in	1
No. 4	1
No. 8	1
No. 16	1
No. 30	2
No. 50	2
No. 200	3

SS220-002020-01 August 28, 2020

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 220 – CONCRETE CURING MATERIALS

SECTION 220 – CONCRETE CURING MATERIALS of the Specifications is amended as follows:

Section 220.02(a) – Waterproof paper is replaced with the following:

Waterproof paper shall conform to ASTM C171. One side shall be composed of white, light-reflecting paper.

Section 220.02(b) – PE film is replaced with the following:

PE film shall conform to ASTM C171 except that its nominal thickness shall be 3.0 mils. The thickness at any point shall be at least 2.5 mils.

Section 220.02(c) – Burlap and PE film is replaced with the following:

Burlap and PE film may be used in combination. They shall be bonded securely so that they cannot be easily separated in a dry or saturated condition. White PE film shall conform to the reflectance requirements of ASTM C171. Burlap shall conform to Section 220.02(f). The combination product shall have a total weight of 11 ounces per square yard with 11 threads of burlap per inch.

Section 220.02(f) – Burlap is inserted as follows:

Burlap used by itself shall conform to AASHTO M 182, Class 3, except the weight of each sample may vary by 10%. Acceptance shall be based on the average weight of all samples submitted according to AASHTO M 182, Table 3. If any individual sample is outside the 10% tolerance, the lot will be rejected.

SS223-002020-02 April 4, 2023

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 223 – STEEL REINFORCEMENT

SECTION 223 – STEEL REINFORCEMENT of the Specifications is amended as follows:

SECTION 223.02(a) – Reinforcement is replaced as follows:

1. **Deformed bars** shall conform to ASTM A615, Grade 40 or 60; or ASTM A706, Grade 60. Longitudinal bars for continuous reinforced hydraulic cement concrete pavement shall be Grade 60.

2. **Plain bars** shall conform to ASTM A615, Grade 40 or 60; or ASTM A706, Grade 60, deformation waived. When used as a dowel, material may be a plain bar conforming to the requirements of ASTM A615, Grade 40 or 60, or a plain dowel conforming to the requirements of ASTM A709, Grade 36; or ASTM A706, Grade 60.

3. **Welded wire fabric** shall conform to ASTM A1064. When used in continuously reinforced hydraulic cement concrete pavement wire fabric shall be deformed, furnished in flat sheets, and shall conform to ASTM A1064, Grade 70.

4. **Structural steel** shall conform to Section 226.

5. **Bar mats** shall conform to ASTM A184.

6. **Spiral wire** shall conform to AASHTO M32 or ASTM A1064.

7. Wire mesh for use in gabions shall be made of galvanized steel wire at least 0.105 inch, 12 gage, in diameter. The tensile strength of the wire shall be at least 60,000 pounds per square inch. Wire mesh shall be galvanized in accordance with ASTM A641, Class 3. When PVC coating is specified, it shall be at least 0.015 inch in thickness and shall be black.

   Wire shall be welded to form rectangular openings or twisted to form hexagonal openings of uniform size. The linear dimension of the openings shall be not more than 4 1/2 inches. The area of the opening shall be not more than 9 square inches. The unit shall be nonraveling. Nonraveling is defined as the ability to resist pulling apart at any of the twists or connections forming the mesh when a single wire strand in a section is cut.

SS234-002020-01 May 6, 2022

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 234 – GLASS BEADS AND RETROREFLECTIVE OPTICS

SECTION 234 – GLASS BEADS FOR REFLECTORIZING TRAFFIC MARKINGS of the Specifications is replaced as follows:

SECTION 234 – GLASS BEADS AND RETROREFLECTIVE OPTICS

234.01 – Description

This specification covers glass beads and retroreflective optics applied on the surface or incorporated into traffic-marking materials so as to produce a retroreflective surface.

234.02 – Detail Requirements

Glass beads and retroreflective optics shall be supplied from a supplier listed on Materials Approval List No. 76.

The Contractor shall provide a written certification that each batch of glass beads or retroreflective optics used in or on VDOT pavement markings meets VDOT specifications and does not exceed the AASHTO M 247 maximum concentration limits for Lead and Arsenic.

(a) **Glass beads** shall have a composition designed to be highly resistant to traffic wear and weather. Materials other than glass will be allowed if the pavement marking product was tested on the NTPEP test deck with the alternative bead material.

Glass beads shall have a Refractive Index of 1.50-1.79 when tested as per AASHTO T 346.

Glass beads shall conform to AASHTO M 247, except that at least 80 percent of the beads shall be round when tested in accordance with ASTM D 1155, Procedure B.

(b) **Retroreflective Optics** shall have a concentration designed to be highly resistant to traffic wear and weather. Retroreflective Optics shall be composed of glass beads, ceramic materials, or a combination of glass beads or ceramic materials affixed to a glass bead core.

Retroreflective Optics shall have a Refractive Index of 1.8 or higher when tested as per AASHTO T 346.

SS235-002020-01 May 6, 2022

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 235 – RETROREFLECTORS

SECTION 235 – RETROREFLECTORS of the Specifications is deleted and replaced as follows:

235.01 – Description

Retroreflectors are retroreflective surfaces that redirect the vehicle headlights back to the driver to delineate the road. The retroreflective surface may consist of a plastic prismatic reflector or retroreflective sheeting. Retroreflectors are used with:

- Pavement Markers (Permanent and Temporary)
- Delineators (Guardrail, Barrier, Flexible Post, Road Edge)

Pavement markers and Delineators shall be approved by reviewing performance data from one or both of the following test programs:

(a) AASHTO's National Transportation Product Evaluation Program (AASHTO/NTPEP). Test data values used for approval may be based upon the data generated per the applicable NTPEP Work Plan.

(b) VDOT Test Facility – VDOT may elect to evaluate performance from their own test facility.

235.02 – Detail Requirements

(a) **Inlaid Pavement Markers –** Holders for inlaid pavement markers shall be made of polycarbonate plastic nominally 4.75 inches wide excluding breakaway tabs, and shall be able to hold retroreflectors from the Department's Approved List 22 under Inlaid Pavement Markers.The top of the the retroreflector shall be 1/8 inch below the pavement surface when installed with the breakaway positioning tabs resting on the pavement surface.

Retroreflectors for inlaid pavement markers shall have a nominal width of 4 inches excluding the holders.

(b) **Pavement Markers (Temporary)** – Refer to VTM-70 for testing and approval
(c) **Pavement Markers (Permanent)** – Refer to VTM-70 for testing and approval
(d) **Delineators** – Refer to VTM-70 for testing and approval
(e) **Aluminum panels for delineators** shall be at least 0.064 inch thick conforming to ASTM B-209, alloy 5052.

SS236-002020-01 May 14, 2021

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 236 – WOOD PRODUCTS

SECTION 236 WOOD PRODUCTS of the Specifications is amended as follows:

236.02 – Detail Requirements is replaced with the following:

(a) **Structural timber and lumber** shall conform to AASHTO M168. The species and grade of structural lumber shall be as shown on the plans. .

Except as otherwise specified, the species and grade of structural lumber, timber, and posts for the following applications shall be as follows:

1. **Bridges** shall be at least 1,550(psi) Fb (Fiber Bending) and:

   - 5 inch by 5 inch and larger: Southern Pine, No. 1 Dense.
   - 2 inch through 4 inch by 2 inch through 4 inch: Southern Pine, No. 1 Dense.
   - 2 inch through 4 inch by 5 inch and through 6 inch: Southern Pine, Non-Dense Select Structural
   - 2 inch through 4 inch by 8 inch only: Southern Pine, Non-Dense Select Structural.
   - 2 inch through 4 inch by 10 inch only: Southern Pine, Select Structural.
   - 2 inch through 4 inch by 12 inch only: Southern Pine, Select Structural.

2. **Signs** shall be at least 1,100 (psi) Fb with material being dressed on all sides and:

   - 4 inches and less in the least dimension: Southern Pine, No. 2.
   - Over 4 inches in the least dimension: Southern Pine, No. 1.

3. **Guardrail** shall be at least 1550 (psi) Fb Southern Pine, No. 1 Dense.

4. **Fence** shall be Southern Pine, No. 2, for line, corner, and brace units.

5. **Signalization and electrical service** shall conform to ANSI Class 05.1. Sawn material, both rough and dressed, shall be certified by the mill as to grade and shall be grade marked in accordance with the grading rules and basic provisions of the American Lumber Standards (PS-20-70) by a lumber grading or inspection bureau or agency approved by the Department. The grade mark shall be applied after dressing if the sawn material is dressed.

(b) **Timber piles** shall conform to ASTM D25. Piles shall be clean peeled and have a butt circumference of at least 31 inches. The Engineer will accept piles for fender systems or other nonload bearing uses under the following criteria provided the piles can be properly driven: A straight line from the center of the butt to the center of the tip may lie partly outside the body of the pile, but the distance between the line and pile shall be not more than 1/2 percent of the length of the pile or 3 inches, whichever is smaller.

Points for timber piles shall be steel or cast iron and of a shape that will allow a secure connection to the pile and withstand driving.

Timber piles shall be branded prior to shipment with the supplier brand, year of treatment, species of timber and preservative treatment, retentions, class, and length. Brand symbols shall conform to AWPA M6.

(c) **Wood Preservatives** - Wood preservatives shall conform to the requirements of the American Wood Protection Association (AWPA) U1 Standards. The AWPA designates the different wood exposure conditions in the following "Use Category System":

UC4A: Above ground, ground contact, fresh water contact or other conditions favorable to wood deterioration. (For Example: sign posts, fence posts and gates).

UC4B: Ground contact in severe environments, critically important components and salt water splash zones (For Example: bridge timbers, bridge decking, guardrail posts and offset blocks).

UC4C: Ground contact in very severe environments, or climates with an extremely high potential for deterioration of critical structural components. (For Example: foundation pilings).

UC5B: Wood exposed to salt and brackish water (For Example: piles, bracing and bulk-heads).

Wood preservatives for Highway Construction and Hand-Contact Surfaces, listed in Tables1 and 2 below shall be used according to their suitability for the wood exposure condition and shall not be used interchangeably.

1. Wood used for **Highway Construction** (including but not limited to - bicycle trails, pedestrian overlooks, maintenance applications for posts (sign, fence, guardrail), bridge decking, gates, stair treads, and offset blocks, piles, timbers, and composites) shall be treated with the following preservative per **Table 1** below:

Chromated Copper Arsenate (CCA)

Creosote

Pentachlorophenol (PCP)

Dichloro Octyl Isothiazolin (DCOI)

Table 1 – Southern Yellow Pine Treatments & Retentions for Highway Construction per AWPA

Commodity Specifications		Use Category	Preservative Retentions			
			Waterborne (pcf)	Oil borne (pcf)		
Desig	Wood Usage		CCA	Creosote	PCP	DCOI
A	**Sawn Products:** Boards, lumber and timber	UC4A	0.40	10.0	0.50	0.15
	Lumber and Timber products for bridge structures, bridge decking, gates, and stair treds	UC4C	0.60	12.0 *	0.50	0.2
B	**Posts:** Round, 1/2 and 1/4 round, building, fence and sign posts, poles < 16 feet in length.	UC4A	0.40	N/A	N/A	0.13
	Guardrail Posts and offset blocks	UC4B	0.50	N/A	N/A	0.17
E	**Round Timber Pilings:** Pilings and foundations for land and fresh water use	UC4C	0.80	12.0	0.60	0.2
F	**Wood Composites:** Plywood	UC4A	0.40	10.0	0.50	0.2
	**Glue laminated members (glue then treat)	UC4A	N/A	10.0	0.60	0.2
	**Glue laminated members (treat then glue)	UC4A	0.40	10.0	0.60	0.2
	Laminated veneer lumber	UC4A	N/A	10.0	N/A	N/A
G	**Marine Applications** (in or above salt water, brackish water, or tidal water) Plywood & Solid Sawn	UC5B	2.5	25.0	N/A	N/A
	Piles (outer zone/inner zone)	UC5B	2.5/1.5	20.0	N/A	N/A
	Sawn - Dual treatment: CCA with CR	UC5B	1.5	20.0	N/A	N/A
	Piles - Dual treatment: CCA with CR	UC5B	1.0	20.0	N/A	N/A

***Creosote (CR) preservative is not allowed for bridge decks.**

****For Glue laminated members Contractor must certify glue is compatible with treatment**

2. Wood used for **Hand-Contact Surfaces** (including but not limited to handrails, playground equipment, and picnic tables shall be treated with the following non-arsenical, water-borne preserviatives per **Table 2** below:

   Alkaline Copper Quat (ACQ)
   Copper Azole (CA)
   Micronized Copper Azole (MCA)

Table 2 – Southern Yellow Pine Treatments & Retentions for Hand-Contact Surfaces per AWPA

Commodity Specifications		Use Category	Preservative Retentions		
			Waterborne (pcf)		
Designation	Wood Usage		ACQ-A,B,C,D **	CA-B CA-C **	MCA, MCA-C **
A	**Sawn Products:** Boards, lumber and timber for picnic tables, handrails, playground equipment	UC4B	0.60	0.31	0.31
F	**Wood Composites:** Plywood for picnic tables, handrails, playground equipment	UC4B	0.60	0.31	0.31

** **Note – ACQ, CA, MCA - Many wood treatments can be highly corrosive to metal under some conditions.** Fasteners or connectors that will be in contact with wood using ACQ, CA, MCA wood preservative treatments shall be either 304 or 316 stainless steel or hot-dipped galvanized steel that conforms to ASTM A153 or ASTM A653, Class G185. The Engineer will not permit the use of mechanically galvanized steel hardware or fasteners with ACQ, CA, MCA treated wood. Wood treated with ACQ, CA, MCA shall be separated from steel or aluminum beams or posts using a non-metallic, rubber flashing.

Treatment shall conform to these additional requirements:

1. Waterborne preservatives shall be used for timber where a clean surface is desirable. The moisture content of wood material shall be not more than 19 percent at the time of treatment.
2. Oilborne preservatives (Pentachlorophenol, Creosote, Copper Naphthenate) may be used for timber that is not to be painted. Timbers treated with Pentachlorophenol, Creosote, or Copper Naphthenate shall be free of excess preservative on the wood surface. VDOT allows oilborne preservatives for special projects.
3. Field Cuts to Treated Wood - All cuts, pile cutoffs, bolt holes, field cuts and damage which penetrates the treated zone shall be protected in accordance with AWPA Standard M4. In cases in which the originally used preservative is not available for field use, copper naphthenate with minimum 2% copper metal shall be used. In all cases 3 heavy brushed applications of any preservative shall be used, with adequate penetration time between applications.
4. For any product not listed, refer to the latest AWPA, U1 Standard.
5. Treated timber shall be supplied only from facitities on Approved List # 45.

SS246-002020-02 May 6, 2022

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 246 – PAVEMENT MARKING

SECTION 246 – PAVEMENT MARKING of the Specifications is amended as follows:

Section 246.02 – Detail Requirements is amended to replace the fifth through seventh paragraphs with the following:

Pavement marking materials shall produce a retroreflective line, message, legend or symbol of specified thickness, width or design in accordance with the MUTCD and Contract requirements.

Pavement marking material shall have the pigment, glass beads, retroreflective optics, and filler well dispersed in the resin, and shall be free from skins, dirt, and foreign objects.

Glass beads and retroreflective optics shall conform to Section 234.

Section 246.02(a) – Approval of Pavement Markings is amended to replace the second paragraph of the second bullet with the following:

When pavement markings are installed on the NTPEP test deck or the VDOT facility, the material's thickness, beads/retroreflective optics, and formulation shall be documented to ensure the equivalent thickness, beads/retroreflective optics and formulation are installed on VDOT roadways following approval.

Section 246.02(b) – Certifications is replaced with the following:

The pavement marking material manufacturer shall certify each batch or lot of material supplied and installed is the same product (thickness, retroreflective optics package and formulation) that was tested and approved on the AASHTO/NTPEP or VDOT test facility in accordance with the Materials Division, Manual of Instructions for Certification I and II Materials. The certification shall include the NTPEP test number from the Materials Division's Approved Products List. The Contractor shall retain the manufacturer's certifications.

Section 246.02(c) – Warranty Requirements is amended to replace the first paragraph with the following:

Pavement marking products shall carry the warranties as supplied by the manufacturer of the individual marking types (classes) for the specific timeframes per type and class and the material requirements for retroreflectivity, durability, color, luminance (Y%), and adhesion as referenced herein. Warranties shall be those commercially supplied or those unique to the Commonwealth in the case of certain products, such as Type B, Class VI preformed pavement marking tape as detailed herein. Manufacturers' warranties shall be obtained by the Contractor and assigned to the Department in writing prior to final acceptance. Warranty periods shall begin on the date of receipt at the project as verified by delivery tickets signed by the Engineer.

Section 246.03(a) – Paint Pavement Marking Materials (Type A) is renamed **Section 246.03(a) – Conventional or Cold Weather Paint Marking Materials (Type A, Class I) and** amended to replace the first paragraph with the following:

Type A, Class I paint material shall be a fast-drying, waterborne, nonleaded, acrylic or modified acrylic resin paint suitable for use on both asphalt and hydraulic cement concrete pavement surfaces and shall be selected from the Materials Division's Approved Products List No. 20. Type A, Class I material shall be designed to be applied at approximately 15 mils wet film thickness in conjunction with AASHTO M 247 Type I beads as per Section 234 of the Specifications.

Type A, Class I cold weather paint shall be capable of being both applied and remaining fully adhered to the surface at temperatures below 40 °F.

Section 246.03(a)1e – IR Scan from NTPEP is replaced with the following:

e. **IR Scan from NTPEP**.

Section 246.03(b) – High Build Paint Marking Materials (Type A, Class II) is added as follows:

Type A, Class II Paint material shall be a fast-drying, waterborne, nonleaded, acrylic or modified acrylic resin paint suitable for use on both asphalt and hydraulic cement concrete pavement surfaces and shall be selected from the Materials Division's Approved Products List No. 20. Type A, Class II material shall be designed to be applied at approximately 27 mils wet film thickness.

1. **Initial Approval** - Maintained retroreflectivity, color (including luminance), and durability shall conform to the following requirements after the material has been installed on the test deck for 1 year:

   a. **Maintained Retroreflectivity:** The photometric quantity to be measured is the coefficient of retroreflected luminance (R_L) in accordance with ASTM E1710 for 30-meter geometry. R_L shall be expressed in millicandelas per square foot per foot-candle when measured in the skipline or centerline areas:

Coefficient of Retroreflected Luminance (R_L) (mcd/ft^2/fc) Paint

Color	Initial	1 Year In-Service
White	300	125
Yellow	225	100

   b. **Day and Nighttime Color and Luminance (Y%):** Measured according to ASTM D6628.

   c. **Durability:** Paint shall have a durability rating of at least 8 when determined in the wheel path area when tested in accordance with the NTPEP Work Plan.

   d. **Skid Resistance:** The initial skid resistance shall be at least 45 BPN when tested according to ASTM E303, if available.

   e. **IR Scan from NTPEP**.

2. **Batch Testing**

   Paint batch testing shall be performed by the Department on samples obtained from the point of manufacture or from the field in accordance with the Materials Division's Manual of Instructions. The test results shall be compared against NTPEP lab test results and the Specifications. Testing shall be performed to determine the following physical requirements and properties:

   a. **Solids, (% weight)** according to ASTM D2369: Acceptable range from NTPEP results (+/- 2%).

   b. **Pigment (% weight)** according to ASTM D3723: Acceptable range from NTPEP results (+/- 2%).

   c. **Density (wt/gal.)** according to ASTM D1475: Acceptable range from NTPEP results (+/-0.3 lbs/gal).

   d. **Viscosity (KU)** according to ASTM D562: Acceptable range from NTPEP results (+/-5KU).

e. **Contrast Ratio** according to ASTM D2805 (2°,D 65): Paint shall show a dry hiding quality that will give a contrast ratio of at least 0.96 at (15 mil) wet film thickness.

f. **Day Color, Luminance (Y%) - (without Drop-on Beads):**

Color testing results shall conform to the chromaticity coordinate limits that follow. Color determination for paint materials will be made without drop-on beads at least 24 hours after application in accordance with ASTM D6628.

Day Color, Chromaticity Coordinates (Without Drop-on Beads), High Build Paint

	x	y	x	y	x	y	x	y	Y%
White	0.355	0.355	0.305	0.305	0.285	0.325	0.335	0.375	80.0 Min
Yellow	0.493	0.473	0.518	0.464	0.486	0.428	0.469	0.452	50.0-60.0

g. **Settling properties:** Settling shall be no less than a rating of 8 when tested in accordance with the NTPEP Work Plan.

h. **Freeze-thaw and heat stability:** Paint shall show no coagulation or change in viscosity greater than +/- 5 KU when tested in accordance with the NTPEP Work Plan.

i. **Water resistance:** Paint shall show no blistering, peeling, wrinkling, softening, or loss of adhesion when tested in accordance with the NTPEP Work Plan.

j. **VOC:** The VOC content shall be no greater than 150 grams/liter when tested in accordance with EPA Method 24.

k. **Flash point:** Paint shall have a flash point of at least 201 degrees F when tested in accordance with ASTM D93, Pensky-Martens Closed Cup.

l. **Infrared (IR) Scan:** Shall match IR scan from NTPEP.

Section 246.03(b) – Thermoplastic Marking Materials (Type B, Class I) is renumbered as 246.03(c) and replaced as follows:

Thermoplastic material shall be suitable for use on asphalt and hydraulic cement concrete pavement surfaces and shall be selected from the Materials Division's Approved Products List No. 43.

The binder shall be either alkyd or hydrocarbon based. If an alkyd thermoplastic is used, the binder shall consist of synthetic resins, at least one of which is solid at room temperature, and high-boiling plasticizers. At least one-half of the binder composition shall be a maleic-modified glycerol ester of resin and shall be at least 10 percent by weight of the entire material formulation.

Thermoplastic marking materials shall be capable of application at pavement surface temperatures of 50 degrees Fahrenheit and above on all asphalt and hydraulic cement concrete pavement surfaces. Thermoplastic material shall be capable of successfully fusing to itself and previously applied thermoplastic pavement markings.

1. **Initial Approval** - Maintained retroreflectivity, color, luminance (Y%), and durability shall conform to the following requirements after the material has been installed on the test deck for 1 year:

a. **Maintained Retroreflectivity:** The photometric quantity to be measured is the coefficient of retroreflected luminance (R_L) in accordance with ASTM E1710 for 30-meter geometry when measured in the skip line area.

Coefficient of Retroreflected Luminance (R_L) (mcd/ft^2/fc) Thermoplastic

Color	Initial	1 Year In-Service
White	300	250
Yellow	250	200

b. **Day and Nighttime Color and Luminance (Y%):** According to ASTM D6628

c. **Durability:** Thermoplastic shall have a durability rating of at least 8 as determined in the wheel path area when tested in accordance with the NTPEP Work Plan.

d. **Skid Resistance:** The initial skid resistance shall be at least 45 BPN when tested per ASTM E303, if available.

2. **Batch Testing:**

Thermoplastic batch testing will be performed by the Department on samples obtained from the point of manufacture or from the field in accordance with the Materials Division's Manual of Instructions. The tests results will be compared against the following specifications and requirements:

a. **Pigment and Glass Bead (% Weight)** according to ASTM D4451 82.0% Max

b. **Intermix Glass Bead Content (% Weight)** according to AASHTO T 250 and ASTM D4797 30.0% Min

c. **TiO2 (%) for white thermoplastic** according to ASTM D1394 or equivalent method 10.0% Min

d. **Binder (%)** according to AASHTO T 250/ASTM D4451 18.0% Min

e. **Calcium Carbonate and Inert Fillers** 42.0 % Max

f. **Day Color, Luminance (Y%) (Without Drop-on Beads):** Color testing results shall conform to the chromaticity coordinate limits that follow. Color determination for thermoplastic materials will be made without drop-on beads after cooling in accordance with AASHTO T 250 and ASTM D6628.

Day Color, Chromaticity Coordinates (Without Drop-on Beads), Thermoplastic

	x	y	x	y	x	y	x	y	Y%
White	0.355	0.355	0.305	0.305	0.285	0.325	0.335	0.375	80.0 Min
Yellow	0.499	0.466	0.545	0.455	0.518	0.432	0.485	0.454	40.0-60.0

g. **Nighttime Yellow Color (with Drop-on Beads):** The initial nighttime color of yellow thermoplastic pavement marking material shall conform to the following CIE chromaticity coordinate requirements when tested in accordance with ASTM D6628 and VTM-111:.

Night Time Color, Chromaticity Coordinates (with Drop-on Beads) Thermoplastic								
	1		2		3		4	
Color	x	y	x	y	x	y	x	y
Yellow	0.486	0.439	0.520	0.480	0.560	0.440	0.498	0.426

h. **Water absorption:** Materials shall not have more than 0.5 percent retained water by weight when tested in accordance with ASTM D570, Procedure A.

i. **Softening point:** Materials shall have a softening point of at least 194 degrees F as determined in accordance with ASTM E28.

j. **Specific gravity:** The specific gravity of the thermoplastic compound at 77 degrees F shall be from 1.7 to 2.2.

k. **Impact resistance:** The impact resistance shall be at least 10 inch-pounds at 77 degrees F after the material has been heated for 4 hours at 400 degrees F and cast into bars of 1-inch cross-sectional area, 3 inches long, and placed with 1 inch extending above the vise in a cantilever beam, Izod-type tester conforming to ASTM D256 using the 25 inch-pound scale.

l. **No-Track Time:** Material shall set to bear traffic in not more than 2 minutes when the road temperature is 50 degrees F or above.

m. **Intermixed Glass beads:** Glass beads shall conform to Section 234.

n. **Flashpoint:** The material flashpoint shall be no less than 500 degrees F when tested in accordance with ASTM D92.

Section 246.03(c) Preformed Thermoplastic Pavement Marking Material (Type B, Class II) is renumbered as 246.03(d).

Section 246.03(d)1 Initial approval is amended to replace the first paragraph with the following:

Maintained retroreflectivity, color, luminance (Y%), and durability shall conform to the following requirements after the material has been installed on the test deck for 1 year:

Section 246.03(d) Epoxy-Resin Pavement Marking Material (Type B, Class III) is renumbered as 246.03(e).

Section 246.03(e)1 Initial approval is amended to replace the first paragraph with the following:

Maintained retroreflectivity, color, luminance (Y%), and durability shall conform to the following requirements after the material has been installed on the test deck for 1 year:

Section 246.03(e) Polyurea Pavement Marking Material (Type B, Class VII) is renumbered as 246.03(f).

Section 246.03(f)1 Initial approval is amended to replace the first paragraph with the following:

Maintained retroreflectivity, color, luminance (Y%)), and durability shall conform to the following requirements after the material has been installed on the test deck for 1 year:

Section 246.03(f) Permanent, Plastic-Backed, Preformed Tapes (Type B, Class IV and Type B, Class VI) is renumbered as 246.03(g).

Section 246.03(g)1 Initial approval is amended to replace the first paragraph with the following:

Maintained retroreflectivity, color, luminance (Y%), durability, and adhesion shall conform to the following requirements after the material has been installed on the test deck for 1 year:

Section 246.03(g) – Temporary Pavement Marking Materials is renumbered as 246.03(h) and replaced with the following:

Temporary Pavement Marking Materials other than paint shall consist of Type D, Class III, removable, wet reflective tape and Type E removable black, non-reflective tape. Determination of conformance will include, but not be limited to, the evaluation of test data from AASHTO's NTPEP or other VDOT Test Facilities.

1. **Wet Reflective, Removable Tape (Type D, Class III):**

   Wet reflective, removable tape shall be a durable, retro-reflective pliant material consisting of a mixture of polymeric materials, pigments, and glass beads (reflective optics) evenly distributed throughout its cross-sectional area and embedded into the surface. This tape shall be suitable for use on both asphalt and hydraulic cement concrete surfaces and shall be selected from the Department's Approved List 17.

   a. **Initial Approval** - Maintained retroreflectivity (dry and wet), color, luminance (Y%), and adhesive bond rating shall conform to the following requirements after the material has been installed on the test deck for 90 days:

      (1) **Maintained Dry Retroreflectivity:** The dry photometric quantity to be measured is the coefficient of retroreflected luminance (R_L) in accordance with ASTM E1710 for 30-meter geometry when measured in the skip line or centerline areas.

Coefficient of Retroreflected Luminance (R_L) (mcd/ft^2/fc) Dry Retro Removable Tape-Type D, Class III

Color	Initial	90 Days In-Service
White	250	150
Yellow	200	100

      (2) **Maintained Wet Retroreflectivity:** The wet photometric quantity to be measured is the coefficient of retroreflected luminance (R_L) in accordance with VTM 124 (Visual Evaluation or ASTM E2177, Recovery Method) when measured in the skip line or centerline areas.

Coefficient of Retroreflected Luminance (R_L) (mcd/ft^2/fc) Wet Retro Removable Tape-Type D, Class III

Color	Initial	90 Days In-Service
White	150	100
Yellow	125	75

      (3) **Day and Nighttime Color and Luminance (Y%):** According to ASTM D6628.

      (4) **Adhesive Bond Rating:** The average adhesive bond rating (from transverse and longitudinal lines) shall be 3 or higher according the NTPEP Work Plan.

      (5) **Skid Resistance:** The initial skid resistance shall be at least 45 BPN when tested according to ASTM E303, if available.

      (6) **Thickness:** Per the manufacturer's recommendation.

      (7) **Adhesion:** No line shall be displaced, torn or missing.

   b. **Batch Testing**:

      Wet reflective, removable tape batch testing will be performed by the Department on samples obtained from the point of manufacture or from the field in accordance with the

Materials Division's Manual of Instructions. Test results shall be compared against the following specifications and requirements:

(1) **Retroreflectivity:** Refer to initial requirements

(2) **Day and Night Color and Luminance:** Refer to initial requirements

(3) **Thickness:** Refer to initial requirements

(4) **Width:** The width shall be no less than the nominal width and no greater than 1/8" of the nominal width.

(5) **Length:** The length shall be no less than the length stated on the manufacturer's packaging.

(6) **Skid Resistance:** Refer to initial requirements.

2. **Removable Black, Non-Reflective Tape (Type E):**

Removable black, non-reflective tape shall be a durable, pliant material consisting of a mixture of polymeric materials, pigments and a friction material evenly distributed throughout its cross-sectional area and embedded into the surface. Removable black, non-reflective tape shall be suitable for use on asphalt concrete pavement surfaces, and shall be selected from the Department's Approved List 17.

a. **Initial Approval** - Maintained adhesive bond rating shall conform to the following requirements after the material has been installed on the test deck for 90 days:

(1) **Adhesive Bond Rating:** The average adhesive bond rating (from transverse and longitudinal lines) shall be 3 or higher according to the NTPEP Work Plan.

(2) **Skid Resistance:** The initial skid resistance shall be at least 45 BPN when tested according to ASTM E303, if available.

(3) **Thickness:** Per the manufacturer's recommendation.

(4) **Adhesion:** No line shall be displaced, be torn or missing.

b. **Batch Testing**

Black removable, non-reflective tape batch testing will be performed by the Department on samples obtained from the point of manufacture or from the field in accordance with the Materials Division's Manual of Instructions. Test results shall be compared against the following specifications:

(1) **Skid Resistance:** Refer to initial requirements

(2) **Thickness:** Refer to initial requirements

(3) **Width:** The width shall be no less than the nominal width and no greater than 1/8" of the nominal width.

(4) **Length:** The length shall be no less than the length stated on the manufacturer's packaging.

SS248-002020-02 March 18, 2024

VIRGINIA DEPARTEMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 248 – STONE MATRIX ASPHALT CONCRETE

SECTION 248 – STONE MATRIX ASPHALT CONCRETE of the Specifications is amended as follows:

248.02 – Materials (f) is amended by replacing the first paragraph with the following:

Antistripping Additive: An antistripping additive shall be used in all stone matrix asphalt mixes. It may be hydrated lime or a chemical additive from the Materials Division's Approved List No. 7, or a combination of both. When an approved chemical additive is used, it shall be added at a rate of not less than 0.30 percent by weight of the total asphaltcontent of the mixture unless otherwise indicated on the Department's Approved List No. 7.

248.03 – Composition of SMA Mixtureis amended as follows**:**

TABLE II-24 is replaced with the following:

TABLE II-24
SMA Design Range

Type No.	Percentage by Weight Passing Square Mesh Sieves (in)							
(See Note)	**1**	**3/4**	**1/2**	**3/8**	**No. 4**	**No. 8**	**No. 30**	**No. 200**
Surface Mixes								
SMA 12.5		100	83-93	80 max	22-27	16-24	14-20	9-11
SMA 9.5		100	90-100	65-75	25-32	15-25		9-11
Intermediate Mixes								
SMA 19.0	100	85-95	50-60	30-45		16-24	12-16	8-10

Note: The required PG binder will be shown in parentheses as part of the mix type on the plans or in the proposal, e.g., SMA 12.5 (64E-22).

Section 248.04—Acceptance is amended by replacing the third, fourth, fifth, and sixth paragraphs with the following:

The Contractor shall check and report the percentage of flat and elongated particles (F&E) in the coarse aggregates of the mix design during production. Two of eight sub-lots from the first lot of material shall be selected for F&E verification when the Contractor samples the SMA material for acceptance (gradation and AC content). F&E testing shall be performed in accordance with VTM-121, after the gradation is performed. If passing results are obtained on each sample in the first lot, then F&E testing shall be performed on a frequency of every second lot of material produced (i.e., Lots 3, 5, 7, etc.) by randomly selecting two sub-lots. If the F&E of the mix exceeds the specified limits, the Contractor shall stop production and notify the Engineer. Production shall not resume until the Contractor has taken corrective action and the Engineer has accepted the Contractor's means of correction. Once production has resumed, the Contractor shall determine the F&E of the mix for two consecutive lots by randomly selecting two sub-lots per lot. If passing results are obtained for these two lots, then the F&E testing frequency shall return to every second lot of material produced.

The Contractor shall check and report the VCA of the mix during production for each gyratory sample. If the VCA of the mix equals the VCA of the DRC, the Contractor shall immediately notify the Engineer, document the JMF changes in the Producer Lab Analysis and Information Details (PLAID) website, and provide corrective action. If the VCA of the mix exceeds the VCA of the DRC, the Contractor shall stop production, notify the Engineer, and remove and replace that day's production at no cost to the Department. Production shall not resume until the Contractor has taken corrective action and the Engineer has accepted the Contractor's means of correction.

If the Department determines that the mixture being produced does not conform to the approved job-mix formula or the volumetric properties in Table II-25, based on the Department or the Contractor's test results, the Contractor shall immediately make corrections to bring the mixture into conformance with the approved job-mix formula and Table II-25 or cease paving with that mixture. The Engineer will investigate and determine the acceptability of the mix placed since the previous passing sample.

The finished pavement shall be uniform, free of irregularities and smooth. If irregularities including segregation, rutting, raveling, flushing, fat spots, mat slippage,irregular color, irregular texture, roller marks, tears, gouges, streaks,uncoated aggregate particles, or broken aggregate particles are detected, the Contractor shall immediately notify the Engineer and address the determined irregularities with corrective action. When irregularities are noted, the acceptability of the finished mat shall be determined by the Engineer.
The Engineer will limit subsequent paving operations using either a revised or another job-mix formula, which has not been verified as described herein, to a test run of 300 tons maximum if such material is to be placed in Department project work. The Engineer will not allow any further paving for the Department using that revised mixture until the acceptability of that mixture has received the Engineer's approval based on the 300-ton constraint.

SS305-002020-02 December 20,2023

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 305 – SUBGRADE AND SHOULDERS

Section 305.03(a)1 – Subgrade consisting of material in place is replaced with the following:

1. **Subgrade consisting of material in place:** The subgrade area shall be scarified to a depth of 6 inches for a distance of 2 feet beyond the proposed edges of the pavement on each side. If sandy or other soil is encountered that will not compact readily, clay or other suitable material may be added or water applied in such quantity and within the allowable moisture content specified herein as will permit compaction of the subgrade. Subgrade material shall be compacted at optimum moisture, within ±20 percent of optimum. The density of the subgrade when compared to the theoretical maximum density as determined in accordance with VTM-1 or VTM-12 shall conform to the following:

% Retained on No. 4 Sieve	Min. % Density
0-50	100
51-60	95
61-70	90

Percentages of material shall be reported to the nearest whole number.

Field density determination will be performed with a portable nuclear density gauge as specified in VTM-10, or by other approved methods as directed by the Engineer.

The Contractor shall then shape and check the subgrade to ensure a typical cross section and uniform grade prior to placement of any subsequent courses. If the subgrade becomes eroded or distorted prior to placement of material for subsequent courses, the Contractor shall scarify, reshape, and recompact it in accordance with the original requirements.

At the time of placing material for subsequent courses, the Contractor shall compact the subgrade to the required density, free from mud and frost, and to a condition that will permit compaction of subsequent courses without distortion.

The Contractor shall remove material from the unstable area and contaminated aggregate if the approved subgrade becomes unstable after placement of the subbase or base course and becomes mixed with the aggregate therein. The area shall then be backfilled and compacted, and the subsequent course thereon reconstructed.

Section 305.03(e) – Shoulders is replaced with the following:

Shoulders: Aggregate shoulder material shall be placed in accordance with the applicable specifications governing the type of material or construction being used and shall be compacted at optimum moisture, within ±2 percentage points of optimum. Except when aggregate material No. 18 is used, the density of the aggregate shoulder material, when compared to the theoretical maximum density as determined in accordance with VTM-1, shall conform to the following:

% Retained on No. 4 Sieve	Min. % Density
0-50	100
51-60	95
61-70	90

Percentages of material will be reported to the nearest whole number. The above density requirements may be reduced by 5% per VTM-10 when using the portable nuclear density gauge in direct transmission mode.

When aggregate material No. 18 is used, the density, when compared to the theoretical maximum density, shall be not less than 90 percent or more than 95 percent.

Field density determination will be performed with a portable nuclear density gauge as specified in VTM-10, or by other approved methods as directed by the Engineer. When the total thickness of the layer for aggregate shoulder material being constructed is less than 4 inches, the minimum density requirement may not be enforced. For such cases, the aggregate shoulder should be compacted with three or more passes of a heavy-duty vibratory roller (e.g., a 10-ton smooth drum roller) or as approved by the Engineer. The aggregate shoulder should be compacted until it is apparent that no further densification can be obtained.

When it is determined by the Engineer that operating a roller/compactor on the shoulder material is a rollover hazard, the compaction requirements can be waived by the Engineer.

Aggregate in the guardrail section of fills, 1 foot from the roadway side of the guardrail face to the outside of the shoulder, shall be compacted until a density of at least 90 percent of the theoretical maximum density has been obtained. The asphalt mixture in this area shall be sealed immediately after the hot mixture is spread. Rolling of the asphalt mixture shall continue until roller marks are eliminated.

Stabilized and paved shoulders shall be constructed in accordance with the applicable specifications for pavement stabilization. If the aggregate shoulder material becomes overconsolidated prior to final finishing, it shall be scarified for the approximate depth, reshaped, and recompacted to conform to the specified grade and cross section.

Shoulders shall be constructed simultaneously with nonrigid types of base or surface courses other than asphalt concrete or in advance of the base or surface course so as to prevent spreading of base or surface materials. The area of shoulders 12 inches adjacent to the pavement shall be rolled simultaneously with the course being deposited.

Where base or surface courses are being constructed under traffic and are more than 1 inch in depth, shoulder material adjacent thereto shall be placed within 72 hours after placement of the base or surface course.

SS308-002020-01 July 13, 2021

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 308 – SUBBASE COURSE

SECTION 308 – SUBBASE COURSE of the Specifications is amended as follows:

Section 308.03 – Procedures is replaced by the following:

Prior to placement of the subbase course, the subgrade shall be constructed in accordance with Section 304 and Section 305 as applicable.

Subbase material shall be mixed in an approved central mixing plant of the pugmill or other mechanical type in accordance with Section 208.05. The Contractor shall place the mixed material on the subgrade by means of an approved aggregate spreader. The Engineer will not require the use of such spreader when the material is being applied solely for the temporary maintenance of traffic or where the width of the course shown on the plans is transitional and impracticable to place with a spreader box.

The Contractor shall spread and compact the material in two or more layers of approximately equal thickness where the required thickness is more than 6 inches. The compacted thickness of any one layer shall be not more than 6 inches, however the Engineer may approve increasing the compacted depth of a single layer of the subbase course to 10 inches when vibrating or other approved types of special compacting equipment are used.

Each layer of subbase course shall be compacted at optimum moisture, within ±2 percentage points of optimum. The density of each layer of subbase aggregate material, when compared to the theoretical maximum density as determined in accordance with VTM-1, shall conform to the following:

% Material Retained on No. 4 Sieve	Min. % Density
0-50	100
51-60	95
61-70	90

Percentages shall be reported to the nearest whole number. The above density requirements may be reduced by 5% per VTM-10 when using the portable nuclear density gauge in direct transmission mode.

The Department will perform field density determinations with a portable nuclear density gauge using the density control strip as specified in Section 304 and VTM-10, or by other approved methods as directed by the Engineer.

The Contractor shall scarify, reshape, and recompact the surface of the subbase if it becomes uneven or distorted and sets up in that condition. If the subbase when compacted and shaped shows a deficiency in thickness or if depressions occur in the surface, the Contractor shall scarify such sections at his own expense before additional material is added.

SS309-002020-01 July 13, 2021

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 309 – AGGREGATE BASE COURSE

SECTION 309 – AGGREGATE BASE COURSE of the Specifications is amended as follows:

Section 309.05 – Density Requirements is replaced by the following:

The Contractor shall spread and compact the material in two or more layers of approximately equal thickness where the required thickness is more than 6 inches. The compacted thickness of any one layer shall be not more than 6 inches, however the Engineer may approve increasing the compacted depth of a single layer of the base course to 10 inches when vibrating or other approved types of special compacting equipment are used.

The Contractor shall compact each layer at optimum moisture within ±2 percentage points of optimum after mixing and shaping. The density of each layer of base aggregate material, when compared to the theoretical maximum density as determined in accordance with VTM-1, shall conform to the following:

% Material Retained on No. 4 Sieve	Min. % Density
0-50	100
51-60	95
61-70	90

Percentages shall be reported to the nearest whole number. The above density requirements may be reduced by 5% per VTM-10 when using the portable nuclear density gauge in direct transmission mode.

The base course will be tested in place for depth and density. The Department will perform field density determinations with a portable nuclear density gauge using the density control strip as specified in Section 304 and VTM-10, or by other approved methods as directed by the Engineer.

The Contractor shall maintain the surface of each layer during the compaction operations in a manner such that a uniform texture is produced and the aggregates are firmly keyed. The Contractor shall uniformly apply water over the base materials during compaction in the amount necessary to obtain proper density.

Irregularities in the surface shall be corrected by scarifying, remixing, reshaping, and recompacting until a smooth surface is secured. The surface shall thereafter be protected against the loss of fine materials by the addition of moisture, when necessary, and shall be maintained in a satisfactory and smooth condition until accepted by the Engineer.

The Engineer will base acceptance of the aggregate base course for depth on the requirements of Section 308.

SS315-002020-04 June 16, 2023

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 315 – ASPHALT CONCRETE PLACEMENT

SECTION 315 – ASPHALT CONCRETE PLACEMENT of the Specifications is replaced with the following:

315.01 – Description

This work shall consist of constructing one or more courses of asphalt concrete on a prepared foundation in accordance with these Specifications and within the specified tolerances for the lines, grades, thicknesses, and cross sections shown on the plans or established by the Engineer. At the Contractor's option, the asphalt concrete mix may be produced using a warm-mix additive or warm-mix process approved by the Department. When used, the temperature placement limitations for Warm Mix Asphalt (WMA) shall apply.

This work shall also consist of constructing asphalt concrete curb and rumble strips in accordance with these Specifications, plan details, and the Standard Drawings.

315.02 – Materials

(a) **Asphalt concrete** shall conform to Section 211. The Contractor shall alter the design if SUPERPAVE design densities begin to exceed 98 percent of the Theoretical Maximum Density (TMD) during construction.

(b) **Asphalt for Tack Coat** shall conform to Section 210 and shall be applied according to Section 310.

(c) **Asphalt for prime coat** shall conform to Section 210 and shall be applied according to Section 311.

(d) **Curb backup material** shall be asphalt concrete conforming to any surface or intermediate mixture listed in Table II-13 and Table II-14.

(e) **Liquid asphalt coating (emulsion) for rumble strips** shall conform to Section 210. The Contractor shall use CSS-1h or CQS-1h asphalt emulsions for centerline rumble strips. The CSS-1h or CQS-1h liquid asphalt may be diluted by up to 30 percent at the emulsion manufacturer's facility.

315.03 – Equipment

(a) **Hauling Equipment:** Trucks used for hauling asphalt mixtures shall have structurally sound, tight, clean, smooth metal or other non-absorptive, inert material bodies equipped with a positive locking metal tailgate. Surfaces in contact with asphalt mixtures shall be given a thin coat of aliphatic hydrocarbon invert emulsion release agent (nonpuddling), a lime solution, or other release agent materials on the Materials Division's Approved List No. 8. The beds of dump trucks shall be raised to remove excess release agent prior to loading except when a nonpuddling release agent is used. Only a nonpuddling agent shall be used in truck beds that do not dump. Each Contractor truck used for hauling asphalt shall be equipped with a tarpaulin or other type of cover acceptable to the Engineer that shall protect the mixture from moisture and foreign matter and prevent the rapid loss of heat during transportation.

(b) **Asphalt Pavers:** The asphalt paver shall be designed and recommended by the Manufacturer for the type of asphalt to be placed and shall be operated in accordance with the Manufacturer's recommendations. The Contractor shall readily have and maintain on the project site any written recommendations from the Manufacturer of the mix relative to handling and placing of the mixture. In the absence of the Manufacturer's recommendations, the recommendations of the National Asphalt Pavement Association shall be followed. The paver shall be capable of producing a smooth uniform texture, dense joints, and a smooth riding surface even when screed extensions are used.

(c) **Rollers:** Rollers shall be steel wheel, static or vibratory, or pneumatic tire rollers and shall be capable of reversing without backlash. The Contractor shall operate rollers at speeds slow enough to avoid displacement of the mixture. The number and weight of rollers shall be sufficient to compact the mixture to the required density while it is still in a workable condition. The Engineer will not allow the use of equipment that results in excessive crushing of aggregate or marring of the pavement surface. If the Contractor's equipment mars the surface of the pavement during construction to the extent that imperfections cannot satisfactorily be corrected or produces permanent blemishes, the Engineer will require the Contractor to discontinue the use of that particular equipment and replace that equipment with satisfactory units.

(d) **Rotary Saw:** The Contractor shall supply a gasoline-powered rotary saw with a carbide blade for cutting test samples from the pavement. The Contractor shall provide gasoline, oil, additional carbide blades, and maintenance for the rotary saw. The Contractor shall cool the pavement prior to sawing the sample. As an alternative, the Contractor may furnish the necessary equipment for coring and testing 4-inch core samples in accordance with VTM-22.

(e) **Material Transfer Vehicle (MTV):** When required in the Contract, the Contractor shall furnish a self-propelled MTV storage unit capable of receiving material from trucks, storing the material, and transferring the material from the unit to a paver hopper insert via a conveyor system. The paver hopper insert and unit shall have a combined minimum storage capacity of 15 tons. The storage unit or paver hopper insert must be able to remix the material in order to produce a uniform, non-segregated mix having a uniform temperature prior to placing the asphalt material on the roadway surface.

315.04 – Placement Limitations

The Contractor shall not place asphalt concrete mixtures when weather or surface conditions are such that the material cannot be properly handled, finished, or compacted. The surface upon which asphalt mixtures is to be placed shall be free of standing water, dirt, and mud and the base temperature shall conform to the following:

(a) Asphalt Concrete Produced with Warm Mix Asphalt Additives or Processes:

The Contractor shall note on the delivery ticket that the load is Warm Mix Asphalt.

1. **When the base temperature is 40 degrees F and above:** The Engineer will permit lay-down at any temperature below the maximum limits given in Section 211.08.

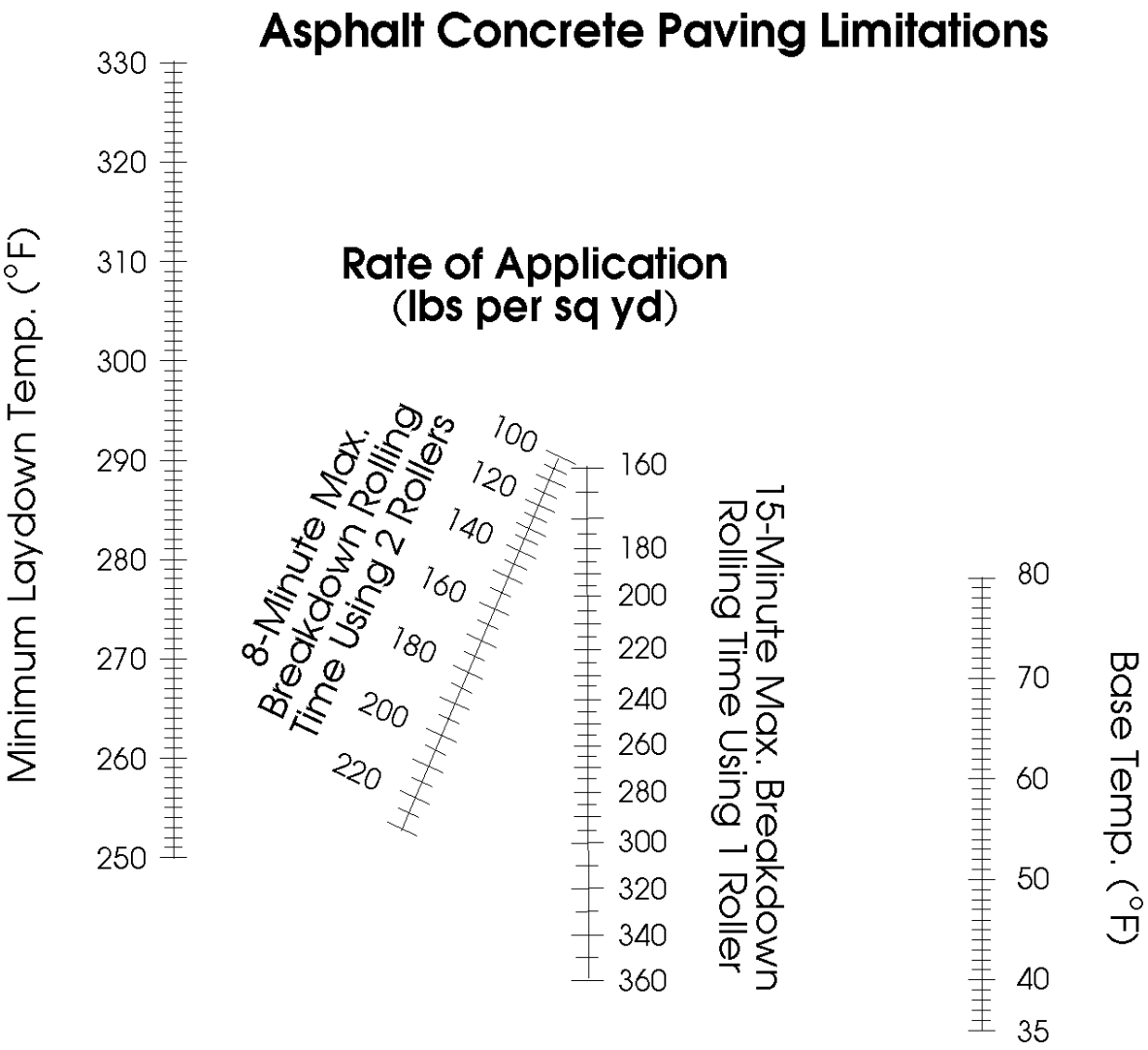
2. **When the mixture temperature is below 200 degrees F:** The Contractor will not be allowed to place the material.

(b) **Asphalt Concrete Produced without Warm Mix Asphalt Additives or Processes:**

1. **When the base temperature is above 80 degrees F:** The Engineer will allow laydown of the mixture at any temperature conforming to the limits specified in Section 211.

2. **When the base temperature is between 40°F and 80°F** the Contractor shall use Table III-2 to determine the minimum laydown temperature of the asphalt concrete mixes. At no time shall the base temperature for base (BM) and intermediate (IM) mixes be less than 40°F. At no time shallthe laydown temperature for BM and IM mixes be less than 250°F.

TABLE III-2
Cold Weather Paving Limitations



The minimum base and laydown temperatures for surface mixes (SM) shall never be less than the following:

PG Binder/Mix Designation	Percentage of Reclaimed Asphalt Pavement (RAP) Added to Mix	Minimum Base Temperature	Minimum Placement Temperature
PG 64S-22 (A)	<=25%	40°F	250°F
PG 64S-22 (A)	>25%	50°F[2]	270°F[2]
PG 64H-22 (D)	<=30%	50°F[2]	270°F[2]
PG 64E-22 (E)	<=15%	50°F[2]	290°F[2]
PG 64S-22 (S)	<=30%	50°F[2]	290°F[2]

3. **When the laydown temperature is between 301 degrees F and 325 degrees F:** The number of compaction rollers shall be the same number as those required for 300 degrees F.

   Intermediate and base courses that are placed at rates of application that exceed the application rates shown in Table III-2 shall conform to the requirements for the maximum application rate shown for 8-minute and 15-minute compaction rolling as per number of rollers used.

   If the Contractor is unable to complete the compaction rolling within the applicable 8-minute or 15-minute period, the Engineer will either require the placing of the asphalt mixture to cease until sufficient rollers are used or other corrective action be taken to complete the compaction rolling within the specified time period.

   The Contractor shall complete compaction rolling prior to the mat cooling down to 175 degrees F. Finish rolling may be performed at a lower mat temperature.

   The Contractor shall not place the final asphalt pavement finish course until temporary pavement markings will no longer be required.

(c) **SM-4.75 Mixtures Placement**:

1. The minimum placement temperature shall be 290°F regardless of WMA use.
2. The minimum ambient and base temperature shall be 50°F. The Contractor shall employ a MTV during the placement of SM-4.75 mixtures when either the ambient or base temperature is between 50°F and 60°F.

315.05 – Procedures

(a) **Base Course:** The Contractor shall prepare the subgrade or subbase as specified in Section 305. The Contractor shall grade and compact the course to the required profile upon which the pavement is to be placed, including the area that will support the paving equipment.

(b) **Conditioning Existing Surface:** The surface on which the asphalt concrete is to be placed shall be prepared in accordance with the applicable specifications and shall be graded and compacted to the required profile and cross section.

When specified in the Contract, before placement of asphalt concrete, the Contractor shall seal longitudinal and transverse joints and cracks by the application of an approved crack sealing material in accordance with Section 322.

1. **Priming and Tacking:** The Contractor shall paint contact surfaces of curbing, gutters, manholes, and other structures projecting into or abutting the pavement and cold joints of asphalt with a thick, uniform coating of asphalt prior to placing the asphalt mixture.

The Contractor shall apply a tack or prime coat of asphalt conforming to the applicable requirements of Section 311 or Section 310 and as specified below. Liquid asphalt classified as cutbacks or emulsions shall be applied ahead of the paving operations, and the time interval between applying and placing the paving mixture shall be sufficient to ensure a tacky residue has formed to provide maximum adhesion of the paving mixture to the base. The Contractor shall not place the mixture on tack or prime coats that have been damaged by traffic or contaminated by foreign material. Traffic shall be excluded from such sections.

a. **Priming aggregate base or subbase:** The Engineer will not require priming with asphalt material on aggregate subbase or base material prior to the placement of asphalt base, intermediate or surface layers unless otherwise specified in the Contract.

b. **Tacking:** Tack at joints, adjacent to curbs, gutters, or other appurtenances shall be applied with a hand wand or with spray bar at the rate of 0.2 gallon per square yard. At joints, the tack applied by the hand wand or a spray bar shall be 2 feet in width with 4 to 6 inches protruding beyond the joint for the first pass. Tack for the adjacent pass shall completely cover the vertical face of the pavement mat edge so that slight puddling of asphalt occurs at the joint, and extend a minimum of 1 foot into the lane to be paved. Milled faces that are to remain in place shall be tacked in the same way for the adjacent pass. Use of tack at the vertical faces of longitudinal joints will not be required when paving is performed in echelon.

   The tack coat shall be eliminated on asphalt saturated (rich) sections or those that have been repaired by the extensive use of asphalt patching mixtures when directed by the Engineer.

   Tack shall not be required atop asphalt stabilized open-graded material drainage layers.

   Tack shall be applied between the existing asphalt surface and each asphalt course placed thereafter.

2. **Removing depressions and elevating curves:** Where irregularities in the existing surface will result in a course more than 3 inches in thickness after compaction, the Contractor shall bring the surface to a uniform profile by patching with asphalt concrete and thoroughly tamping or rolling the patched area until it conforms with the surrounding surface. The mixture used shall be the same as that specified for the course to be placed.

   When the Contractor elects to conduct operations to eliminate depressions, elevate curves, and place the surface course simultaneously, the Contractor shall furnish such additional spreading and compacting equipment as required to maintain the proper interval between the operations.

(c) **Placing and Finishing:** The Contractor shall not place asphalt concrete until the Engineer approves the surface upon which it is to be placed.

The Contractor’s equipment and placement operations shall properly control the pavement width and horizontal alignment. The Contractor shall use an asphalt paver sized to distribute asphalt concrete over the widest pavement width practicable. Wherever practicable, and when the capacity of sustained production and delivery is such that more than one paver can be successfully and continuously operated, pavers shall be used in echelon to place the wearing course in adjacent lanes. Crossovers, as well as areas containing manholes or other obstacles that prohibit the practical use of mechanical spreading and finishing equipment may be constructed using hand tools. However, the Contractor shall exercise care to obtain the required thickness, jointing, compaction, and surface smoothness in such areas.

The longitudinal joint in one layer shall offset that in the layer immediately below by approximately 6 inches or more. The joint in the wearing surface shall be offset 6 inches to 12 inches from the centerline of the pavement if the roadway comprises two traffic lanes. The joint shall be offset approximately 6 inches from the lane lines if the roadway is more than two lanes in width. The longitudinal joint shall be uniform in appearance. If the offset for the longitudinal joint varies from a straight line more than 2 inches in 50 feet on tangent alignment, or from a true arc more than 2 inches in 50 feet on curved alignment, the Contractor shall seal the joint using a water-proof sealer at no cost to the Department. The Contractor shall recommend a sealant and installation procedure to the Engineer for approval before proceeding. If the offset for the longitudinal joint varies from a straight line more than 3 inches in 50 feet on tangent alignment, or from a true arc more than 3 inches in 50 feet on curved alignment, the Engineer may reject the paving. The Engineer will not require offsetting layers when adjoining lanes are paved in echelon and the rolling of both lanes occurs within 15 minutes after laydown.

The Contractor shall have a certified Asphalt Field Level II Technician present during all paving operations. Immediately after placement and screeding, the surface and edges of each layer shall be inspected by the Asphalt Field Level II Technician to ensure compliance with the asphalt placement requirements and be straightedged to verify uniformity and smoothness. The Asphalt Field Level II Technician shall make any corrections to the placement operations, if necessary, prior to compaction.. The finished pavement shall be uniform and free of irregularities. If irregularities, including but not limited to segregation or flushing, are identified during the paving operation, the Contractor shall immediately notify the Engineer and address the irregularities with corrective action. If the irregularities continue, the Contractor shall cease the paving operation and not resume until corrective measures have been approved by the Department. When irregularities are noted, the limits of the finished mat shall be determined by the Engineer. The limits of the deficient area of the finished mat shall be removed and replaced at no cost to the Department.

The Contractor’s Asphalt Field Level II Technician shall be present during all density testing.

Asphalt concrete placement shall be as continuous as possible and shall be scheduled such that the interruption occurring at the completion of each day’s work shall not detrimentally affect the partially completed work. Material that cannot be spread and finished in daylight shall not be dispatched from the plant unless the Engineer approves the use of artificial lighting. When paving is performed at night, the Contractor shall provide sufficient light to properly perform and thoroughly inspect every phase of the operation. Such phases include cleaning planed surfaces, applying tack, paving, compacting, and testing. Lighting shall be provided and positioned so as to not create a blinding hazard to the traveling public.

The Contractor shall ensure that the roller does not pass over the end of freshly placed material during the compaction of asphalt concrete except when a transverse construction joint is to be formed. Edges of pavement shall be finished true and uniform.

Asphalt concrete SUPERPAVE pavement courses shall be placed in layers not exceeding five times the Nominal Maximum Aggregate Size (NMAS) in the asphalt concrete. The maximum thickness may be reduced if the mixture cannot be adequately placed in a single lift and compacted to the required uniform density and smoothness. The minimum thickness for a pavement course shall be no less than 2.5 times the NMAS of the asphalt concrete. The NMAS for each mix shall be defined as one sieve size larger than the first sieve to retain more than 10 percent aggregate as shown in the design range specified in Section 211.03, Table II-13. The Contractor may place base courses in irregularly shaped areas of pavement such as transitions, turn lanes, crossovers, and entrances in a single lift.

The Contractor shall square up overlays in excess of 220 pounds per square yard or lanes with a milled depth greater than 2 inches prior to opening to traffic.

The Contractor shall cut drainage outlets through the shoulder at locations the Engineer designates, excluding curb and gutter sections, on the milled roadway areas that are to be opened to traffic. Plan and prosecute the milling operation to avoid trapping water on the roadway and restore drainage outlets to original grade once paving operations are completed, unless otherwise directed by the Engineer. The cost for cutting and restoring the drainage slots in the roadway shoulder shall be included in the price bid for other items of work.

The Contractor shall plan and prosecute a schedule of operations so that milled roadways shall be overlaid with asphalt concrete as soon as possible. In no instance shall the time lapse exceed 14 days after the milling operations, unless otherwise specified in Section 515 or other provisions in the contract. The Contractor shall keep milled areas of the roadway free of irregularities and obstructions that may create a hazard or annoyance to traffic in accordance with Section 104.

The Contractor shall use a short ski or shoe to match the grade of the newly overlaid adjacent travel lane on primary, interstate, and designated secondary routes. Unless otherwise directed by the Engineer, a 24-foot minimum automatic grade control ski shall be used on asphalt mixtures on divided highways, with the exception of overlays that are less than full width and the first course of asphalt base mixtures over aggregate subbases. Care shall be exercised when working along curb and gutter sections to provide a uniform grade and joint.

The Contractor shall construct the final riding surface to tie into the existing surface by an approved method, which shall include the cutting of a notch into the existing pavement. In addition to notching, the Contractor may use an asphalt mix design containing a fine-graded mix to achieve a smooth transition from the new asphalt concrete overlay to the existing pavement, with the approval of the Engineer. The material shall be of a type to ensure that raveling will not occur. The cost for constructing tie-ins in the asphalt concrete overlay shall be included in the asphalt concrete contract unit price.

Prior to application of tack coat and commencement of paving operations if, in the opinion of the Engineer, the existing pavement surface condition may detrimentally affect or prevent the bond of the new overlay, the Contractor shall clean the existing pavement surface of all accumulated dust, mud, or other debris. At no point shall soil, aggregate, or other potential bond breaker material be stored on the pavement surface, unless otherwise approved by the Engineer. If the Contractor wishes to stockpile materials on the pavement surface, the Contractor shall provide documentation to the Engineer for approval on the means and methods that will be used to ensure it will not detrimentally affect or prevent the bond of the next pavement layer. This includes all base, intermediate and surface asphalt layers.

The Contractor shall ensure the surface remains clean until commencement of, and during, paving operations. The cost for cleaning and surface preparation shall be included in the asphalt concrete contract unit price.

The Contractor shall employ a Material Transfer Vehicle (MTV) during the placement of surface mixes (SM) on all Interstate routes. If equipment within the paving train breaks down, paving shall be discontinued once the material on-site has been placed and no more material shall be shipped from the asphalt plant.

When required in the Contract, a MTV shall be used during the placement of designated asphalt mixes on full lane width applications.

(d) **Compacting:** Immediately after the asphalt mixture is placed, struck off, and surface irregularities are corrected, the mixture shall be thoroughly and uniformly compacted by rolling. Rolling shall be a continuous process, insofar as practicable, and all parts of the pavement shall receive uniform compaction.

The asphalt surface shall be rolled when the mixture is in the proper condition. Rolling shall not cause undue displacement, cracking, or shoving of the placed mixture.

The Contractor shall use the number, weight, and type of rollers sufficient to obtain the required compaction while the mixture is in a workable condition. The sequence of rolling operations and the selection of roller types shall provide the specified pavement density.

Rolling shall begin at the sides of the placement and proceed longitudinally parallel with the center of the pavement, each pass overlapping at least 6 inches, gradually progressing to the crown of the pavement. When abutting a previously placed lane, rolling shall begin at the outside unconfined side and proceed toward the previously placed lane. On superelevated curves, rolling shall begin at the low side and proceed to the high side by overlapping longitudinal passes parallel with the centerline.

The Contractor shall correct displacements occurring as a result of reversing the direction of a roller or other causes at once by the use of rakes or lutes and the addition of fresh mixture when required. Care shall be taken in rolling not to displace or distort the line and grade of the edges of the asphalt mixture. Edges of finished asphalt pavement surfaces shall be true curves or tangents. The Contractor shall correct irregularities in such areas.

The Contractor shall keep the wheels/drums of the rollers properly moistened with water, water mixed with a very small quantity of detergent or other Engineer approved material to prevent adhesion of the mixture to the rollers. The Engineer will not allow the use or presence of excess liquid on the rollers.

The Contractor shall thoroughly compact the mixture along forms, curbs, headers, walls, and other places not accessible to rollers with hot hand tampers, smoothing irons, or mechanical tampers,. On depressed areas, a trench roller or cleated compression strips may be used under the roller to ensure proper compression.

For SM-4.75 mixes, breakdown rolling shall be accomplished with steel wheel rollers with a minimum weight of 10 tons. SM-4.75 mixes shall receive at least three breakdown roller passes before intermediate and finish rolling.

The Contractor shall protect the surface of the compacted course until the material has cooled sufficiently to support normal traffic without marring.

(e) **Density** will be determined in accordance with Method A for all interstate and limited access routes, and for primary and secondary routes with an ADT of at least 2,000 and at least 20 feet in width. Method B will be used for all other routes. Control Strips will not use Method A or B, but will use the methods described in Section 315.05(e)1a.

1. The Contractor shall perform roller pattern and control strip density testing on surface, intermediate, and base courses in accordance with VTM-76. The Contractor shall have a certified Asphalt Field Technician II perform all density testing.

   Density shall be determined with a thin-lift nuclear gauge conforming VTM-81 or from the testing of plugs/cores taken from the roadway where the mixture was placed. Density test locations shall be marked and labeled in accordance with VTM-76. When acceptance testing is performed with a nuclear gauge, the Contractor shall have had the gauge calibrated within the previous 12 months by an approved calibration service. In addition, the Contractor shall maintain documentation of such calibration service for the 12-month period from the date of the calibration service. The required density of the compacted course shall not be less than 98.0 percent or more than 102.0 percent of the target control strip density.

   Nuclear density roller pattern and control strip density testing shall be performed on asphalt concrete overlays placed directly on surface treatment roadways and when overlays are placed at an application rate less than 125 pounds per square yard, based on 110 pounds per square yard

per inch, on any surface. In these situations, the Engineer will not require sawed plugs or core samples and the minimum control strip density of 92.5 of TMD will not be required. The required density of the compacted course shall not be less than 98.0 percent or more than 102.0 percent of the target control strip.

The Engineer will divide the project into “control strips” and “test sections” for the purpose of defining areas represented by each series of tests.

a. **Control Strip:** Control strips shall be constructed in accordance with these specifications and VTM-76.

The term *control strip density* is defined as the average of 10 determinations selected at stratified random locations within the control strip.

The Contractor shall construct one control strip at the beginning of work on each roadway and shoulder course and on each lift of each course. The Engineer will require the Contractor to construct an additional control strip whenever a change is made in the type or source of materials; whenever a significant change occurs in the composition of the material being placed from the same source; or when there is a failing test strip. During the evaluation of the initial control strip, the Contractor may continue paving operations, however, paving and production shall be discontinued during construction and evaluation of any additional control strips. If two consecutive control strips fail, subsequent paving operations shall not begin or shall cease until the Contractor recommends correctives actions to the Engineer and the Engineer approves the Contractor proceeding with the corrective action(s). If the Contractor and the Engineer mutually agree that the required density cannot be obtained because of the condition of the existing pavement structure, the target control strip density shall be determined from the roller pattern that achieves the optimum density and this target control strip density shall be used on the remainder of the roadway that exhibits similar pavement conditions.

Either the Engineer or the Contractor may initiate the construction of an additional control strip at any time.

The length of the control strip shall be approximately 300 feet and the width shall not be less than 6 feet. On the first day of construction or beginning of a new course, the control strip shall be started between 500 and 1,000 feet from the beginning of the paving operation. The Contractor shall construct the control strip using the same paving, rolling equipment, procedures, and thickness as shall be used for the remainder of the course being placed.

The Contractor’s Asphalt Field Level II Technician shall take one reading at each of 10 stratified random locations. No determination shall be made within 12 inches of the edge of any application width for surface and intermediate mixes or within 18 inches of the edge of any application width for base mixes. The average of these 10 determinations shall be the control strip density recorded to the nearest 0.1 pound per cubic foot. The minimum control strip density shall be determined in accordance with VTM-76.

The control strip shall be considered a lot. If the control strip density conforms to the requirements of 92.5% of TMD for surface, intermediate and base mix, the Engineer will consider the control strip to be acceptable and the control strip density shall become the target control strip density.

If the Engineer determines that the control strip requirements of 92.5% of TMD for surface, intermediate and base mix cannot be met due to in-situ pavement conditions, Method ‘B’ will be used for acceptance and payment and density adjustments will be waived.

Otherwise, if the density does not conform to the requirements specified of 92.5% of TMD for surface, intermediate and base mix, the tonnage placed in the control strip and any subsequent paving prior to construction of another control strip will be paid for in accordance with Table III-3. If the control strip density is below 88% TMD, then that tonnage shall be removed from the roadway at no cost to the Department. At the discretion of the Engineer, the material may be accepted at 75% of the contract unit price. The Contractor shall take corrective action(s) to comply with the density requirement of a minimum of 92.5% of TMD.

TABLE III-3
Control Strip Requirement and Payment Schedule for SM, IM and BM mixes

% TMD	% of Payment
Greater than 96.5[1]	95
92.5– 96.5[1]	**100**
90.0-92.4	90
88.0-89.9	80
Less than 88.0	Removal

[1] For Base Mix only, the range for 100% pay shall be 92.5-97.0% of TMD.

b. **Test section (lot):** For the purposes of both Contractor quality control and determining acceptance, the Engineer will consider each day's production as a lot unless the paving length is less than 3,000 linear feet or more than 7,500 linear feet, regardless of the method of acceptance (Method A or B). When paving is less than 3,000 feet, that day's production will be combined with the previous day's production or added to the next day's production to create a lot as described below.

The standard size of a lot will be 5,000 linear feet (five 1,000 foot sublots) of any pass 6 feet or greater made by the paving train for the thickness of the course. If the Engineer approves, the lot size may be increased to 7,500 linear foot lots with five 1,500 foot sublots when the Contractor's normal daily production exceeds 7,000 feet. Pavers traveling in echelon will be considered as two passes. When a partial lot occurs at the end of a day's production or upon completion of the project, the lot size will be redefined as follows:

- If the partial lot contains one or two sublots, the sublots will be added to the previous lot.
- If the partial lot contains three or four sublots, the partial lot will be redefined to be an entire lot.

The Contractor shall test each lot for density by taking a nuclear density gauge reading from two random test sites selected by the Engineer within each sublot. When saw plugs or cores are used to determine acceptance, a single test site will be selected by the Engineer. Test sites will not be located within 12 inches of the edge of any application width for surface and intermediate mixes or within 18 inches of the edge of any application width for base mixes.

The Engineer will compare the average of the sublot density measurements to the target nuclear density, or for plugs and cores, to the target percent of theoretical maximum density achieved on the control strip to determine the acceptability of the lot. The Contractor shall immediately notify the Engineer and institute corrective action if two consecutive sublots produce density results less than 98% or more than 102% of the target control strip density.

Density testing for acceptance will not be performed on areas too thin or irregular to test accurately, such as open-graded friction courses, and wedge-and-leveling courses. Areas that

are difficult to compact due to subgrade support or space limitations, including but not limited to crossovers and gore areas, will be placed in accordance with Section 315.05(e)2.

For purposes of density determination, acceptance, and payment, Main Pavement is defined to include travel lanes, shoulders 6 feet or greater, turn lanes, ramps, and acceleration and deceleration lanes.

(1) Method 'A' (plugs or cores)

Any pay adjustment will only be applied to Main Pavement.

The Contractor shall perform acceptance testing for density for each sublot by obtaining one plug, defined as a sawed 4-inch by 4-inch specimen, or one 4-inch-diameter core, at a single random test site selected by the Engineer. More than one plug or core can be taken if the original sample is damaged.

The sub-lot site shall be marked as described in VTM-76. The bulk specific gravity of the plugs or cores shall be determined in accordance with VTM-6. The density of the plugs or cores shall be determined in accordance with VTM-22, except that the daily Rice values obtained by the contractor for the mix will be used for calculating percent density (instead of using the 5-day running average as noted in VTM-22).

Plugs or cores shall be taken from the pavement during the paving shift and bulked in the presence of the Engineer unless otherwise approved. The Department reserves the right to have the plugs or cores bulked on the project site. In the event of any uncertainty around the bulking procedures or results, the Department further reserves the right to re-bulk the samples. The Contractor will have the right to witness the re-bulking. The Contractor will be responsible for maintaining the cores until approved for disposal by the Department.

The Contractor shall number sublot test sites sequentially per lot, mark these on the pavement, fill them with the paving mixture, and compact them prior to the completion of each day of production.

The Contractor shall clean and straighten any irregular edges before filling and compacting. Liquid tack material shall be applied so it visibly covers all plug or core hole surfaces (sides, bottom, etc.). Asphalt concrete mixture available on the same day of paving, or other permanent patching material as approved by the Engineer, shall be placed into the plug or core hole and compacted with a 10-pound weighted hand tool or greater compactive effort with rollers or other equipment available on-site and approved by the Engineer.

The tonnage of each lot for the pay adjustment will be based on the lot's width and length and the mixture application rate as designated in the Contract or as revised by the Engineer. Payment will be made in accordance with Table III-4A.

TABLE III-4A
Payment Schedule for Method A Lot Densities for SM, IM and BM mixes

% TMD	% of Payment
Greater than 96.5[1]	95

92.5 – 96.5[1]	100
90.0–92.4	90
88.0 – 89.9	80
Less than 88.0	Removal

[1] For Base Mix only, the range for 100% pay shall be 92.5-97.0% TMD.

If a minimum of 80% of each test section lot's core/plug samples is no lower than 92.5% of TMD and the lot average results in 100% payment, then the Engineer will increase the unit bid price for AC mixture by 5%. BM-25.0D+0.4 and BM-25.0D+0.8 shall not be eligible for five percent pay increase. No increase will be applied if core/plug samples are cut outside of the paving shift unless otherwise approved by the Engineer; any applicable density pay reduction from Table III-4A may still apply.

If any sublot(s) are lower than 88.0% of TMD then those sublots shall be removed from the roadway at no cost to the Department. If the lot average is below 88.0% of TMD then that test section shall be removed from the roadway at no cost to the Department.

Longitudinal joints shall also be tested for density using a nuclear density gauge at each test site in the sublot. For surface and intermediate mixes, the edge of the gauge shall be placed within 4 inches of the joint. For base mixes, the edge of the gauge shall be placed within 6 inches of the joint. The Contractor shall not place the gauge over top of the joint. The joint density value shall be recorded. The Contractor shall report to the Engineer and institute corrective action if a single longitudinal joint density reading is less than 95% of the target control strip density. The Engineer will not use the values obtained from the joint readings in payment calculation. The Contractor shall furnish the test data developed during the day's paving to the Engineer by the end of the day's operations.

(2) **Method 'B' (nuclear gauge)**

Any pay adjustment will only be applied to Main Pavement.

The Contractor shall test each lot for density by taking a nuclear density gauge reading from two random test sites selected by the Engineer within each sublot. Test sites will not be located within 12 inches of the edge of any application width for surface and intermediate mixes or within 18 inches of the edge of any application width for base mixes.

The Engineer will compare the average of the sublot density measurements to the target nuclear density, or for cores, to the target percent of theoretical maximum density achieved on the control strip to determine the acceptability of the lot. Once the average density of the lot has been determined, the Engineer will not allow the Contractor to provide additional compaction to raise the average. The Contractor shall immediately institute corrective action if two consecutive sublots produce density results less than 98% or more than 102% of the target control strip density.

Longitudinal joints shall also be tested for density using a nuclear density gauge at each test site in the sublot. For surface and intermediate mixes, the edge of the gauge shall be placed within 4 inches of the joint. For base mixes, the edge of the gauge shall be placed within 6 inches of the joint. The Contractor shall not place the gauge over top of the joint. The joint density value shall be recorded. The Contractor shall report to the Engineer and institute corrective action if a single longitudinal joint density reading is less than 95 percent of the target

control strip density. The Engineer will not use the values obtained from the joint readings in payment calculation. The Contractor shall furnish the test data developed during the day's paving to the Engineer by the end of the day's operations.

The tonnage of each lot for the pay adjustment will be based on the lot's width and length and the mixture application rate as designated in the Contract or as revised by the Engineer. Payment will be made in accordance with the requirements of Table III-4B.

TABLE III-4B

Payment Schedule for Method B Lot Densities

% of Target Control Strip Density	% of Payment
Greater than 102.0	95
98.0 to 102.0	100
97.0 to less than 98.0	95
96.0 to less than 97.0	90
Less than 96.0, but (% of Target Control Strip Density x %TMD control strip cores) > 88%	75
Less than 96.0, and (% of Target Control Strip Density x %TMD control strip cores) ≤ 88%	Removal[1]

1. If any lot produces density results less than 96.0% of Target, and (%of Target Control Strip Density x % TMD control strip cores) ≤ 88%, then that lot shall be removed from the roadway at no cost to the Department.

(3) **Verification, Sampling, and Testing (VST)**

The Engineer at any time on any project may perform lot density verification testing regardless of whether Method A or B is being used for density acceptance. Lot density verification is performed by testing plugs or cores. The Contractor shall be responsible for taking plugs or cores for testing. The Engineer will perform verification testing of the plugs or cores.

On surface, intermediate, and base mixes, the Contractor shall take two plugs or cores per VST lot at locations selected by the Engineer. If the Engineer determines the density of the plugs or cores does not conform to the requirements for the lot in question or the same payment percentage determined by the Contractor's testing for that lot, then the Contractor may request additional sampling to be invoked. The Contractor shall take one additional plug or core from the remaining sublots. Payment for that lot, based on the results of the initial two plugs or cores or referee procedure, will be in accordance with the Table III-4A for Method A on the basis of the percentage of the theoretical maximum density or Table III-4B for Method B on the basis of the percentage of the control strip bulk density achieved.

2. **Surface, intermediate, and base courses** not having a sufficient quantity of material to run a roller pattern and control strip, and unique sections defined on the Plans or within the Contract that are 3500 feet or less and at least 6 feet in width shall be compacted to a minimum density of 92.5 percent as determined in accordance with VTM-22. The Contractor shall be responsible for cutting cores or sawing plugs for testing by the Department. One plug or core shall be obtained within the first 500 feet of small quantity paving and every 1000 feet thereafter for testing by the Department. Plug or core locations shall be randomly selected by the Engineer. If the density is determined to be less than the minimum, the Engineer will make payment in accordance with Table III-5.

TABLE III-5
Payment Schedule for Surface, Intermediate and Base Courses (Not sufficient quantity to perform density roller pattern and control strip)

% TMD	% of Payment
Greater than or equal to 92.5	100
90.0-92.4	90
88.0-89.9	80
Less than 88.0	Removal[1]

1. Removal shall be at no cost to the Department.

Any section in which a mixture (e.g., SM-9.0) is being placed at an application rate of less than 125 pounds per square yard (based on 110 pounds per square yard per inch) that does not have a sufficient quantity of material for a roller pattern and control strip shall be compacted by rolling a minimum of three passes with a minimum 8-ton roller. The Engineer will not require density testing.

For asphalt patching or paving widths narrower than 6 feet in width, the minimum density of 91.5 percent of the maximum theoretical density will be determined in accordance with VTM-22. The Contractor is responsible for cutting cores or sawing plugs. One set of cores or plugs shall be obtained within the first 20 tons of material and every 100 tons thereafter for testing by the Contractor or the Department. The Engineer will randomly select plug or core locations. If the density is less than the 91.5 percent, payment will be made on the tonnage within the 20 or 100 ton lot in accordance with Table III-6.

TABLE III-6
Payment Schedule for Surface, Intermediate and Base Courses (Asphalt Patching)

% TMD	% of Payment
Greater than or equal to 91.5	100
90.0-91.4	95
88. 1-89.9	90
Less than or equal to 88.0	Removal[1]

1. Removal shall be at no cost to the Department.

(f) **Joints:** Transverse joints shall be formed by cutting back on the previous run to expose the full depth of the course. A coat of asphalt shall be applied to contact surfaces of transverse joints just before additional mixture is placed against the previously rolled material.

Joints adjacent to curbs, gutters, or adjoining pavement shall be formed by hand placing sufficient mixture to fill any space left uncovered by the paver. The joint shall then be set up with rakes or lutes to a height sufficient to receive full compression under the rollers.

(g) **Rumble Strips:** This work shall consist of constructing rumble strips or rumble stripes on mainline shoulders or centerlines of highways by cutting concave depressions into existing asphalt concrete surfaces as shown on the Standards Drawings and as directed by the Engineer. Rumble stripes are defined as edgeline or centerline rumble strips with permanent longitudinal pavement markings subsequently installed within the rumble strip grooves.

Rumble strips and rumble stripes shall be installed in accordance with the RS-Series Standard Drawings. The Contractor shall demonstrate to the Engineer the ability to achieve the desired surface regarding alignment, consistency, and conformity with these Specifications and the Standard Drawings

before beginning production work on mainline shoulders or centerlines. The test site shall be approximately 25 feet longitudinally at a location mutually agreed upon by the Contractor and Engineer.

Pavement markings for rumble stripes shall be applied after the grooves have been cut. The grooves shall be thoroughly cleaned and the surface prepared before pavement marking application, in accordance with the Standard Drawings and Section 704. Overspray of pavement marking materials shall not extend more than one inch beyond the lateral position of the pavement marking line shown in the RS-Series Standard Drawings.

Rumble strips shall not be installed on shoulders of bridge decks, in acceleration or deceleration lanes, on surface drainage structures, or in other areas identified by the Engineer.

Waste material resulting from the operation shall be removed from the paved surface and shall be disposed of in accordance with Section 106.04.

(h) **Saw-Cut Asphalt Pavement:** This work shall consist of saw-cutting the existing asphalt pavement to a depth as shown on the plans or as directed by the Engineer.

(i) **Coating designed surface cuts**: Designed Surface Cuts are roadway features installed by cutting or grinding into a road surface, for example, Rumble strips, rumble stripes, and plastic inlaid marker grooves.

Designed Surface Cuts shall be coated with liquid asphalt coating (emulsion) when the Designed Surface Cuts are being cut into an existing asphalt surface (i.e. more than one year since placement); when new Designed Surface Cuts are being cut into the pavement surface in conjunction with a surface treatment, latex emulsion, or slurry seal pavement operation; or when the proposed plant mix surface is less than one inch deep.

Liquid asphalt coating (emulsion) shall not be used when Designed Surface Cuts are being cut into new pavement, or being cut in conjunction with plant mix paving operations where the proposed plant mix surface is one inch or greater in depth.

When liquid asphalt coating (emulsion) is required, the Contractor shall coat the entire rumble strip area with the liquid asphalt coating (emulsion) using a pressure distributor following the cutting and cleaning of the depressions of waste material. For rumble strips installed on the shoulder, the approximate application rate shall be 0.1 gallons per square yard. For centerline rumble stripes and plastic inlaid marker grooves, the approximate application rate shall be 0.05 gallons per square yard. The application temperature shall be between 160 degrees F and 180 degrees F. For shoulder rumble strips and plastic inlaid marker grooves, overspray shall not extend more than 2 inches beyond the width of the cut depressions and shall not come in contact with pavement markings.

If liquid asphalt coating (emulsion) is applied before installation of the plastic inlaid marker, then the bottom of the plunge cut shall be protected during liquid asphalt coating (emulsion) application so as to avoid inhibiting the ability of the marker epoxy to bond to the bottom of the plunge cut. If the liquid asphalt coating (emulsion) is applied after the plastic inlaid marker has been installed, then the retroreflector shall be protected during the liquid asphalt coating (emulsion) application to prevent the coating material from dirtying or damaging the retroreflector, with the protection removed after the coating has been completed.

315.06 – Pavement Samples

The Contractor shall cut samples from the compacted pavement for depth and density testing. Samples shall be taken for the full depth of the course at the locations selected by the Engineer. The removed pavement shall be replaced with new mixture and refinished. No additional compensation will be allowed for furnishing test samples and reconstructing areas from which they were taken.

315.07—Pavement Tolerances

(a) **Surface Tolerance:** The Engineer will test the pavement surface by using a 10-foot straight-edge. The variation of the surface from the testing edge of the straightedge between any two contacts with the surface shall not be more than 1/4 inch. The Contractor shall correct humps and depressions exceeding the specified tolerance or the defective work shall be removed and replaced with new material.

(b) **Finished Grade Tolerance:** Finished grade elevations shall be within +/–0.04 foot of the elevations indicated in the plans after placement of the final pavement layer unless otherwise specified, provided the actual cross slope does not vary more than 0.20 percent from the design cross slope indicated in the plans, and the plan depth thickness conforms to the thickness tolerances specified herein.

If the Engineer determines either the finished grade elevations or cross slope exceed the specified tolerances, the Contractor shall submit a corrective action plan to the Engineer for approval.

(c) **Thickness Tolerance:** The thickness of the base course will be determined by the measurement of cores as described in VTM-32.

Acceptance of asphalt concrete base course for depth will be based on the mean result of measurements of samples taken from each lot of material placed. A lot of material is defined as the quantity being tested for acceptance except that the maximum lot size will be 1 mile of 24-foot-width base course.

A lot will be considered acceptable for depth if the mean result of the tests is within the following tolerance of the plan depth for the number of tests taken:

Plan Depth	1 test	2 tests	3 tests	4 tests
≤4”	0.6”	0.5”	0.4”	0.3”
>4” ≤8”	0.9”	0.7”	0.5”	0.4”
>8”≤12”	1”	0.9”	0.7”	0.5”
>12”	1.2”	1”	0.8”	0.6”

If an individual depth test exceeds the one test tolerance for the specified plan depth, the Engineer will exclude that portion of the lot represented by the test from the lot. If an individual test result indicates that the depth of material represented by the test is more than the tolerance for one test, the Contractor will not be paid for that material in excess of the tolerance throughout the length and width represented by the test. If an individual test result indicates that the depth of the material represented by the test is deficient by more than the one test tolerance for the plan depth, the Contractor shall correct the base course represented by the test as specified hereinafter.

If the mean depth, based on two or more tests, of a lot of material is excessive (more than the plan depth specified in the contract), the Engineer will not pay the Contractor for any material in excess of the tolerance throughout the length and width of the lots represented by the tests.

If the mean depth, based on two or more tests, of a lot of material is deficient (less than the plan depth specified in the contract) by more than the allowable tolerance, the Contractor will be paid for the quantity of material that has been placed in the lot. Any required corrective action will be determined by the Engineer.

For excessive depth base courses, the rate of deduction from the tonnage allowed for payment as base course will be calculated at a weight of 115 pounds per square yard per inch of depth in excess of the tolerance. For sections of base course that are deficient in depth by more than the one test tolerance and less than two and half times the one test tolerance, the Contractor shall furnish and place material specified for the subsequent course to bring the base course depth within the tolerance. This material will be measured on the basis of tonnage actually placed, determined from weigh tickets, and will be paid for at the contract unit price for the base course material. Such material shall be placed in a separate course. If the deficiency is more than two and half times the one test tolerance, the Contractor shall furnish and place base course material to bring the base course thickness within the tolerance. Corrections for deficient base course depth shall be made in a manner to provide a finished pavement that is smooth and uniform. Sections requiring significant grade adjustments which have been previously identified and documented by the Engineer as being outside of the control of the Contractor will be exempt from deduction or corrective action.

When the Contract provides for the construction or reconstruction of the entire pavement structure, the surface and intermediate courses shall be placed at the rate of application shown on the plans within an allowable tolerance of ±5 percent of the specified application rate for application rates of 100 pounds per square yard or greater and within 5 pounds per square yard for application rates of less than 100 pounds per square yard. The Engineer will deduct the amount of material exceeding the allowable tolerance from the quantities eligible for payment.

When the Contract provides for the placement of surface or intermediate courses over existing pavement, over pavements constructed between combination curb and gutter, or in the construction or reconstruction of shoulders, such courses shall be placed at the approximate rate of application as shown on the plans. However, the specified rate of application shall be altered where necessary to produce the required riding quality.

315.08 – Measurement and Payment

Asphalt concrete base will be measured in tons and will be paid for at the contract unit price per ton. This price shall include preparing and shaping the subgrade or subbase, constructing and finishing shoulders and ditches, and removing and replacing unstable subgrade or subbase.

Asphalt concrete will be measured in tons and will be paid for at the contract unit price per ton. Net weight information shall be furnished with each load of material delivered in accordance with Section 211. Batch weights will not be permitted as a method of measurement unless the Contractor's plant is equipped in accordance with Section 211, in which case the cumulative weight of the batches will be used for payment.

Asphalt used in the mixtures, when a pay item, will be measured in tons in accordance with Section 109.01 except that transporting vehicles shall be tare weighed prior to each load. The weight will be adjusted in accordance with the percentage of asphalt indicated by laboratory extractions.

Tack coat, when a pay item, will be measured and paid for in accordance with Section 310 of the Specifications. When not a pay item, it shall be included in the price for other appropriate pay items.

Asphalt curb backup material will be measured in tons and will be paid for at the contract unit price per ton. This price shall include placing, tamping, and compacting.

Liquid Asphalt Cement, when a pay item, will be measured in tons in accordance with Section 109.01 except that transporting vehicles shall be tare weighed before each load. When used in the mixture, the weight will be adjusted in accordance with the percentage of asphalt indicated by laboratory extractions.

Warm Mix Asphalt (WMA) additive or process will not be measured for separate payment, the cost of which, shall be included in the contract unit prices of other appropriate items.

Rumble strips will be measured in linear feet and will be paid for at the contract unit price per linear foot of mainline pavement or shoulder where the rumble strips are actually placed and accepted, excluding the test site. This distance will be measured longitudinally along the center line of pavement (mainline) or edge of pavement (shoulders) with deductions for bridge decks, acceleration/deceleration lanes, surface drainage structures, and other sections where the rumble strips were not installed. This price shall include installing, cleaning up debris and disposing of waste material. The test site will not be measured for payment but shall be included in the unit price for rumble strip.

Liquid asphalt coating will be measured in square yards and will be paid for at the Contract square yard price. This price shall include cleaning Designed Surface Cuts before application of the coating, furnishing and applying coating, and protection of all retroreflectors.

Saw-cut asphalt concrete pavement will be measured in linear feet for the depth specified and will be paid for at the contract unit price per linear foot, which price shall be full compensation for saw-cutting the asphalt pavement to the depth specified, cleaning up debris and disposal of waste material.

These prices for asphalt shall also include heat stabilization additive(s), furnishing samples, and maintaining traffic.

Patching will be paid for at the contract unit price for the various items used unless a reconditioning item is included in the Contract.

Payment will be made under:

Pay Item	Pay Unit
Asphalt concrete base course (Type)	Ton
Asphalt concrete (Type)	Ton
Asphalt concrete curb backup material	Ton
Liquid asphalt cement	Ton
Liquid asphalt coating	Square yard
Rumble Strip Standard)	Linear foot
Saw-cut asphalt concrete (depth)	Linear foot

SS317-002020-01 June 21, 2024

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 317 – STONE MATRIX ASPHALT CONCRETE PLACEMENT

SECTION 317 – STONE MATRIX ASPHALT CONCRETE PLACEMENT of the Specifications is amended as follows:

Section 317.08– Compaction is replaced by the following:

Immediately after the mixture has been spread and struck off, it shall be thoroughly and uniformly compacted by rolling. Rolling shall be accomplished with steel wheel roller(s) with a minimum weight of 10 tons. A minimum of three rollers shall be available at all times for compaction and/or finish rolling.

The Contractor shall approach the use of vibratory rollers on SMA with caution to minimize coarse aggregate fracture/breakage in the aggregate skeleton of SMA mixes. If the Contractor elects to use a vibratory roller, the mat shall receive not more than three vibratory passes. The Contractor shall use the roller only on the highest frequency and lowest amplitude setting.

It shall be the Contractor's responsibility to adjust the rolling procedures to provide the specified pavement density. Rollers shall move at a uniform speed. Rolling shall be continued until all roller marks are eliminated and the minimum density has been obtained. The Contractor shall monitor density during the compaction process by use of nuclear density gages to ensure that the minimum required compaction is being obtained. During the trial section, the Department will randomly select 3 plug or core locations to determine the in-place density according to VTM-22.

The Contractor shall keep the wheels of the rollers properly moistened with water that has been mixed with very small quantities of detergent or other approved additives to prevent adhesion of the mixture to the rollers.

For the purposes of evaluating and determining acceptance, each day's production shall be considered a lot unless the paving length is less than 3,000 linear feet or greater than 7,500 linear feet. When paving is less than 3,000 feet, that day's production amount shall be combined with the previous day's production or added to the next day's production to create a lot as described below.

The standard size of a lot shall be 5,000 linear feet, with 1,000 foot sublots, of any pass 6 feet or greater for the specified thickness of the course. The Engineer may approve an increase in the lot size to 7,500 linear foot lots with 1,500 foot sublots when the normal daily production is in excess of 7,000 feet. Pavers traveling in echelon will be considered as two passes. When a partial lot occurs at the end of a day's production or upon completion of the project, the lot size shall be redefined as follows:

- If the partial lot contains one or two sublots, the sublots will be added to the previous lot.
- If the partial lot contains three or four sublots, the partial lot will be redefined to be an entire lot.

The Contractor shall perform acceptance testing for density for each sublot by obtaining one sawed 4 inch by 4 inch specimen, or one 4-inch-diameter cores, at a single random test site specified by the Engineer. Test sites shall not be located within 12 inches of the edge of any application width for surface and intermediate mixes.

- The sub-lot site shall be marked as described in VTM-76.
- The bulk specific gravity of the cores shall be determined in accordance with VTM-6.
- The density of the cores shall be determined in accordance with VTM-22.

The Contractor shall bulk the cores or plugs in the presence of the Engineer. The cores or plugs may be bulked on the project site. Sublot test sites shall be numbered sequentially per lot, marked on the pavement, filled with the paving mixture, and compacted prior to completion of each day's production.

If any sublots are lower than 90.0% of TMD, those sublots shall be removed from the roadway and replaced at no additional cost to the Department.

The payment for lot density will be in accordance with the following schedule:

Payment Schedule

% Density Achieved	% of Payment
More than 98.0	97
94.0 to 98.0	100
92.0 to 93.9	85
90.0 to 91.9	65
Less than 90.0	Remove and replace

SS318-002020-01 August 2, 2023

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 318 – PAVEMENT INTERLAYERS

SECTION 318 – PAVEMENT INTERLAYERS of the Specifications is amended as follows:

Section 318.03(c) – Overlapping of Adjacent Interlayer Rolls is replaced by the following:

Overlapping of Adjacent Interlayer Rolls: Adjacent interlayer rolls shall be overlapped, seamed, or fastened per the manufacturer's instructions; however, those instructions shall not supersede the requirements below.

1. When selecting roll sizes of interlayer products, and particularly when selecting the roll width, the lane width and any additional width needed for longitudinal overlap shall be considered.

2. When the size of the roll is less than that of the installation, then overlapping of the material will be required and the following will apply:

a. Overlaps are not allowed in the wheel path and/or under the construction joint;
b. Minimum overlaps shall not be less than 2 inches (50 mm), and
c. All longitudinal and transverse overlaps shall receive a second tack coat between the fabric overlaps.

Each of the requirements applies unless otherwise approved by the Engineer.

Section 318.03(e) – Bond Strength is inserted as follows:

Bond Strength: The Contractor shall ensure an adequate bond is made between the existing surface, interlayer, and the new overlay. The referee system for bond strength according to Section 310.03(c) is applicable for pavement interlayer placement.

SS319-002020-02 March 18, 2024

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 319 – THIN HOT MIX ASPHALT CONCRETE OVERLAY

SECTION 319 – THIN HOT MIX ASPHALT CONCRETE OVERLAY of the Specifications is amended as follows:

319.01 – Description

This work shall consist of the production and placement of a Thin Hot-Mix Asphalt Concrete Overlay (THMACO) according to the Plans, Specifications, and as directed by the Engineer.

319.02 – Materials

(a) **Asphalt** binder shall be a performance graded asphalt (PG) 64V-28 conforming to AASHTO M 332 and Section 210 or as designated by the Engineer

(b) **RAP:** Recycled asphalt pavement material will not be permitted.

(c) **Coarse aggregate** shall conform to Section 203 or as directed by the Engineer. Water Absorption when tested according to AASHTO T 85 shall be not exceed 2%. Material retained on the No. 4 sieve and larger sieves shall conform to the following when tested according to ASTM D4791:

Flat & Elongated Ratio	Maximum Content
3:1	25%
5:1	10%

(d) **Fine aggregate** shall conform to Section 202, except for grading, which shall be tested according to AASHTO TP 33 (Method A) with a value of at least 45% and a sand equivalent value of at least 50 when tested according to AASHTO T 176.

(e) **Mineral filler** shall conform to Section 201.

(f) **Fiber additive** when required shall be cellulose or mineral fiber approved by the Engineer based on supplier's certification of properties and documentation of success in similar applications in hot mix asphalt.

(g) **Antistripping additive** shall be used and shall be hydrated lime, a chemical additive from the Department's Approved List No. 7, or a combination of both. The approved chemical additive shall be added at a rate of not less than 0.30% by weight of the total asphalt content of the mixture. The mixture shall produce a tensile strength ratio (TSR) of at least 0.80 for the design and production tests. The TSR shall be determined according to AASHTO T 283, including a freeze-thaw cycle (4-inch specimens compacted with a Marshall Hammer or 3.5 by 6-inch specimens when compacted with a gyratory compactor), except that the 16-hour curing time requirement and the 72 to 96-hour storage period will not be enforced by the Department. Design tests shall use the same materials that are used in the production mix and shall be conducted in a laboratory approved by the Department.

When a chemical additive is used, it shall be added to the asphalt binder prior to the introduction of the asphalt binder into the mix. Any chemical additive or particular concentration of chemical additive found to be harmful to the asphalt concrete or that changes the original asphalt binder performance grade (PG) shall not be used.

(h) **Hydrated lime** shall conform to ASTM C977. Hydrated lime shall be added at a rate of at least 1% by weight of the total dry aggregate.

A separate bin or tank and feeder system shall be provided to store and accurately proportion the dry or slurried lime into the aggregate. The lime and aggregate shall be mixed by pugmill or other Department approved means to achieve a uniform lime coating of the aggregate before entering the drier. If lime is added in dry form, the aggregate shall contain at least 3% free moisture. The Department will not permit the stockpiling of lime treated aggregate.

The feeder system shall be controlled by a proportioning device, which shall be accurate to within ±10 percent of the specified amount. The proportioning device shall have a convenient and accurate means of calibration. A flow indicator or sensor shall be provided with the proportioning device and interlocked with the plant controls, aggregate feed, or weigh system, such that production of the mixture shall be consistently maintained and, if there is a stoppage of the lime feed, interrupted.

The method of introducing and mixing the lime and aggregate shall be subject to approval by the Engineer before beginning production.

319.03 – MIX FORMULA

The Contractor shall submit for the Engineer's approval, a job mix formula within the following design ranges of percent passing each sieve size as noted:

Sieve Size	Percent By Weight Passing Square Mesh Sieves	Production Tolerance (Single Test)
1/2 in	100	-2
3/8 in	85-100	± 5
No.4	25-40	± 4
No.8	19-32	± 4
No.16	15-23	± 3
No. 30	10-18	± 3
No.50	8-13	± 3
No.100	6-10	± 2
No. 200	4-7	± 1

Asphalt Content, %	Production Tolerance (Single Test)
5.0 – 5.5[1]	±0.2

[1]Target asphalt content shall result in a minimum film thickness of 9 microns.

In addition to the job mix submittal, the Contractor shall submit ignition furnace calibration data according to VTM 102 and aggregate property test results prepared by an approved testing laboratory for the aggregate components or aggregate blend.

Job mixes outside the above design range will be considered by the Engineer based on mix performance documented by the supplier to eliminate or minimize flushing or visual deficiencies and may include changes to gradation, asphalt content or the use of fibers. The Engineer may require limited production of less than 300 tons for verification of an acceptable mix, before the Engineer's approval of the job mix.

319.04 – SURFACE PREPARATION

Before beginning paving operations, the existing pavement surface shall be cleaned of all accumulated dust, mud, vegetation or other debris, which may affect the bond of the THMACO by the Contractor.

Pavement cracks or joints 1/4-inch or more in width shall be cleaned and filled with a sealant material conforming to Section 322.04. Quantities and payment will be according to Section 322.

Pavement markers, thermoplastic pavement marking and tape pavement markings shall be removed before beginning paving operations. Pavement irregularities greater than 1 inch in depth shall be filled with a material designated in the Contract or approved by the Engineer. Payment for the material will be according to Section 315.

Utility structures shall be protected and referenced before paving for location and adjustment (when necessary) after paving at no cost to the Department.

319.05 – Tack Coat

Unless otherwise directed in the Contract, two options for placing the tack coat are available.

(a) **Option 1:** A tack coat of asphalt emulsion conforming to Section 210.04 (e) or other emulsion approved by the Engineer shall be applied before placement of the asphalt concrete. The tack coat shall be placed within 10 seconds prior to placing the THMACO unless otherwise directed by the Engineer. At no time should any part of the paving machine come into contact with the tack coat before the overlay is applied. The emulsion shall be uniformly applied with a paver spray bar, except hand spray equipment may be used in areas inaccessible to the paver spray bar as directed by the Engineer; inaccessible areas are exempt from the 10-second criterion. The asphalt emulsion shall be applied at a temperature recommended by the supplier at a starting rate of 0.20 gallons per square yard ±0.02 unless otherwise approved by the Engineer.

(b) **Option 2:** A Hot-Applied Non-Tracking tack coat conforming to Section 310 and listed on Approved List No. 50.1A shall be applied before placement of the THMACO. The tack coat shall be uniformly applied with a spray bar paver or a mechanical distributor, except hand spray equipment may be used in areas inaccessible. The tack coat shall be applied at a temperature recommended by the supplier at a residual rate of 0.12 gallons per square yard ±0.02 unless otherwise approved by the Engineer.

319.06 – Placement of Hot Mix Asphalt

The horizontal alignment of the longitudinal joint in the THMACO shall align overtop the longitudinal joint in the existing pavement as follows:

- when placed over an existing asphalt pavement, the THMACO joint shall be within 1 inch of either side of the existing joint (2 inch allowable variation, total);

- when placed over an existing concrete pavement, the THMACO joint shall be within 1/4 inch of either side of the existing joint (1/2 inch allowable variation, total).

The application rate of the THMACO shall be a minimum of 80 pounds per square yard and shall have a thickness of between 3/4-inch and 1-inch compacted lift thickness.

THMACO shall be placed by a paver designed for the placement of thin lifts as designated in the Contract. The THMACOshall be delivered to the paver hopper at a temperature of 315°F ±15°F measured in the paver hopper. The paver shall be capable of placing the THMACO at a speed of 30 feet per minute. When the base temperature is 50°F or above, placement of the asphalt concrete wearing course will be permitted.

319.07 – Compaction

Two steel double drum rollers weighing no less than 10 tons shall perform compaction of the THMACO. No less than two passes shall be completed before the surface temperature of the THMACO has reached 185°F.

319.08 – Acceptance

The Contractor shall perform gradation and asphalt binder content tests on one sample taken in a random manner approved by the Engineer from each 500 tons of production. The material will be considered acceptable for gradation and asphalt binder content, if the results obtained are within the tolerance allowed from the job mix formula in the above table. Material represented by test results outside the tolerance may be removed and replaced with acceptable material by the Contractor at no additional cost to the Department at the discretion of the Engineer.

Should visual examination by the Engineer reveal that the material in any load, or portion of the paved roadway is contaminated, segregated, or flushed with asphaltbinder, that load, or portion of the paved roadway may be rejected without additional sampling of the material.

319.09 – Warranty

The Contractor shall provide a one-year warranty from the date of final acceptance on all THMACO surfaces. The Department will periodically monitor the overlay surface installed throughout the warranty period for compliance and acceptability. The Contractor shall repair any area that fails before the end of the warranty period and shall do so within 14 days after Department notification unless otherwise directed by the Department. Failure of the THMACO surface is defined as either: the loss of adhesion of the material to the underlying layer resulting in a pothole greater than 1 square foot of area (delamination); or being flushedwith asphalt binder in greater than 1 square yard of area, either from within the mix or from the underlying tack (flushing). The Engineer shall notify the Contractor of the date for the warranty inspection at the end of the warranty period and the Contractor shall be present at the inspection.

319.10 – Measurement and Payment

Thin hot mix asphalt concrete will be measured in tons and paid for at the contract unit price per ton, which shall include warranty, tack coat, surface preparation (except crack and joint sealing), all materials, additives, labor and equipment as described herein to install and complete the work.

Crack and joint sealing will be paid according to Section 322.

Payment will be made under:

Pay Item	Pay Unit
Thin Hot Mix Asphalt Concrete	Ton

SS321-002020-02 May 4, 2023

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 321 – TRENCH WIDENING

SECTION 321 – TRENCH WIDENING of the Specifications is amended as follows:

321.01 – **Description**

This work shall consist of installing asphalt concrete mixtures into a constructed trench to widen shoulders and travel lanes up to but not including the surface mix in accordance with the Plans and Specifications and as directed by the Engineer.

321.02 – Material

(f) **Materials** shall conform to Section 211.02 and 315.02.

(g) **Trench widening material** IM-19.0A shall be used for IM-19.0A(T) and IM-19.0D shall be used for IM-19.0D(T). Where BM-25.0(T) is designated, either BM-25.0A or BM-25.0D shall be used by the Contractor.

321.03 – Placement Limitations

The Contractor shall not place asphalt concrete mixtures when weather or surface conditions are such that the material cannot be properly handled, finished, or compacted. The surface upon which asphalt concrete mixtures is to be placed shall be free of standing water, dirt, and mud and the base temperature shall conform to Section 315.04.

321.04 – Procedure

(a) **Trench Widening Route Types:** The minimum lift density as determined according to VTM-22 is based on the type of trench widening as defined below and specified in the Contract. Where trench widening is 2 feet in width, compaction may be performed with small single drum walk-behind rollers or other mechanical means acceptable to the Engineer.

1. **Type 1: Paved Shoulder Only** shall be installed on routes where the widening will serve as a paved shoulder and will not be subjected to constant traffic. The painted edge line will not be on the trench widening. The minimum density requirement will not be enforced and plugs/cores are not required for this type of trench widening. Steel double drum rollers weighing at least 8 tons shall perform compaction of the asphalt concrete. At least five passes shall be completed.

2. **Type 2: Widened Travel Lane and Paved Shoulder** shall be installed on routes where the widening will serve as a wider travel lane and paved shoulder that will be subjected to traffic. The widening will not include removal of existing travel lane pavement, i.e., inside the edge line marking. The painted edge line will be on the trench widening. The minimum density applies to this type of trench widening.

3. **Type 3: Repaired Travel Lane and Paved Shoulder** shall be used on routes where the widening will include a portion of the existing travel lane, serve as a paved shoulder and will be subjected to traffic as a part of the travel lane. The widening will include removal of existing pavement, i.e., inside the edge line marking. The painted edge line will be on the trench widening. The minimum density applies to this type of trench widening.

(b) Trench widening routes shall be widened by trenching on one or both sides of the existing roadway and placing Trench Widening Material in accordance with the width and depth specified for that route.

The depth of the base course will be determined by the measurement of cores as described in VTM-32 and 315.07(c), unless otherwise approved by the Engineer.Any remaining material, after final grading, shall be classified as excess material, and will be disposed of according to Section 106.04 of the Specifications or as directed by the Engineer.

The trench shall be shaped to have vertical sides with the width, depth and type specified in the Contract (2-foot minimum to 6-foot maximum width); be free of excess material; and shall be tacked against the existing pavement side before Trench Widening Material is placed.

The Contractor shall ensure that disruption to driveways, entrances, mailboxes, and intersections are minimized and that precautions are taken to ensure that roadway drainage does not pond on the roadway surface.

321.05 - Acceptance

Where density requirements apply, the Contractor is responsible for cutting cores or sawing plugs for density testing. One plug or core per course of material shall be obtained within the first 500 feet and every 2,500 feet thereafter of the trench widening route for testing by the Contractor or the Department. Core and plug locations shall be randomly selected within each section. If the density achieved is less than 91.5% of the maximum theoretical density for the Type 2 or 3 trench widening routes, payment adjustment will be made on the actual tonnage within the 500- or 2,500-foot lot according to Table III-6 in Section 315.

321.06- Measurement and Payment

Asphalt Concrete Type BM-25.0(T), IM-19.0A(T) or IM-19.0D(T) will be measured in tons and will be paid for at the Contract ton price. This price shall include furnishing and placing the Trench Widening Material, trenching, tack, grading and disposing of excess material.

Payment will be made under:

Pay Item	Pay Unit
Asphalt Concrete Type BM-25.0(T)	Ton
Asphalt Concrete Type IM-19.0A(T)	Ton
Asphalt Concrete Type IM-19.0D(T)	Ton

SS407-002020-02 November 1, 2022

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 407 – STEEL AND OTHER METAL STRUCTURES

SECTION 407 – STEEL AND OTHER METAL STRUCTURES of the Specifications is amended as follows:

Section 407.04 – Fabrication Procedures is amended by replacing the seventh, eighth, and ninth paragraphs with the following:

The Contractor shall furnish a complete mill analysis showing chemical and physical results from each heat of steel for all units prior to fabrication. Before cutting, pieces of steel other than steel conforming to ASTM A709, Grade 36, that are to be cut to smaller-sized pieces shall be legibly marked with the ASTM A6 specification identification color code or the material specification designation. The identification color code of the latest system adopted under ASTM A6 shall be used to identify material. Any markings that indicate direction of roll shall be transferred to each new piece before cutting the new piece from the larger plate.

If requested by the Engineer, the Contractor shall furnish an affidavit from the fabricator certifying that the fabricator has marked and maintained the identification of steel in accordance with these specifications throughout the fabrication operation.

Section 407.06(c) – Assembly of Structural Connections Using High-Strength Bolts is amended by replacing the first paragraph with the following:

Assembly of Structural Connections Using High-Strength Bolts: Field connections shall be made with high-strength bolts 7/8-inch in diameter fabricated in accordance with ASTM F3125, Grade A325 unless otherwise specified. The Engineer will give consideration to the substitution of adequately designed welded connections if requested in writing by the Contractor.

Section 407.06(c)1 – Bolts, nuts, and washers is replaced with the following:

Bolts, nuts, and washers: Bolts, nuts, and washers shall conform to Section 226 and shall each be from one manufacturer on any one structure unless otherwise approved by the Engineer. In addition, each bolt, nut, and washer combination, when installed, shall be from the same rotational-capacity lot. Prior to installation, the Contractor shall perform a field rotational-capacity test on two nut, bolt, and washer assemblies for each diameter and length in accordance with VTM 135. Bolts fabricated in accordance with ASTM F3125, Grade A490 and galvanized bolts fabricated in accordance with ASTM F3125, Grade A325 shall not be reused. Retightening previously tightened bolts, which may have been loosened by the tightening of adjacent bolts, shall not be considered a reuse. Other bolts may be reused only if approved by the Engineer. Threads of plain (uncoated) bolts shall be oily to the touch when installed. Galvanized nuts shall be lubricated by lubricant containing a visible dye. Threads of weathered or rusted bolts shall be cleaned of loose rust, scale, and debris and relubricated. Lubricant shall be as recommended by the fastener manufacturer.

Section 407.06(c)3 – Installation is amended by replacing the second paragraph with the following:

When bolts fabricated in accordance with ASTM F3125, Grade A490 are used with steel having yield points less than 40 kips per square inch, hardened washers shall be installed under the nut and bolt head.

Section 407.06(c)3 – Installation is amended by replacing the eighth paragraph with the following:

The required minimum bolt tension is equal to 70% of specified minimum tensile strengths of bolts rounded to the nearest kip as specified in ASTM F3125 for Grades A325 and A490. *Snug tight* is

defined as the tightness attained when a power wrench begins to impact solidly or when the bolts are firmly hand tightened with a spud wrench such that the complete area of the connecting surfaces are brought into firm contact with each other. Snug tightening shall progress systematically from the most rigid part of the connection to the free edges, and then the bolts of the connection shall be retightened in a similar systematic manner as necessary until all bolts are simultaneously snug tight and the connection is fully compacted.

Section 407.06(c)3b – Direct Tension Indicators (DTI) is amended by replacing the first paragraph with the following:

Direct Tension Indicators (DTI): Direct tension indicator washers shall be used for all high strength bolts, and installation shall be in accordance with Section 407.06(c)3; however, the indicator washer shall not be considered a substitute for the required hardened washer under the turned element. The indicator washer may be considered a substitute for the hardened washer required under the unturned element when bolts conforming to ASTM F3125, Grade A490 are used with steel conforming to ASTM A709, Grade 36. Direct tension-indicator washers shall not be painted or coated with any epoxy or similar material prior to installation. The normal installation shall consist of the load indicator washer being placed under the unturned bolt head or unturned nut. However, if conditions require installation under the turned bolt portion, a hardened flat washer or nut face washer shall be fitted against the tension-indicating protrusions. Tension-indicating washers shall not be substituted for the hardened washers required with short-slotted or oversized holes but may be used in conjunction with them.

Table IV-3 – Bolt Tension is replaced with the following:

TABLE IV-3
Bolt Tension

	Required Min. Bolt Tension (lb.)	
Bolt Size	**Grade A325 Bolts**	**Grade A490 Bolts**
1/2	12,000	15,000
5/8	19,000	24,000
3/4	28,000	35,000
7/8	39,000	49,000
1	51,000	64,000
1 1/8	56,000	80,000
1 1/4	71,000	102,000
1 3/8	85,000	121,000
1 1/2	103,000	148,000

Section 407.06(i) – Finishing is amended by replacing the third paragraph with the following:

Areas of weathering steel that are designated to be painted shall be cleaned and coated in accordance with Section 411.

SS411-002020-01 November 1, 2022

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 411 – PROTECTIVE COATING OF METAL IN STRUCTURES

SECTION 411 – PROTECTIVE COATING OF METAL IN STRUCTURES of the Specifications is amended as follows:

Section 411.06(a) – Shop Coating is amended by inserting the following after the fourth paragraph:

> Areas of weathering steel that are designated to be painted shall be thoroughly cleaned to no less than 6 inches outside the designated area and coated with an approved System B, Group I coating system.

SS512-002020-03 July 1, 2022

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 512 – MAINTAINING TRAFFIC

SECTION 512 – MAINTAINING TRAFFIC of the Specifications is amended as follows:

Section 512.02(f) – Temporary (Construction) signs is replaced with the following:

Temporary (Construction) signs shall have retroreflective sign sheeting in accordance with Sections 247 and 701.

Sign substrates for rigid temporary signs and temporary overlay panels shall be fabricated of either aluminum at least 0.080-inches thick, conforming to Section 229.02(a); 0.4-inch-thick corrugated polypropylene; 0.4-inch-thick corrugated polyethylene plastic; or 0.079-inch-thick aluminum/plastic laminate as approved by the Engineer. Sign substrates shall be smooth, flat, and free of metal burrs or splinters.

Sign substrate materials for signs mounted on drums, Type 3 barricades, and portable sign stands shall be as specified below and shall be the same material that was used when the device was approved in accordance with National Cooperative Highway Research Program (NCHRP) Report 350 or MASH.

Sign Substrates for Type 3 Barricades and Portable Sign Stands
Rollup sign
0.4 inch thick corrugated polypropylene or polyethylene plastic
0.079 inch thick aluminum/plastic laminate

Sign Substrates for Drums
0.4 inch thick corrugated polypropylene or polyethylene plastic

Section 512.03 – Procedures is amended by replacing the sixth and seventh paragraphs with the following:

The Contractor shall correct ineffective or unacceptable work zone traffic control devices immediately unless allowed otherwise by the Contract.

The color of Automated Flagger Assistance Device trailers, arrow board trailers, portable traffic control signal trailers, ITS trailer equipment, and portable changeable message sign trailers and sign frames shall be either Virginia highway orange (DuPont Color No. LF74279 AT or color equivalent) or federal yellow. The back traffic facing trailer frame, where the signal and brake lights are located, shall be fully covered with 2 inch high retroreflective sheeting conforming to Section 247.02(c). The sheeting shall have alternating 11 inch wide vertical red stripes and 7 inch wide vertical white stripes.

The Contractor shall locate, remove, and dispose of all existing asphalt-embedded Snowplowable Raised Pavement Marker (SRPM) castings which lie within a travel lane that has been shifted during construction for three months or longer. The cavity left by the removal of the existing marker shall be cleaned of debris, filled with an approved mix design for resurfacing or material found on the Department's Approved List 78, and compacted before shifting traffic.

Section 512.03(a) – Temporary Signs is replaced with the following:

Temporary Signs: The Contractor shall furnish, install, remove, relocate, and maintain temporary signs and sign panels necessary for prosecution of the work which shall include but not be limited

to, maintenance of traffic, off project detour signs, and begin and end of road work signs for construction, maintenance, permit, utility, and incident management activities. Installation shall be in accordance with Section 701. The Contractor shall also furnish and install those signs not listed in the *VWAPM,* the MUTCD, or the Contract (such as “Turn Lane Open with arrow” and “Grooved Pavement Ahead”) that may be required by the Engineer.

Signs shall be fabricated in accordance with the MUTCD, VWAPM, the FHWA Standard Highway Signs and Markings book (including its Supplement), and the Virginia Standard Highway Signs book. If the Contractor proposes a sign message not included in the Plans, VWAPM, or MUTCD, then the Contractor shall submit a sign fabrication detail to the Engineer for approval before fabrication. The sign fabrication detail shall include sign size, legend, font, legend dimensions, radius, border, margins, sheeting type, and colors.

The Contractor shall relocate, cover, uncover, remove, and reinstall existing signs that conflict with the signs needed for maintenance of traffic. Covering of existing signs shall be accomplished in accordance with Section 701.03(d).

The Contractor shall ensure an unrestricted view of sign messages. The Contractor shall furnish and install flags for temporary signs, as directed by the Engineer; however flags will not be required for use on portable sign supports.

Sign location, lateral placement, and mounting height shall conform to the *VWAPM,* the *MUTCD,* the Contract, and as directed by the Engineer. The Contractor shall furnish all sign supports and hardware for use with temporary signs.

When the sign sequence is not provided in the plans, either by illustration or reference to a typical traffic control figure in the VWAPM, the Contractor shall submit a sketch of his proposed sign sequencing and positioning to the Engineer for approval before installation.

Temporary signs shall be mounted using wooden post supports, square tube sign post supports, or portable sign stands, except where noted otherwise on the Plans. Portable sign stands shall not be used longer than three consecutive days (72 continuous hours). Wooden and square tube post installations shall be in accordance with Standard Drawing WSP-1.

Portable sign stands manufactured on or before December 31, 2019 may be used if they are in good working condition, conform to NCHRP Report 350 Test Level 3 or MASH, and are a product shown on the Traffic Control Device Pre-Approval list. Portable sign stands manufactured after December 31, 2019 shall conform to MASH and shall be a product shown on the Department’s Approved List for MASH Approved Products. The Contractor shall submit a certification letter stating the brands and models of portable sign stands to be used along with a copy of the certification letters indicating compliance with NCHRP Report 350 Test Level 3 or MASH. Portable sign stands shall support a 20 square foot sign in sustained winds of 50 mph or wind gusts of passing vehicles without tipping over, walking, or rotating more than ±5 degrees about its vertical axis.

Portable sign stands shall include decals, stenciling, or some other durable marking system that indicates the manufacturer and model number of the stands. Such marking shall be of sufficient size so it is clearly legible to a person in a standing position.

The Contractor shall erect, maintain, move, and be responsible for the security of sign panels and shall ensure an unrestricted view of sign messages for the safety of traffic.

Section 512.03(g)2b(1) – **Drums** is replaced with the following:

Drums shall be round or partially round; made from plastic; have a minimum height of 36 inches; have a cross-sectional width no less than 18 inches in any direction; have a closed top; and shall conform to the VWAPM. Drums shall be designed to allow for separation of ballast and drum upon vehicular impact but not from wind and vacuum created by passing vehicles. The base of the unit height shall not exceed 5 inches. Two-piece drums may have a flared drum foundation, a collar not exceeding 5 inches in height and be of suitable shape and weight to provide stable support. One-piece drums that comply with these requirements may be used.

The Contrctor shall furnish and install signs (Stop, Chevron, keep Right, etc.) for drums when directed by Engineer. Signs used on drums shall be tested for conformance with NCHRP 350, Test Level 3, and/or MASH requirements and shall be made of the same material used in the test. The Contractor may use other materilas allowed by the FHWA acceptance letter when approved by the Engineer.

Section 512.03(g)2b(3) – Direction indicator barricades is deleted.

Section 512.03(h) –Traffic Barrier Service is replaced with the following:

Traffic Barrier Service shall be of sufficient length to provide anchorage and protection of traffic and personnel in work areas.

The Contractor shall begin continuous progressive prosecution of the work protected by the barrier once the barrier is in place until its completion. If the Contractor ceases to continuously prosecute such work, the Engineer may cause the Contractor to discontinue operations in other areas on the project and concentrate work efforts behind the traffic barrier service until that work is completed. The Contractor shall remove the traffic barrier service when the Engineer determines work is completed to the extent that traffic barrier service is no longer required.

While performing work activities, workers and equipment shall remain behind the protection of the traffic barrier service except as approved by the Engineer. Work outside traffic barrier service protection shall only proceed under the protection and direction of approved traffic control devices or flagger service to safeguard workers and traffic in advance of and at the point the traffic barrier service is opened for ingress or egress adjacent to the travel lane. The Engineer will not permit any equipment extending into an open travel lane.

Barrier openings for access to the work area may be provided only along tangent sections or along curved sections on the inside of traffic and shall be limited to the minimum length required for equipment access. The Contractor shall delineate and maintain normal pavement alignment at the barrier opening with Type D pavement marking.

At ingress openings, the exposed end of the barrier service shall be provided with a temporary impact attenuator approved by the Engineer. At egress openings, the exposed end shall be transitioned at a rate that complies with the VWAPM. For speeds below 30 mph, the transition flare rate shall be the same as that indicated for 30 mph. An impact attenuator will not be required at the exposed end of egress openings in barrier service provided the deflection angle between the pavement edge and the ends of the barrier service openings is 20 degrees or more.

Repairs to traffic barrier service shall match existing barrier so that positive connections can be maintained.

Delineators and barrier panels shall have reflectorized sheeting conforming to Section 247, shall be from the Department’s Approved List 23, and shall be installed on traffic barrier service in accordance with the VWAPM.

The Contractor shall maintain the structural integrity of the barrier and its alignment while it is in use and shall maintain any associated warning lights, barrier delineators, barrier panels, and other devices in functional, clean and visible conditions at all times.

1. **Guardrail barrier service and terminal treatments** shall be installed in accordance with Section 505 except that the offset distance shall be as specified by the Engineer. The Contractor may be permitted to reuse guardrail or its hardware used for traffic barrier service guardrail for permanent installation provided the guardrail material is acceptable to the Engineer and conforms to Section 505 and the Standard Drawings for such guardrail. Marred galvanized surfaces shall be repaired in accordance with Section 233. Terminal treatments shall be permanently identified with a device specific Manufacturers' identification number by stamping or marking with a durable weather resistant material in accordance with § 33.2-274.1 of the Code of Virginia.

2. **Traffic barrier service** (concrete or longitudinal steel) shall be installed in accordance with the Plans and Standard Drawings or as directed by the Engineer, who will design according to Appendix A of the VWAPM. When traffic barrier ends at guardrail, fixed object attachment methods for construction zone shall be used to connect the barrier to the guardrail. Installation shall include additional guardrail posts and attachments as required. The traffic barrier, at a minimum, shall be tapered with the end of the barrier located behind the adjacent guardrail post in accordance with the VWAPM. Barrier connections shall be snug to prevent motion between sections.

   Traffic barrier service used as a parapet shall be anchored as shown on the Plans or Section 500 of the Standard Drawings. Anchor holes in bridge decks shall be drilled with a rotary impact drill or other approved equipment that will limit damage to the deck. Anchor holes shall be located to avoid cutting reinforcing steel. Upon removal of the parapet, anchor holes shall be cleaned and filled with Type EP-4 or EP-5 epoxy mortar conforming to Section 243.

   The Department will not permit the use of concrete traffic barrier service for permanent installations on bridge structures.

   Traffic barrier service sections manufactured on or before December 31, 2019 and successfully tested to NCHRP 350 or MASH 2009 may be used until December 31, 2029, if they are in good working condition, and are a product shown on the Department's Approved Lists for NCHRP-350 or MASH Approved Products. Traffic barrier service sections manufactured after December 31, 2019, and all products in use after December 31, 2029, shall conform to MASH 2016 or its successor, and shall be from the Department's Approved List for Provisionally Approved MASH Products. All traffic barrier service runs shall be interlocking barrier of the same design or type.
   The Contractor shall visually inspect all traffic barrier service shipped to a project before placing it in use. Concrete barrier sections shall be structurally sound with no concrete missing along the top, bottom, sides, or end sections of the barrier; no through cracks; and no exposed rebar. The Contractor shall promptly remove any traffic barrier service found by the Contractor or Engineer to be unacceptable due to inadequate structural integrity or functionality and replace the concrete barrier service at no cost to the Department.

   Concrete barrier service shall be cleaned or coated sufficiently to afford good visibility and uniformity of appearance.
   The Engineer will review and must approve the layout and anchorage method for job specific applications before the barrier is authorized for installation.

With the approval of the Engineer, the Contractor may use additional traffic barriers for his convenience but at his own expense.

Section 512.03(i) – Impact Attenuator Service is replaced with the following:

Impact Attenuator Service: The Contractor shall install impact attenuator service at locations shown on the Plans or designated by the Engineer. An object marker for temporary impact attenuator shall be installed on the attenuator according to the details shown in the Standard Drawings. The object marker for impact attenuator service shall have reflective sheeting conforming to Section 247 featuring alternating diagonal black and orange 3 inch stripes sloping downward at an angle of 45 degrees in the direction vehicular traffic is to pass. Impact attenuators shall be permanently identified with a device specific Manufacturers' identification number by stamping or marking with a durable weather resistant material in accordance with § 33.2-274.1 of the Code of Virginia.

Impact Attenuator Service not shown on the Plans may be used at the request of the Contractor for the Contractor's convenience at the Contractor's expense.

All impact attenuator service shall be reviewed and approved by the State Location and Design Engineer before installation.

Impact Attenuators manufactured on or before December 31, 2019 and successfully tested to NCHRP 350 or the MASH 2009 may continue to be used until December 31, 2029. Impact Attenuators manufactured after December 31, 2019 shall meet MASH 2016 and shall be from the Department's Approved List for Provisionally Approved MASH Products.

Section 512.03(j)2c – Equipment is replaced with the following:

12 inch aluminum or polycarbonate traffic signal head sections with backplates mounted in the vertical display arrangement. Signal head sections may be mounted in the horizontal display arrangement when approved by the Engineer. Signal head sections and backplates shall conform to Section 238.

Section 512.03(k) – Temporary (Construction) Pavement Markings is replaced with the following:

Temporary (Construction) Pavement Markings shall be installed at locations shown on the Plans, the *VWAPM,* and as directed by the Engineer. Temporary pavement markings shall conform to Section 704 and be selected from the Department's Approved List 17. Temporary pavement markings are classified as Type A or B (temporary markings), Type D, Class III (removable tape), Type E (non-reflective black removable tape), and Flexible Temporary Pavement Markers (FTPMs).

The Contractor shall install temporary pavement markings in accordance with the manufacturer's recommendations, except that if the manufacturer's recommendation for material thickness and quantity of beads is less than that used when the material was tested by the NTPEP, the minimum product application rates shall conform to the NTPEP approved test rates for the specific marking. The Contractor shall furnish a copy of the manufacturer's installation recommendations, including the NTPEP data for product thickness and glass bead quantities to the Engineer.

The Contractor shall maintain the temporary pavement markings and shall correct any deficient markings by reapplying markings as directed or needed. The Department considers deficient any temporary pavement markings that provide inadequate guidance to motorists due to inadequate retroreflectivity, color qualities, or adherence to the pavement.The Engineer will make a visual nighttime inspection of all temporary pavement markings to identify areas where markings have

inadequate retroreflectivity. Other deficient qualities may be identified by visual inspection at any time.

Markings that no longer adhere to the pavement, and may cause guidance problems for motorists, or are inadequately retroreflective as determined by the Engineer shall be replaced by the Contractor, with the following exceptions:

- Reapplication of skip line temporary pavement markings is not required unless the pavement marking does not adhere or inadequate retroreflectivity qualities are present for at least two consecutive skip lines.

- Reapplication of centerline (except skip lines) or edge line temporary pavement markings is not required unless the pavement marking does not adhere or inadequate retroreflectivity qualities are present for a continuous section of at least 70 feet.

- Reapplication of transverse markings is not required unless the pavement marking does not adhere or inadequate retroreflectivity qualities are present for a continuous section of at least 3 feet.

The Contractor may take retroreflectivity readings to counter visual observations by the Engineer as the basis for replacement of temporary pavement markings. These measurements shall be taken within 48 hours after the Contractor has been notified of the visual determination by the Engineer of deficient markings. The Engineer will grant additional time to the Contractor when inclement weather prevents accurate measurement of the temporary pavement markings.

The Contractor shall brush any form of debris from the marking before taking the retroflectivity readings. Retroflectivity measurements shall be taken in the presence of the Engineer using Contractor furnished equipment conforming to ASTM E1710. A copy of the operating instructions for the reflectometer shall be furnished to the Engineer before taking the measurements. The Contractor shall calibrate and operate the equipment in accordance with the manufacturer's instructions. The photometric quantity to be measured is the coefficient of retroreflected luminance (R_L), which shall be expressed as millicandelas per square foot per footcandle (mcd/sf/fc). Measurements shall be taken at three random locations within each area of markings that are suspected of being inadequately retroreflective. When the length of the questionable visually inspected area is greater than 1 mile, the Contractor shall take measurements at three locations per mile segment or portion thereof. Measurements for all lines shall be taken in the middle of the line horizontally. Measurements for skip lines shall be taken in the middle of their length. Measurements for transverse lines shall be taken outside of the wheel path locations. The Engineer will designate the locations along the line segments where the measurements shall be taken. The Contractor shall make a log of the measurements and their locations and provide a copy to the Engineer. When the average of the three readings for an area is below 100 mcd/sf/fc, the Contractor shall reapply the markings as indicated.

Temporary (construction) pavement markings found in need of reapplication in accordance with these requirements shall be reapplied by the Contractor at no additional cost to the Department, with the following exceptions:

- Type D markings that have been under traffic for more than 180 days and requires reapplication will be paid for at the contract unit price when reapplied, unless the manufacturer's warranty coverage is still applicable.
- Markings damaged by the Department's snow removal or other maintenance and construction operations will be paid for at the contract unit price.

Deficient temporary pavement markings shall be replaced in the time specified in Section 704 for the maximum duration of unmarked roads.

Eradication for reapplication of Type A or B pavement markings is not required if allowed by the marking manufacturer, if the existing marking is well adhered and the total thickness of the existing and reapplied marking combined will not exceed 40 mils. If not well adhered, 90 percent of the existing markings shall be eradicated before reinstallation of the markings.

Existing Type D markings that are deficient (no longer retaining sufficient retroreflectivity) shall be removed before reapplication of new Type D, Class III markings.

1. **Temporary Type A or B pavement markings** shall be used where the roadway is to be resurfaced before changes in the traffic pattern or where pavement is to be demolished and traffic patterns will not change before demolition.

2. **Type D, Class III pavement markings** shall be used on final roadway surfaces or in areas where traffic patterns are subject to change before pavement is resurfaced, unless otherwise specified in the Contract.

   On non-final pavement surfaces, the Contractor may install Type A or B pavement markings when the surface temperature of the pavement is below the manufacturer's minimum application temperature for a Type D pavement marking. In such cases, the Contractor shall select a Type A or B product known to perform the best under those temperature conditions. When a Type A or B pavement marking is used instead of a Type D pavement marking due to the surface temperature being below the manufacturer's minimum application temperature, the Contractor will be paid at the contract unit price for Type D pavement marking. This shall include the Type A or B marking and any necessary eradication of the Type A or B pavement marking.

3. **Type D, Class III contrast pavement markings** shall be used for all longitudinal temporary pavement markings on bridge decks and hydraulic cement concrete riding surfaces if all of the following are met:

   - The road has a speed limit of 45 MPH or greater.
   - The hydraulic cement concrete riding surface in question is at least 200 feet in length.
   - The temporary markings are planned for at least 30 days of use.

   Type D, Class III contrast markings are not required for any markings that are parallel to and within one foot of existing guardrail or other longitudinal barrier.

4. **Type E pavement markings** shall be used to cover existing markings in accordance with paragraph (l) herein.

5. **Flexible Temporary Pavement Markers (FTPMs)** may be used to simulate a temporary pavement marking line on the final surface, as an interim measure until the permanent pavement marking can be installed. FTPMs shall not be used in substitution for lines slated to be in place for more than 30 days.

   FTPMs shall conform to Section 235 and shall consist of products from the Department's Approved List 22. All FTPM's shall be new product. FTPMs are suitable for use up to one year after the date of manufacture when stored in accordance with the manufacturer's recommendations.

   FTPMs shall include a removable material covering the reflective lens to protect the lens from being obscured or damaged during the paving operation.

FTPM spacing shall be as follows:

- When simulating solid lines, the FTPMs shall be placed every 20 feet.
- When simulating double lines, pairs of side-by-side FTPMs shall be placed every 20 feet.
- When simulating broken lines with a 10-foot-skip/30-foot-gap pattern, 3 FTPMs shall be used per skip (5 feet between each FTPM), with a 30-foot gap between simulated skips.
- When simulating dotted lines with a 3-foot skip/9-foot-gap pattern, 2 FTPMs shall be used per skip (3 feet between the two FTPMs), with a 9-foot gap between simulated skips.

FTPMs shall not be used to simulate transverse lines, symbol/message markings, or dotted lines with 2-foot dot/6-foot-gap pattern.

The color of FTPM units and their reflective surfaces shall be the same color (white or yellow) as the temporary pavement markings they are being used in substitution for.
FTPMs shall be installed at the same locations that permanent pavement markings will be installed.

For surface treatment, slurry seal or latex emulsion treatment operations, the appropriate FTPMs with protective covering shall be installed before placing the new treatment. The lens protective covering shall be kept in place during the final surface placement to protect the lens from being obscured or damaged by the paving operation. Upon completion of surface treatment, slurry seal or latex emulsion treatment placement, the Contractor shall remove the protective covering from the reflective lens of the FTPMs before leaving the work site. Failure to remove such covering shall result in the non-payment for that portion type (skip or solid) of temporary pavement marking.

For plant mix operations, the appropriate FTPMs shall be installed on the newly-placed pavement after the pavement is thoroughly compacted and has cooled to the FTPM manufacturer's recommended temperature for installation.

The Contractor shall maintain the FTPMs until the permanent pavement markings are installed. Damaged or missing FTPMs shall be replaced within 24 hours of discovery at the Contractor's expense with new FTPMs of the same manufacturing type, color and model. No more than one FTPM may be damaged or missing out of every skip line or dotted line simulated segment. No two consecutive FTPMs may be damaged or missing on a simulated solid line or double line application, and no more than 30% of the FTPMs may be damaged or missing on any measured 100-foot segment of simulated solid line.

Once applied, FTPMs will be considered for a single use. If a FTPM requires replacement before installation of permanent pavement markings, it shall be properly disposed of and replaced with a new FTPM at no additional cost to the Department.

FTPMs shall be removed and properly disposed of when permanent pavement markings are installed. Used FTPMs removed from the pavement, including all containers, packaging, damaged FTPM's and all other miscellaneous items of waste, shall be appropriately disposed of in accordance with Section 106.04.

Section 512.03(l) – **Eradicating Pavement Markings** is replaced with the following:

Eradicating Pavement Markings: Markings that may conflict with desired traffic movement, as determined by the Engineer, shall be eradicated as soon as practicable: either immediately before the shifting of traffic or immediately thereafter and before the conclusion of the workday during which the traffic shift is made. Work shall be done in accordance with Section 704 except as noted herein.

The Contractor shall perform eradication by grinding, blasting, or a combination thereof. Blasting may be performed using water blasting, sand blasting, hydroblasting (combination of sand and water), or shot blasting. Water blasting and hydroblasting shall be done with equipment that includes a vacuum recovery system and capability to adjust the water pressure.

The Contractor may submit other methods for eradication for the Engineer's approval; however, the Department will not permit obscuring existing pavement markings with black paint or asphalt as a substitute for removal or obliteration. The Contractor shall minimize roadway surface damage when performing the eradication. The Contractor shall repair the pavement if eradication of pavement markings results in damage to or deterioration of the roadway presenting unsafe conditions for motorcyclists, bicyclists, or other road users. Pavement repair, when required, shall be performed using a method approved by the Engineer.

The Contractor shall ensure workers are protected in accordance with Section 107.17 when eradicating pavement markings.

The Contractor shall vacuum or collect the eradication residue (removed markings, debris, and water) during and immediately after the eradication operation. Dust shall be collected during the entire operation. The Contractor shall ensure that no debris enters inlets or waterways.

Eradication residue from the removal of any pavement markings is considered to be a nonhazardous waste material and shall be disposed of in a properly permitted waste disposal facility in accordance with applicable state and federal laws and regulations. The Department does not require Contractor testing of the eradication residue for the eight Resource Conservation Recovery Act metals.

When markings are removed for lane shifts, transitions, or other areas or conditions required in the VWAPM, 100% of the pavement marking shall be removed.

Type E pavement markings may be used to cover existing markings instead of eradication on asphalt concrete surfaces. The Contractor shall use this material to cover markings as indicated in the Plans or as directed by the Engineer. Type E pavement marking shall be applied in accordance with the manufacturer's recommendations. Type E markings shall not be adhered to the pavement for more than 120 days. Type E markings shall not be used on HCC surfaces or bridge decks.

When eradicating symbols and messages, the entire theoretical box bounding the outermost limits of the markings shall be uniformly eradicated.

Eradication of 24" lines shall be considered nonlinear marking eradication.

Section 512.03(m) – Temporary Pavement Markers is renamed **Temporary Raised Pavement Markers** replaced with the following:

Temporary Raised Pavement Markers shall be installed with temporary pavement markings where required by the VWAPM and where directed by the Engineer. Temporary raised pavement markers shall not be used with Type E markings.

Temporary raised pavement markers shall be installed at the spacing required by the VWAPM, and as shown on Standard Drawing PM-8. . The Contractor may install two one-way markers instead of each two-way marker at no additional cost to the Department.

Temporary raised pavement markers shall be installed with a hot applied bitumen adhesive, except epoxy may be used on hydraulic cement concrete roadways and non-final surfaces of asphalt concrete roadways. Pavement damage caused by removing markers shall be repaired in kind by the Contractor at no additional cost to the Department.

The Contractor shall replace damaged, ineffective, or missing temporary raised pavement markers upon notification by the Engineer at no additional cost to the Department. Markers damaged by the Department's snow removal operations or other maintenance and construction operations, however, will be paid for at the contract unit price.

Section 512.03(p) –Temporary Pavement Message and Symbol Markings is replaced with the following:

Temporary Pavement Message and Symbol Markings shall be the color, shape, and size required by the MUTCD, Standard Drawing PM-10, and the Plans. The Contractor shall install message and symbol markings in accordance with MUTCD, Section 704, the VWAPM, and the Standard Drawings.

Temporary pavement message and symbol markings shall be installed and maintained using the material specified on the Plans in accordance with Section 512.03(k).

Pavement message/symbol markings shall be installed at locations shown on the Plans and at locations designated by the Engineer.

Temporary pavement message markings shall be maintained in accordance with Section 512.03(k). Retroreflective measurements conforming to Section 512.03(k) shall be taken out of the wheel path locations. The pavement message/symbol marking shall be replaced when the average of the three readings for the symbol/message is below 100 mcd/sf/fc.

Section 512.03(q) – Type 3 Barricades is replaced as follows:

Type 3 Barricades: Type 3 barricades shall conform to NCHRP Report 350, Test Level 3, or MASH. Type 3 barricades shall be selected from those shown on the Department's Traffic Control Device Pre-Approval List. The Contractor shall provide a certification letter stating the brands and models of Type 3 barricades from the list proposed for the project. Instead of using Type 3 barricades on the listing, the Contractor may use other brands and models, if he submits a copy of the FHWA acceptance letter indicating the proposed substitutes complies with Test Level 3 of NCHRP Report 350 or MASH before use.

Type 3 Barricades shall be installed and ballasted in accordance with the VWAPM.

Section 512.03(r) – Truck-mounted or trailer mounted attenuators is replaced as follows:

Truck-mounted or trailer-mounted attenuators (TMAs): Truck-mounted and trailer-mounted attenuators manufactured on or prior to December 31, 2019 may be used if they are in good working condition, conform to Test Level 3 of NCHRP Report 350 or MASH, and are a product shown on the Department's Approved Lists for NCHRP-350 or MASH Approved Products. TMAs manufactured after December 31, 2019 shall conform to MASH Test Level 3 and shall be a product shown on the Department's Approved List for MASH Approved Products.

The Contractor shall submit catalog cuts/brochures of the TMA and a copy of the certification letter documenting NCHRP 350/MASH compliance of the specific TMA before their use on the project. TMAs shall be permanently identified with a device-specific manufacturers' identification number by stamping or marking with a durable weather resistant material in accordance with § 33.2-274.1 of the Code of Virginia.

The weight of the support vehicle shall be as recommended by the manufacturer of the Truck/ Trailer-mounted attenuator. The Contractor shall provide a copy of the manufacturer's recommendations to the Engineer, a copy of the original weigh ticket for the support vehicle, and a

self-certification letter stating the support vehicle has not been altered since the original weight ticket was issued. The weigh ticket shall contain adequate information to identify the ticket with the applicable support vehicle. A copy of the self-certification and weigh ticket shall be available in the support vehicle at all times and upon request.

Additional weight may be added to the support vehicle to achieve the range recommended by the manufacturer of the Truck/Trailer-mounted attenuator provided the total weight is properly balanced without overloading any one axle, and is within the Gross Vehicle Weight Recommendation of the support vehicle. The added weight shall be securely attached to the support vehicle to prevent movement during an impact or movement of the vehicle. The additional weight and attachment method shall be self-certified by the Contractor and a copy of the self-certification letter shall be with the support vehicle at all times or a final stage manufacturer's certification sticker may be placed on the inside door of the altered vehicle.

The Truck/Trailer-mounted attenuator shall be no less than 72 inches wide and no more than 96 inches wide. There shall be no additional devices such as signs, lights, and flag holders attached to the Truck/Trailer-mounted attenuator except those that were tested on the Truck/Trailer-mounted attenuator and provided by the manufacturer of the Truck/Trailer-mounted attenuator.

The support vehicle shall have at least one vehicle warning light functioning while in operation in accordance with the VWAPM. When allowed by the VWAPM, an electronic arrow operated in the caution mode may be used with the vehicle warning light. When installing and removing lane closures on a multilane roadway as well as when performing mobile operations, the support vehicle shall be equipped with both vehicle warning lights and an arrow board.

The support vehicle shall be operated and parked in accordance with the manufacturer's recommendations.

Limitations: Traffic control devices shall not be installed from or removed to the Truck/Trailer-mounted attenuator support vehicle. When the Truck/Trailer-mounted attenuator is deployed there shall be no unsecured material in the bed of the support vehicle except the additional secured weight or truck-mounted devices such as an arrow board, a changeable message sign, or truck mounted signs. There shall also be no additional devices such as signs, lights, and flag holders attached to the Truck/Trailer-mounted attenuator except those that were tested on the Truck/Trailer-mounted attenuator and provided by the manufacturer of the Truck/Trailer-mounted attenuator.

If the Truck/Trailer-mounted attenuator is impacted, resulting in damage that causes the unit to be ineffective, all work requiring the use of the Truck/Trailer-mounted attenuator shall cease until such time that repairs can be made or the Contractor provides another acceptable unit.

Section 512.03(s) – Portable Changeable Message Signs is amended to replace the second and third paragraphs with the following:

The sign shall be capable of sequentially displaying at least 2 phases of 3 lines of text each with appropriate controls for selection of messages and variable off-on times. Trailer-mounted PCMS shall be capable of displaying 3 lines of 8-character 18-inch text in a single phase, and vehicle-mounted PCMS shall be capable of displaying 3 lines of 8-character 10-inch text in a single phase. Each character module shall at a minimum use a five wide by seven high pixel matrix. The message shall be composed from keyboard entries.

Access to PCMS control mechanisms shall be physically locked at all times when deployed to deter message tampering.

The message shall be legible in any lighting condition. Motorists should be able to read the entire PCMS message twice while traveling at the posted speed.

The sign panel support shall provide for an acceptable roadway viewing height that shall be at least 7 feet from bottom of sign to crown of road.

Section 512.03(w) – Portable Temporary Rumble Strips (PTRS) is replaced as follows:

Portable Temporary Rumble Strip (PTRS):

A PTRS may be made of rubber or recycled rubber. It shall have a recessed, raised or grooved design to prevent movement and hydroplaning. PTRS color shall be in accordance with the VWAPM.

A PTRS shall consist of interlocking or hinged segments of equal length that prevent separation when in use. The combined overall usable length of the PTRS shall be between 10 feet 9 inches and 11 feet. The width of the PTRS shall be 12 to 13 inches. PTRS shall be between 5/8 inch and 1.0 inch in height. The weight of each roadway strip shall be between 100 and 120 pounds. The leading and departing edge taper shall be between 12 and 15 degrees.

Each roadway length of the PTRS shall have either a minimum of one cutout handle in the end of the rumble strip, or an interlocking segment which can be used as a handle for easy deployment or removal.

The manufacturer of the PTRS shall provide a signed affidavit that states the PTRS is able to withstand being run over by an 80,000 pound vehicle and retain its original placement with minor incidental movement of 6 inches or less during an 8 hour deployment. Incidental movement of the PTRS shall be parallel with other rumble strips in an array but shall not move so that its placement compromises the performance and safety of the other rumble strips, workers or the traveling public.

The PTRS shall be installed in accordance with manufacturers installation instructions, without the use of adhesives or fasteners.

PTRS Placement shall be in accordance with the VWAPM.

Section 512.04 – Measurement and Payment is amended to replace the 13th paragraph with the following:

Impact attenuator service will be measured in units of each and will be paid for at the Contract each price for the type specified. This price shall include installing, maintaining, and removing impact attenuator and object marker. Impact attenuators used with barrier openings for equipment access will not be measured for separate payment but the cost thereof shall be included with other appropriate items. When impact attenuator service is moved to a new location, as directed or approved by the Engineer, the relocated terminal will be measured for separate payment. Payment for impact attenuator service will not be made until the work behind the corresponding barrier service is actively pursued.

Section 512.04 – Measurement and Payment is amended to replace the 16th paragraph with the following:

Temporary pavement markings will be measured in linear feet and will be paid for at the contract linear foot price for the type, class and width specified. This price shall include marking materials, glass beads, adhesive, preparing the surface, maintaining, removing removable markings when no longer required, inspections, and testing.

If the Contractor uses FTPMs to simulate the temporary pavement marking, they will be measured in linear feet and paid for at the linear foot price for the temporary marking material being simulated. That measurement shall represent all FTPMs required for that simulated line marking. No additional payment will be made if the Contractor elects to remove FTPMs and install other temporary pavement markings. This cost shall include furnishing, installing and maintaining the FTPMs, removable covers, surface preparation, quality control tests, daily log, guarding devices, removal, and disposal.

Section 512.04 – Measurement and Payment is amended to replace the 21st paragraph with the following:

Eradication of existing nonlinear pavement markings will be measured in square feet based on a theoretical box defined by the outermost limits of the nonlinear pavement markings as defined in Standard Drawing PM-10. Nonlinear pavement markings shall include but not be limited to, arrows, images, symbols, and messages. Eradication of existing nonlinear pavement markings will be paid for at the contract unit price per square foot. This price shall include removing nonlinear pavement markings, cleanup, and disposing of residue.

Section 512.04 – Measurement and Payment is amended to replace the 30th paragraph with the following:

Portable Temporary Rumble Strip (PTRS) Array will be measured in Days per array and will be paid for at the Contract Day price. An Array shall consist of three rumble strips. This price shall include installing, maintaining, removing devices when no longer required, and relocating throughout the day.

Section 512.04 – Measurement and Payment is amended by revising the Pay Item Table as follows:

The following pay items are removed:

Pay Item	Pay Unit
Portable temporary rumble strip	Each

The following pay items are inserted:

Pay Item	Pay Unit
Portable temporary rumble strip array	Day

VIRGINIA DEPARTMENT OF TRANSPORTATION
2020 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS
SECTION 704 – PAVEMENT MARKINGS AND MARKERS

SECTION 704 – PAVEMENT MARKINGS AND MARKERS of the Specifications is amended as follows:

Section 704.02 – Materials is amended to replace the first paragraph with the following:

For Type B, Class VI pavement marking materials that are to be applied to latex emulsion or slurry seal surfaces, the selected Type B, Class VI manufacturer shall be a manufacturer that approves and warranties their product for application on that type of surface.

Section 704.03 – Procedures is amended to replace the second paragraph with the following:

The Contractor shall have a certified Pavement Marking Technician present during all temporary pavement marking, permanent pavement marking, and pavement marker operations, except Flexible Temporary Pavement Marker (FTPM) installation.

Section 704.03 – Procedures is amended to replace the fourth through tenth paragraph with the following:

If the Contractor cannot have permanent pavement markings installed within the time limits specified, the Contractor shall install and maintain temporary pavement markings within the same time limits at no additional cost to the Department until the permanent pavement markings can be installed. Installation, maintenance, and removal or eradication of temporary pavement markings shall be according to Section 512.

The Contractor may mark the locations of proposed permanent markings on the roadway by installing premarking materials. Premarkings may be accomplished by installing removable tape, chalk, or lumber crayons, except pavement markings such as stop lines, crosswalks, messages, hatching, etc., shall be premarked using chalk or lumber crayons. Premarkings for yellow markings may be white or yellow. Premarkings for other colors shall be white.

When tape is used as a premarking material, premarking shall consist of 4- inch by 4-inch-maximum squares or 4-inch-maximum diameter circles spaced at 100-foot minimum intervals in tangent sections and 50-foot minimum intervals in curved sections. At locations where the pavement marking will switch colors (e.g., gore marking) the ends of the markings may be premarked regardless of the spacing.

When the Contractor uses chalk or lumber crayon as a premarking, the entire length of the proposed pavement marking may be premarked.

Premarkings shall be installed so their installation will not affect the adhesion of the permanent pavement markings. When removable tape is used as the premarking material and the lateral location of such premarkings to location of the final pavement markings exceeds 6 inches, the tape shall be removed at no additional cost to the Department.

The Contractor shall exercise caution and protect the public from damage while performing pavement marking operations. The Contractor shall be responsible for the complete preparation of the pavement surface, including, but not limited to, removing dust, dirt, loose particles, oily residues, curing compounds, concrete laitance, residues from eradication, and other foreign matter immediately before installing pavement markings. The pavement surface shall be clean and dry at the time of pavement marking installation and shall be tested in accordance with VTM 94 before permanent installation, with the VTM 94 test results noted on Form C-85. The Contractor shall provide the equipment indicated in VTM 94 that are needed to perform the moisture test before application.

Section 704.03 – Procedures is amended by replacing the thirteenth paragraph with the following:

Non-truck mounted equipment shall be regulated to allow for calibration of the amount and type of material applied.

Section 704.03 – Procedures is amended to replace the eighteenth paragraph with the following:

Glass beads and retroreflective optics shall be applied at the rate specified herein or as specified in the Department's Approved List for the specific pavement marking product. Beads and optics shall be evenly distributed over the entire lateral and longitudinal surface of the marking. The Contractor shall apply beads to the surface of liquid markings with a bead dispenser attached to the applicator that shall uniformly dispense beads simultaneously on and into the just-applied marking. The bead dispenser shall be equipped with a cut-off control synchronized with the applied marking material cut off control so that the beads are applied totally on the marking. Beads shall be applied while the liquid marking is still fluid, resulting in approximately 60% embedment in the marking's surface. Beads installed on crosswalks and stop lines on roadways with curbs only (no gutter) may be hand applied for two feet at the end of each line next to the curb with 100 percent of the beads embedded 50% to 60% into the marking's surface.

Section 704.03(a)1 – Type A markings is replaced with the following:

Type A markings shall be applied in accordance with the manufacturer's installation instructions. When applying atop existing pavement markings, the existing marking shall first be swept or eradicated to the extent necessary to ensure that the surface of the existing marking is clean, chalk free (not powdery), and well adhered.

Glass beads for Type A, Class I markings shall be AASHTO M 247 Type 1 Beads applied at a minimum rate of 6 pounds per gallon of paint

Retroreflective optics for Type A, Class II markings shall be applied as noted in the Department's Approved List 20 for the selected pavement marking product.

The Contractor may substitute Type A, Class I cold weather paint (traffic paint designed for application at temperatures below 40 °F) for Type A, Class I conventional paint at no additional cost to the Department. Cold weather paint shall be from the Department's Approved List 20.

Section 704.03(a)2 – Type B markings is amended to replace the third paragraph with the following:

Non–truck mounted equipment for application of thermoplastic material shall include an extrude die with a burner, temperature controller, agitator, and mechanical bead applicator to allow for the correct amount of material to be applied.

Section 704.03(a)2a – Thermoplastic (Class I) is amended to replace the fourth through sixth paragraphs with the following:

Thermoplastic shall not be applied over existing pavement markings of materials other than paint or thermoplastic, unless the existing marking is 90 percent percent worn away or eradicated. When applying thermoplastic over existing paint or thermoplastic, the existing marking shall first be swept or eradicated to the extent necessary to ensure that the surface of the existing marking is clean, chalk free (not powdery), and well adhered.

Thermoplastic marking material shall be applied at thickness of 90 mils (± 5 mils) above the riding surface, whether dense or open graded surface.

Glass beads and retroreflective optics shall be surface applied at the rate of 10 pounds per 100 square feet unless specified otherwise on the Materials Division's Approved Products List 43 for the specific thermoplastic product.

Section 704.03(a)2b – Preformed thermoplastic (Class II) is amended to replace the first and second paragraphs with the following:

Preformed thermoplastic (Class II) material shall be installed in accordance with the manufacturer's installation instructions. A primer or sealer manufactured by or recommended by the preformed thermoplastic manufacturer shall be applied to all hydraulic cement concrete surfaces and to asphalt concrete surfaces in accordance with the manufacturer's installation instructions.

Preformed thermoplastic shall not be applied over existing pavement markings of materials other than paint or thermoplastic, unless the existing marking is 90 percent worn away or eradicated. When applying preformed thermoplastic over existing paint or thermoplastic, the existing marking shall first be swept or eradicated to the extent necessary to ensure the surface of the existing marking is clean, chalk free (not powdery), and well adhered.

Permanent transverse rumble strips shall be applied using two strips of white Type B, Class II material. The bottom strip shall be 250 mils thick and 4 inches wide, and the top strip shall be 125 mils thick and 2 inches wide (centered atop the bottom strip), unless noted otherwise in the plans. Transverse rumble strips shall be installed in arrays as per the Standard Drawings and the plans.

Section 704.03(b) – Pavement messages and symbols markings is amended to replace the second paragraph with the following:

Surface temperature at time of application shall be in accordance with manufacturer's installation instructions. If the installation instructions do not specify minimum surface temperature, then the markings shall not be installed unless the surface temperature at time of application is 50°F or higher.Surface temperature requirements shall not be considered met if the temperature is forecasted to drop below the minimum within two hours of application. The Contractor may heat the pavement for a short duration to dry the pavement surface and bring the surface temperature to within the allowable temperatures for pavement marking installation, at no extra cost to the Department. Heat torch temperatures shall not exceed 300°F. The Contractor shall monitor pavement temperature to ensure it does not rise above 120°F at any time. Any damage to the pavement shall be promptly repaired at no extra cost to the Department.

Message and symbol markings include, but shall not be limited to, those detailed in Standard Drawing PM-10.

The sizes and shapes of symbols and characters shall match the size and shape specified in Standard Drawing PM-10 or elsewhere in the Contract. Hand-drawn or "stick" symbols or characters will not be allowed.

Table VII-3 is replaced with the following:

TABLE VII-3
Pavement Markings

Type	Class	Name	Film Thickness (mils)	Pavement Surface	Application Limitations	Appr. List No.
A	I	Conventional or Cold-Weather Traffic Paint	15 ± 1 when wet	AC HCC	May be applied directly after paving operations	20
A	II	High Build Traffic Paint	25 ± 2 when wet	AC HCC	May be applied directly after paving operations	20
B	I	Thermoplastic Alkyd	90 ± 5	AC HCC	May be applied directly after paving operations	43
	I	Thermoplastic Hydrocarbon	90 ± 5 when dry	AC HCC	Do not apply less than 30 days after paving operations	43
	II	Preformed Thermoplastic	120-130	AC HCC	Manufacturers installation instructions	73
	III	Epoxy resin	20 ± 1	AC	Manufacturers installation instructions	75

			when wet	HCC		
	IV	Plastic-backed preformed Tape	60 - 120	AC HCC	Manufacturer's installation instructions	17
	VI	Patterned preformed Tape	20 min[1] 65 min[2]	AC HCC	(Note 4)	17
	VII	Polyurea	20 ± 1	AC HCC	Manufacturer's installation instructions	74
D	III	Wet Reflective Removable tape	(Note 3)	AC HCC	Temporary pavement marking	17
E		Removable black tape (Non-Reflective)	(Note 3)	AC	Temporary pavement marking for covering existing markings	17

[1]Thinnest portion of the tape's cross section.
[2]Thickest portion of the tape's cross section.
[3]In accordance with manufacturer's installation instructions.
[4]In accordance with the manufacturer's installation instructions, except that Type B, Class VI markings on new plant mix asphalt surfaces shall be inlaid into the freshly installed asphalt surface and not surface-applied.

Section 704.03(d)1 – Snowplowable raised pavement markers is renamed **Section 704.03(d)1 – Inlaid Pavement Markers** and replaced as follows:

Inlaid Pavement Markers shall be installed with retroreflectors with front-side and back-side colors as per Standard Drawing PM-8.

The Contractor shall not install markers on existing bridge decks. Inlaid Pavement Markers shall be installed on new bridge decks where required by the Plans.

Inlaid Pavement Markers shall be placed in relation to pavement joints and cracks as follows:

- In existing Asphalt Concrete pavement, new or existing Hydraulic Cement Concrete pavement, and bridge decks, the edge of the groove shall be at least 2 inches from pavement joints and cracks, ensuring that the finished line of markers is straight in accordance with the tolerance for pavement markings specified in Section 704.03 of the Specifications. Offset from the longitudinal joint shall take precedence over straightness of the line of markers.

- In new Hydraulic Cement Concrete pavement or when installed in conjunction with new latex modified microsurfacing or slurry seal treatments, the edge of the groove shall be at least 2 inches from all longitudinal and transverse surface course pavement joints and 1 inch maximum off alignment from the corresponding pavement marking line. The finished line of markers shall be straight in accordance with the tolerance for pavement markings specified in Section 704.03 of the Specifications. Straightness of the line of markers and alignment with the corresponding pavement marking line takes precedence over offset from the surface course joint.

Retroreflectors shall be affixed to holders, using an adhesive from the Department's Approved List 22 (Inlaid Pavement Markers) prior to installation.

Inlaid Pavement Markers shall be installed as per Standard Drawing PM-8.

Tapered grooves and plunge cuts shall be cut using diamond blades that can accurately control the groove dimensions, resulting in smooth uniform tapers and smooth groove bottoms and ensuring the pavement does not tear or ravel. The Contractor shall remove all dirt, grease, oil, loose or unsound layers, and any other material from the groove which would reduce the bond of the adhesive. Pavement surfaces shall be maintained in a clean and dry condition until the marker is placed.

Holders shall be installed in the same shift as grooving.

The epoxy adhesive shall be thoroughly mixed until it is uniform in color, and applied in accordance with the manufacturer's installation instructions. The Contractor shall partially fill the plunge cut with sufficient epoxy adhesive such that the epoxy adhesive bed area is equal to the bottom area of the holder. The Contractor shall then set the holder in the epoxy adhesive such that the breakaway tabs are resting on the road surface, the holder is centered in the cut, and then fill in additional epoxy adhesive if necessary so the entire perimeter of the holder is completely surrounded in epoxy, with the epoxy level with the edge of the holder in accordance with the manufacturer instructions.

The Contractor shall remove all adhesive and foreign matter from the face of the retroreflector or replace the retroreflector if adhesive and foreign matter cannot be removed. The marker shall be replaced if it is not properly positioned and adhered in the plunge cut.

Section 704.03(d)2 – Raised Pavement Markers is renamed **Nonplowable Raised Pavement Markers** and is replaced with the following:

Nonplowable raised pavement markers shall be bonded to the surface in accordance with the manufacturer's installation instructions. The bonding material shall be from the Deparment's Approved List 22 for the specific marker.

Section 704.04 – Measurement and Payment is amended to replace the fifth paragraph with the following:

Pavement markers will be measured in units of each for the type specified and will be paid for at the contract unit price per each. This price shall include surface preparation, furnishing, installing, prismatic retroreflectors, pavement cutting, adhesive, holders, quality control tests, and daily log.

Section 704.04—Measurement and Payment is amended by revising the Pay Item Table as follows:

The following pay items are removed:

Pay Item	Pay Unit
Pavement message marking (Message)	Each or Linear Foot

The following pay items are inserted:

Pay Item	Pay Unit
Pavement message marking (Message, Type or class material)	Each or Linear Foot

CITY OF DANVILLE SPECIAL PROVISIONS

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CITY OF DANVILLE, VIRGINIA
SPECIAL PROVISION FOR
CONTRACTOR QUALITY CONTROL (CQC)

September 18, 2024

I. Description

This work shall consist of materials quality control testing, sampling, inspection, and reporting to be provided by the Contractor in accordance with the Contract Documents and this Special Provision. The Contractor shall be solely responsible for the quality and conformity of the work with the Contract Documents.

II. Definitions

1. **Quality Control (QC)** refers to those actions and considerations necessary to assess and adjust production and construction processes so as to ensure conformance with contract requirements and to control the level of quality of the end product. This concept of quality control includes sampling and testing to monitor the process in addition to acceptance sampling and testing.

   The purpose of QC is to measure those quality characteristics and to inspect those activities that affect the production at a time when corrective action can be taken to substantially decrease the likelihood that appreciable non-conforming material will be incorporated in the project.

III. Reference Publications, Standards, and Other Documents

1. VDOT Construction Manual
2. VDOT Materials Manual of Instructions
3. VDOT Locally Administered Projects Manual
4. VDOT Minimum Requirements for Quality Assurance and Quality Control on Design Build and P3 Projects, dated July 2018
5. VDOT Materials Approved Lists
6. Virginia Test Methods (VTM)

IV. General Requirements

1. The Contractor is responsible for Quality Control (QC). The Contractor shall provide all QC Testing and Inspection in accordance with the Contract Documents and as set forth in the attached tables which have been taken from *Minimum Requirements for Quality Assurance and Quality Control on Design Build and P3 Projects*, dated July 2018, a VDOT publication. The Contractor shall be responsible for items listed under the “Contractor/QC Frequency” column in addition to other quality control testing that may be required elsewhere in the Specifications.

2. The Contractor shall be solely responsible for inspecting and accepting materials received at the project site. The City and/or VDOT are not responsible for materials approved at the plant that subsequently become damaged in transit, during handling, while in storage, or damaged by or under any other circumstance. The Contractor shall be responsible to assure all materials are free from damage and acceptable for use prior to incorporating them into the work.

3. The Contractor shall review all submittals, certifications, test reports, subcontractor’s submittals, and other documentation to ensure compliance with the contract requirements and shall provide a copy of all such reviewed documentation signed by the Contractor to the Engineer.

4. The Contractor shall prepare daily reports/logs detailing construction activities, on-site meetings, work locations, labor and equipment used, actual hours worked, subcontractor activities, testing and measurement activities, inspection results, deficiencies observed, corrective actions taken, and other such information as may be required.

5. The Contractor may utilize in-house or subcontracted personnel and/or laboratories for the performance of QC Testing and/or QC Inspection. In any case, all personnel shall be qualified and properly certified for the

materials they are testing or work they are inspecting and laboratories shall be accredited in accordance with the requirements of the VDOT Materials Manual of Instructions.

A. Copies of qualifications and experience of all QC personnel and evidence of approved laboratories shall be submitted to the City for review and approval.

6. The Contractor is required to submit documentation on sources of materials for all materials proposed or contemplated on VDOT Form C-25. No less than two (2) weeks prior to ordering any material, this form shall be submitted to the City by the Contractor and the City and VDOT must provide approval of the source of material.

   A. Materials will be accepted as identified by the City and/or VDOT on Form C-25 and in accordance with the VDOT Materials Manual of Instructions.

7. The Contractor shall inform asphalt and aggregate suppliers that this project will be handled the same way as a VDOT project and requires testing and submission of TL-102A for documentation.

8. Structural steel and metal poles must be fabricated in a shop certified by the American Institute of Steel Construction (AISC) and pre-stressed concrete elements must be fabricated in a shop certified by the Pre-stressed Concrete Institute (PCI). These materials are inspected to AASHTO design specifications and codes based upon the certification level required for the scope of work. These shop inspections are provided by an inspection agency using certified inspectors under contract to VDOT.

9. Where a proposed product or material is not on a VDOT Approved List or has not otherwise been approved in advance by VDOT for use on the project, the Contractor shall notify the Engineer so that a request can be made to VDOT Central Office Materials Division to determine the required review and approval process for the proposed item.

   A. Manufacturer certification that materials meet specifications may also be accepted for some pre-manufactured materials at the City's and VDOT's discretion.

10. Witness and Hold Points

    A. Witness and Hold Points will be established at the Pre-Construction meeting and during the course of the project where notification of the Engineer or the City's Inspector is required to be provided advance notice before proceeding and/or required to be physically present to observe or visually examine a specific work operation or test.

       (1) Witness Points are points which require the Contractor to provide notification to the Engineer. Work may proceed beyond a Witness Point with or without participation by the Engineer or the City's Inspector provided proper notification has been given.

       (2) Hold Points are mandatory verification points beyond which work cannot proceed until mandatory verification is performed and a written release is granted by the Engineer.

    B. The time necessary to respond to the notification for inspection at Hold and Witness Points shall be no less than three (3) business days unless otherwise mutually agreed to by the Engineer and the Contractor.

    C. The Engineer, City's Inspector, and other City and VDOT staff maintain the right to inspect any aspect of the work at any point.

11. Non-Compliance and Non-Conforming Work

    A. Any non-conforming materials discovered through testing will either be rejected or replaced. If nonconforming materials are deemed non-critical within the specifications and/or contract documents, they may be accepted discretion of the Engineer.

    B. If the Engineer discovers or is otherwise notified of non-conforming work, an Internal Non-Conformance Statement (INCS) will be issued to the Contractor's superintendent/foreman by the Engineer or the

Engineer's inspection staff. Conversely, if problems are encountered by Contractor's construction or QC Testing/Inspection personnel, they shall be communicated by the Contractor's superintendent/foreman to the Engineer's inspection staff for recording and forwarding to the Engineer for resolution.

(1) Written INCS reports will be tracked on the Engineer's Inspector's Daily Report (IDR) until work is brought into compliance with the Specifications. If the INCS is not brought into compliance to the Specifications within seven (7) days, or as otherwise stipulated by the Engineer, the INCS will be changed into a Non-Conformance Report (NCR) and placed onto the NCR Log for further tracking until remedied.

(2) An NCR Log will be maintained by the Engineer's Inspection Staff and will include the date the INCS was issued; a brief description of the non-conformance issue; date when INCS become NCR; disposition of the proposed remedial action for the INCS; and final outcome (removal, re-work, substitution, etc.).

(3) The NCR Log will be reviewed during scheduled audits to determine causes of NCRs and provide preventive actions for the future.

(4) If an INCS is of an emergency, safety, or serious environmental nature, an NCR will be issued immediately, and verbal communication will be made to the Contractor's Project Manager.

C. Non-conforming materials or products will be identified by paint markings, tagged and/or destroyed and shall be removed from the project. If material is found damaged during delivery or is otherwise non-compliant before installation, the material shall not be unloaded, will be marked as damaged, and shall be returned to the supplier. Returns will be documented on the shipping lists and the IDR.

D. If materials or finished products are not found to be in strict conformity with the Contract requirements, Engineer will make a final determination as to whether the work can be accepted. In the event that it is accepted, the Engineer's Inspection Staff will document the basis of acceptance and make recommendations regarding any appropriate price adjustments or warranty modifications.

E. Any deficient condition, whether the result of poor workmanship, use of materials containing defects, damage through carelessness, or any other cause, found by, or disclosed to, the Engineer shall be removed and replaced by work and materials which conform to the Construction and Contract Documents or shall be remedied unless otherwise agreed upon by the Engineer. Upon failure on the part of the Contractor to comply promptly with any order to remedy, remove or replace Work which is nonconforming or contains defects, the Engineer will withhold payment not only for that portion of the work in nonconformance, but for that portion of the QC directly related to the issue unless QC fully complied with their duties in relation to the deficient condition.

F. In the event the Engineer finds, as a result of monitoring the quality assurance and quality control activities, that any materials, equipment or the finished product in which materials, equipment or finished product are used are not in conformity with the Construction Documents and Contract requirements, the Engineer may elect in his sole discretion to accept otherwise unacceptable Work at a reduced price. If the Engineer determines that the Work should be accepted, the contractor may initiate a deductive Change Order which will decrease the Contract Price.

G. The absence of notification by the Engineer to the Contractor as described herein shall not constitute the City's acceptance of non-conforming work nor relieve the Contractor's responsibility to repair, remove, and/or replace or otherwise correct non-conforming work.

V. Measurement and Payment

Contractor Quality Control (CQC) will not be measured and paid separately and the cost shall be incidental to the Contract (included in other bid items).

CONTRACTOR QUALITY CONTROL FREQUENCIES

Unless otherwise noted IA/VST/OIA/OVST testing frequencies are relative to QC frequency. QC will be performed in accordance with the requirements of Design Build Manual, Materials Manual of Instruction and Contract Specifications. **A minimum of one (1) test regardless of quantity placed shall be performed unless otherwise noted.** All sampling locations will be selected randomly. VST tests are independent test results taken at independent locations that shall be compared against specification requirements. IA tests include verifying technician certification and procedures, verifying equipment calibration and comparing split sample results against allowable tolerances. OIA and OVST will be performed by a City or VDOT representative.

No.	Material Type	Spec. Section	Test Reference	**CONTRACTOR QC Frequency**	IA Frequency	VST Frequency	OIA Frequency	OVST Frequency
1	**BACKFILL SOILS / SUBGRADE / EMBANKMENT**	106.03; 302.03, 303.04, 305.03; 401.03; Contract Special Provisions						
	Moisture Density Relations – Standard Proctor, Atterberg Limits, Grain Size Analysis & CBR (All Backfill Types and Borrow Sources submittals)	Density control of Embankments and Backfill Sections 106, 302, 303 and 305 of 2020 Road & Bridge Specification Book (2020 R&B)	VTM-1, VTM-7, VTM-8, VTM-25. AASHTO T 99, AASHTO T 89, AASHTO T 90, AASHTO T 87, AASHTO T 27, AASHTO T 85, AASHTO T 193 AASHTO T 265	**One (1) test per soil type and with change in material. Change in material would be a change in the visual USCS soil classification (e.g. CL to CH) The Contractor shall provide borrow source test results as per VDOT 2020 Road and Bridge Specifications Section 106.03**	Verify Lab accreditation of the QC laboratory to AASHTO test methods by looking at AASHTO Re:Source website	Compare all QC borrow submittals against specifications	Verify Lab accreditation of the QC laboratory to AASHTO test methods by looking at AASHTO Re:Source website	Compare one (1) QC borrow submittal against specifications per ten (10) QC borrow submittals

No.	Material Type	Spec. Section	Test Reference	CONTRACTOR QC Frequency	IA Frequency	VST Frequency	OIA Frequency	OVST Frequency
	In-Place Density Tests - Box Culverts, Pipes	VDOT 2020 R&B Sec 302.03	VTM-10	**One (1) test per 100 LF, each lift, alternating sides**	One (1) test per 1000 LF	One (1) test per 1000 LF	System Based IA	One (1) test per 10,000 LF
	Abutments. Retaining Walls (incl. MSE Walls)	VDOT 2020 R&B Sec 401.03		**One (1) test per 150 CY**	One test per 1500 CY	One test per 1500 CY		One test per 15,000 CY
	Drainage Structures	VDOT 2020 R&B Sec 302.03		**One (1) test, every other lift around perimeter after bedding layer**	One (1) test per five (5) drainage structure	One (1) test per drainage structure		One (1) test per ten (10) drainage structures
	Soils/Subgrade	VDOT 2020 R&B Sec 305.03		**One (1) test per 500 LF each lift.**	One (1) test per 5000 LF	One (1) test per 2500 LF		One (1) test per 10,000 LF
	Embankment	VDOT 2020 R&B Sec 303.04		**One (1) test per 500 CY, each lift. The avg. of five (5) nuclear gauge readings comprises one (1) density test**	One (1) test per 5000 CY	One (1) Test per 2500 CY		One (1) test per 10,000 CY
	One point Proctor		VTM-12 (as needed)	**Whenever there is a change in mat'l or compaction equip./method perform one point. If change of 4.5 PCF in one point then a new Std. Proctor shall be performed**				
2	**HYDRAULIC CEMENT CONCRETE (HCC) STRUCTURAL**	VDOT 2020 R&B Section 217						
	HCC Entrained **1. Air Content** **a) Pressure Meter** **b) Volumetric Meter** **2. HCC Slump** **3. HCC Unit Weight** **4. HCC Temp.**		ASTM C1077 ASTM C231 ASTM C173 ASTM C143 ASTM C138 ASTM C1064	**Test every load**	One (1) test per 100 CY	One (1) test per 500 CY	System Based IA	One (1) test per 5000 CY
	HCC Compressive Strength		ASTM C31 / ASTM C39	**One (1) set of three (3) cylinders per 100 CY; minimum one (1) set of three (3) cylinders per day**	One (1) set of three (3) cylinders per 1000 CY	One (1) set of three (3) cylinders per 1000 CY	System based IA	One (1) set of three (3) cylinders per 5000 CY

No.	Material Type	Spec. Section	Test Reference	**CONTRACTOR QC Frequency**	IA Frequency	VST Frequency	OIA Frequency	OVST Frequency
	HCC Chloride Permeability		VTM-112 ASTM C1202	**One (1) set of two (2) cylinders per 100 CY; minimum one (1) set of two (2) cylinders per day**	One (1) set of two (2) cylinders per1000 CY	One (1) set of two (2) cylinders per 1000 CY	System Based IA	One (1) set of two (2) cylinders per 5000 CY
3	**REINFORCING STEEL**	VDOT 2020 R&B Section 223						
	Reinforcing Steel (Non-Corrosion Resistant Bar)	VDOT 2020 R&B Section 223.02(a)1	ASTM A615	**Verify manufacturer's certificates for every shipment for acceptance prior to placement** **Confirm Buy America by looking at mill test report to see steel has been melted and fabricated at a plant in USA**	Verify 10% of the mill certs of the Contractor's QC Confirm Buy America	One (1) sample per manufacturer per most common size per project Test for tensile, yield, elongation and weight per unit length	Verify 10% of the mill certs of the QAM's IA Confirm Buy America by Construction staff	One (1) sample per project. Test for tensile, yield, elongation and weight per unit length
	Corrosion Resistant Bar **1 - Stainless** **2 - Stainless Steel Clad** **3 - Low Carbon/ Chromium**	VDOT 2020 R&B Section 223.02 (e), (f), (g), AASHTO M 334	AASHTO T 375	**Verify manufacturer's certificates for every shipment for acceptance prior to placement** **Confirm Buy America by looking at mill test report to see steel has been melted and fabricated at a plant in USA**	Verify 10% of the mill certs of the Contractor's QC Confirm Buy America	One (1) sample per manufacturer per most common size per project Test for tensile, yield, elongation and weight per unit length Verify the alloy using X-ray Fluorescence (XRF) Spectroscopy, X-ray Diffraction, Atomic Absorption, spark emission, ICP or other approved chemical test for alloy	Verify 10% of the mill certs of the QAM's IA Confirm Buy America by Construction staff	One (1) sample per project. Test for tensile, yield, elongation and weight per unit length Verify the alloy using X-ray Fluorescence (XRF) Spectroscopy, or other approved chemical test for alloy

No.	Material Type	Spec. Section	Test Reference	**CONTRACTOR QC Frequency**	IA Frequency	VST Frequency	OIA Frequency	OVST Frequency
4	**TREATED SUBGRADE / SUBBASE, AGGREGATE BASE MATERIAL, AND CEMENT TREATED AGGREGATE BASE MATERIAL**	VDOT 2020 R&B Sections 306.03, 307.05, 308.04, 309.05						
	Depth Checks		VTM-38B VTM-38A	**One (1) test per 0.5 mile per lane width** **Small quantity not suitable for statistical lots (turn lanes, connections, etc.)**	One (1) test per five (5) miles per lane width	One (1) test per two (2) miles per lane width	System Based IA	One (1) test per five (5) miles per lane width
	In Place Density		VTM-10	**One (1) test per 0.5 miles per lane width** **Average of five (5) nuclear gauge readings comprises one (1) nuclear density test**	One (1) test per five (5) miles per lane width	One (1) test per two (2) miles per lane width, minimum of one (1) test per roadway	System Based IA	One (1) test per five (5) miles per lane width
5	**ASPHALT CONCRETE PLACEMENT**	VDOT 2020 R&B Section 315						
	Pavement Density by Nuclear Method with In Place Pavement **Density by Cores serving the VST function Roadways with less than 5000 vehicles per day.** (Asphalt Pavement) QAM to take possession of QC, IA and VST asphalt cores/plugs taken on project.		VTM-76, VTM-6, VTM-22	**Establish roller pattern, control strips and test sections. Ten (10) stratified random density test sites per test section (5000 LF)**	Observe one (1) control strip per ten (10) control strips established by the QC technician. Reweigh the 3 cores or 6 plugs taken from this control strip Minimum of one (1) control strip per project	Two (2) stratified random cores per 25,000 LF of paver width. Both cores obtained from the same test section Minimum five (5) cores per project	System Based IA	Two (2) stratified random cores per 25,000 LF of paver width. Both cores obtained from the same test section Minimum two (2) cores per project

No.	Material Type	Spec. Section	Test Reference	**CONTRACTOR QC Frequency**	IA Frequency	VST Frequency	OIA Frequency	OVST Frequency
5	**Pavement Density by Nuclear Method with In Place Pavement Density by Cores as the acceptance method.** **Roadways with more than 5000 vehicles per day** (Asphalt Pavement) QAM to take possession of QC, IA and VST cores/plugs taken on project		VTM-76, VTM-6, VTM-22	**Establish roller pattern, control strips and test sections. Ten (10) stratified random nuclear density test sites per test section (5000 LF) plus five (5) stratified random density test sites per test section (5000 LF)**	Observe one (1) control strip per ten (10) control strips established by the QC technician. Reweigh the 3 cores or 6 plugs taken from this control strip Minimum of one (1) control strip per project	Two (2) stratified random cores per 25,000 LF of paver width. Both cores obtained from the same test section Minimum five (5) cores per project	System Based IA	Two (2) stratified random cores per 25,000 LF of paver width. Both cores obtained from the same test section Minimum two (2) cores per project.
	In Place Pavement Density – Distances too short for Control Strip Establishment (Asphalt Pavement)	VDOT 2020 R&B Section 315.05 (e) 2	VTM-6	**One (1) set of two (2) sawn plugs or one (1) core in the first 20 tons and one (1) additional set of two (2) plugs or one (1) core for every 100 tons thereafter**	Obtain and reweigh one (1) random core or set of plugs per ten (10) QC locations Observe one (1) density determination per ten (10) cores weighed by the QC technician	One (1) random core or set of plugs per twenty (20) QC locations Minimum one (1) core or set of plugs per project	System Based IA	One (1) random core or set of plugs per twenty (20) QC locations Minimum one (1) core or set of plugs per project
	Depth Checks by Cores (Asphalt Pavement)		VTM-32	**One (1) core per 0.25 miles per lane width**	Select one (1) QC core per five (5) lots and measure thickness. A minimum of one (1) core per project	Obtain one (1) random core per five (5) lots Minimum of three (3) cores per project	System Based IA	Obtain one (1) random core per five (5) lots Minimum of three (3) cores per project

No.	Material Type	Spec. Section	Test Reference	**CONTRACTOR QC Frequency**	IA Frequency	VST Frequency	OIA Frequency	OVST Frequency
6	**STONE MATRIX ASPHALT PLACEMENT**	VDOT 2020 R&B Section 317						
	In Place **Pavement Density** QAM to take possession of QC, IA and VST asphalt cores/plugs taken on project.		VTM-6, VTM-22	**Establish trial section and** **test sections** **Three (3) stratified random cores or six 6 plugs per trial section** **Five (5) stratified random density tests per test section (5000 LF)**	Observe one (1) trial section per ten (10) trials sections established by the QC technician Reweigh the three (3) cores or six (6) plugs taken from this trial section Minimum of one (1) trial section observed per project and reweighing of cores or plugs from trial section	Two (2) stratified random cores per 25,000 LF of paver width Both cores obtained from the same test section Minimum five (5) cores per project	System Based IA	Two (2) stratified random cores per 25,000 LF of paver width Both cores obtained from the same test section Minimum two (2) cores per project
	Asphalt Tack **applications**		VTM-137	**One (1) tack plate for every** **5000 LF (per lane)**	NA	One (1) tack plate per ten (10) QC tests Minimum one per project	System Based IA	One (1) tack plate per twenty (20) QC tests Minimum one per project
7	**HYDRAULIC CEMENT CONCRETE (HCC) - PAVEMENT**	VDOT 2020 R&B Section 217						
	HCC Entrained **1. Air Content** **a) Pressure Meter** **b) Volumetric Meter** **2. HCC Slump** **3. HCC Unit Weight** **4. HCC Temperature**		ASTM C1077 ASTM C231 ASTM C173 ASTM C143 ASTM C138 ASTM C1064	**Every load**	One (1) test per 5000 CY	One (1) test per 1000 CY	System Based IA	One (1) test per 5000 C

No.	Material Type	Spec. Section	Test Reference	**CONTRACTOR QC Frequency**	IA Frequency	VST Frequency	OIA Frequency	OVST Frequency
	Compressive Strength of Concrete Cylinders (HCC Pavement)		ASTM C31/ ASTM C39	**One (1) set of three (3) cylinders per 250 CY; minimum one (1) set of three (3) cylinders for each days concreting operation**	One (1) set of three (3) cylinders per 5000 CY	One (1) set of three (3) cylinders per 2500 CY	System Based IA	One (1) set of three (3) cylinders per 5000 CY
8	**HYDRAULIC CEMENT CONCRETE (HCC) –** Miscellaneous Items	VDOT 2020 R&B Section 217						
	HCC Entrained **1. Air Content** **a) Pressure Meter** **b) Volumetric Meter** **2. HCC Slump** **3. HCC Unit Weight** **4. HCC Temperature**		ASTM C1077 ASTM C231 ASTM C173 ASTM C143 ASTM C138 ASTM C1064	**One (1) test per load**	One (1) test per 250 CY	One (1) test per 1000 CY	System Based IA	One (1) test per 10,000 CY
	Compressive Strength of Concrete Cylinders (Miscellaneous Items)		ASTM C31/ ASTM C39	**One (1) set of three (3) cylinders per 250 CY; minimum one (1) set of three (3) cylinders per day**	One (1) set of three (3) cylinders per 2500 CY	One (1) set of three (3) cylinders per 12,500 CY	System Based IA	One (1) set of three (3) cylinders per 25,000 CY
9	**PAVEMENT MARKINGS**	VDOT 2020 R&B Section 704						
	Marking and Bead Application Rate		VTM-94	**Perform VTM-94 at start up with periodic checks every three (3) hours of operation**	Review start up calibrations Ensure one plate sample is taken and tested for thickness, width, bead distribution and embedment Retain sample for further testing if needed. Review all of the C85 reports daily to verify calculated quantities match the application rates and confirm that daily measurements were performed as described in VTM- 94 Performed by QAM inspection staff	Randomly select three (3) ten- foot areas at the beginning middle and end of in place sections of markings per day Skip lines and edge lines are considered separately: 1) Inspect PM for correct placement, straightness, edges, thickness, bead distribution and embedment, day and night color and brightness. Inspect structure of tape to insure patterned waffles have not been damaged by roller	Review 5% of the C85 daily reports to verify calculated quantities match the application rates and confirm that daily measurement s were performed as described in VTM-94 Performed by Project staff.	Upon completion of pavement markings installation, perform two (2) OVST tests, consisting of one (1) day and one (1) night time visual inspection (examining the brightness and nighttime color while driving along entire Project) review of the marking installation Performed by District Regional Operations once the markings have all been placed

No.	Material Type	Spec. Section	Test Reference	**CONTRACTOR QC Frequency**	IA Frequency	VST Frequency	OIA Frequency	OVST Frequency
10	**High-Strength Bolts**	VDOT 2020 R&B Section 226						
	"Black" bolts are only used for weathering steel or high-strength A490 bolts Documentation for a nut-bolt-washer (NBW) assembly for black bolts includes a raw material certification called a Mill Test report (MTR) for the bolt, a manufacturer's certification for the bolt which states the manufacture of the bolt was done in the US, a raw material cert (MTR) for the nut, a manufacturer's cert for the nut, a raw material cert (MTR) for the washer, a manufacturer's cert for the washer and a rotational capacity test report for the NBW assembly (7 items) If the bolt assembly requires galvanization, then a cert for the galvanization (coating) of each of the three components is also required (10 items total) Occasionally the manufacturer issues a new cert for a product (e.g. bolt or nut) after it is galvanized, so the package of certs may include more than 10 items if galvanized assemblies are required	A Buy America statement is required for bolts. The Buy America statement must be: "the iron and steel was melted, manufactured and coated in the USA" The Information needed to prove Buy America is provided on the Mill Test Report (MTR). The MTR shows that the steel was melted in USA The manufacturers' certification demonstrates the manufacture process of the bolts, nuts and washers (threading, head stamping and cutting) was performed in USA The galvanization certification shows that the zinc coating was performed in USA	ASTM F606 ASTM A153 VTM-135	**Each nut-bolt-washer (NBW) assembly lot shall be sampled and tested (VTM 135) at a minimum rate of 2 assemblies per NBW lot** **The documentation shall be collected from the bolt supplier and the galvanizer for each lot and supplied along with the samples sent to the QAM. QC personnel shall monitor the storage and conditions of the bolts to insure they remain in good well lubricated condition**	Documentation shall be reviewed to insure all parts are present and that the required tests have been performed by the producers and that the markings match the suppliers The results of the Ro-Cap test by producer and QAM-VST on Ro-Cap test shall be reviewed to insure the material passed the tests	A minimum of 10% of the NBW assembly lots shall be tested 2 assemblies represent a lot for testing One NBW assembly shall be visually inspected and tested for galvanized coating (ASTM A153) coating (if used) The second assembly shall be either rotational capacity tested (Ro-Cap) as per VTM-135 or tested in direct tension in accordance with the wedge test of ASTM F606 The rotational capacity test is performed on bolts up to and including 8 inches long The tension test is performed when bolts are over 8 inches in length	Each Project phase, two of the sampled NBW assemblies representing a lot shall be monitored during QC Rotation capacity testing (VTM 135)	One (1) random sample from the first ten lots shall be sampled and tested for tension, Rotational Capacity and galvanized coating Review the paperwork associated with the lot to verify the origin and physical properties meet the specifications Minimum 2 samples per Project

No.	Material Type	Spec. Section	Test Reference	**CONTRACTOR QC Frequency**	IA Frequency	VST Frequency	OIA Frequency	OVST Frequency
11	**COLD IN- PLACE RECYCLING**	Special Provision						
	Test Strip		Special Provision, Section VIII	**One (1) test strip per Job Mix Formula**	N/A	Compare QC results against Special Provision	N/A	Compare QC results against Special Provision
	Field Compaction: Nuclear Density Gauge (Direct Transmission)		VTM-10, VTM-76	**Two (2) stratified random locations per sub lot**	One (1) test per lot	Two (2) stratified random locations per lot	One (1) test per five (5) lots	One (1) random location per five (5) lots
	Field Compaction: Field Proctor		AASHTO T 180 Method D	**One (1) random location per lot**	One (1) test per five (5) lots	One (1) random location per five (5) lots	One (1) test per five (5) lots	One (1) random location per five (5) lots
	Gradation		AASHTO T 27	**One (1) at start of day's operation (two speeds) and with change in pavement structure**	One (1) test per lot	One (1) random location per lot	One (1) test per five (5) lots	One (1) random location per five (5) lots
	Depth Check		VTM-38, Method B	**Two (2) stratified random locations per lot**	One (1) test per lot	One (1) random location per lot	One (1) test per five (5) lots	One (1) random location per five (5) lots
	Stabilizing Agent Dosage Rate		Calibrated Meter Reading	**Ten (10) readings per lot**	Observe one (1) reading per lot	Observe one (1) reading per lot	Verify calibration	Observe one (1) reading per 5 lots
	In-Place Moisture Content		AASHTO T 329	**Moisture content shall be measured per AASHTO T 329 on samples (immediately placed in sealed plastic bag) taken from two stratified random locations as determined by the Engineer per each production day Other methods and sampling rates may be used if supplied in the Contractor's Quality Control Plan and approved by the Engineer**	One (1) test per production day	One (1) random location per production day	One (1) test per five (5) production days	One (1) random location per five (5) production days

No.	Material Type	Spec. Section	Test Reference	**CONTRACTOR QC Frequency**	IA Frequency	VST Frequency	OIA Frequency	OVST Frequency
12	**CCPRM PLANT**	Special Provision						
	Quality Control Plan		Special Provision, Section IV	**One (1) per project**	N/A	Compare QC Plan against Special Provision	N/A	Compare QC Plan against Special Provision
	Recycling Agent Content		Calibrated Automatic Meter	**Printout of stabilizing agent content percentage/ rate with each gradation One (1) daily summary**	N/A	N/A	Verify calibration	Review each daily summary
	Dry Indirect Tensile Test (Foamed Asphalt)		AASHTO T 283 (Section 11)	**One (1) random sample per 1000 tons per day**	N/A	N/A	One (1) test per five (5) lots	One (1) random sample per lot
	Moisture Content of Stabilized Material			**One (1) test with each asphalt content test**	N/A	N/A	One (1) test per five (5) lots	One (1) random sample per lot
	Marshall Stability (Emulsified Asphalt)		ASTM D5581, AASHTO T 245 AASHTO T 312	**One (1) random sample per 1000 tons per day**	N/A	N/A	One (1) test per five (5) lots	One (1) random sample per lot
	Gradation		AASHTO T27	**Eight (8) stratified random samples per lot**	N/A	N/A	One (1) test per five (5) lots	One (1) random sample per lot
	Asphalt Content Testing		VTM-102	**One (1) random sample per 1000 tons per day**	N/A	N/A	One (1) test per five (5) lots	One (1) random sample per lot
	Expansion Ratio/ Half Life		Wirtgen 2012 Cold Recycling Manual	**Each load of asphalt binder used for foaming**	N/A	N/A	Observe one (1) test per five (5) loads	Review QC reports for each
13	**CCPRM PLACEMENT**	Special Provision						
	Trial Section		Special Provision, Section VI	**One (1) test section per Job Mix Formula**	N/A	Compare QC results against Special Provision	N/A	Compare QC results against Special Provision
	Depth Check		VTM-38 Method B	**Two (2) stratified random locations per lot**	One (1) test per lot	One (1) random location per lot	One (1) test per five (5) lots	One (1) random location per five (5) lots
	Field Compaction: Nuclear Density Gauge (Direct Transmission)		VTM-10, VTM-76	**Two (2) stratified random locations per sub lot**	One (1) test per lot.	Two (2) stratified random locations per lot	One (1) test per five (5) lots	One (1) random location per five (5) lots
	Field Compaction: Field Proctor		AASHTO T 180 Method D	**One (1) random location per lot**	One (1) test per five (5) lots	One (1) random location per five (5) lots	One (1) test per five (5) lots	One (1) random location per five (5) lots

No.	Material Type	Spec. Section	Test Reference	**CONTRACTOR QC Frequency**	IA Frequency	VST Frequency	OIA Frequency	OVST Frequency
	In Place Moisture Content		AASHTO T-329	**Moisture content shall be measured taken from two (2) stratified random locations (immediately placed in a sealed plastic bag) determined by QAM per each production day**	One (1) test per production day	One (1) random location per production day	One (1) test per five (5) production days	One (1) random location per five (5) production days
14	**FULL DEPTH RECLAMATION**	Special Provision						
	Trial Section		Special Provision, Section VIII	**One (1) trial section per Job Mix Formula**	N/A	Compare QC results against Special Provision	N/A	Compare QC results against Special Provision
	Application Rate of Stabilizing Materials		Calibrated Automatic Meter VTM-141	**Ten (10) readings per lot**	Verify calibration	Two (2) plate/tarp tests at stratified random locations per lot, Monitor consistency of layer Plate/tarp/pan shall have area equal to one square yard (3 feet by 3 feet) for collecting and weighing stabilizing agent according to VTM	Verify calibration	One (1) plate/tarp/ test at random location per five (5) lots Plate/tarp/pan shall have area equal to one square yard (3 feet by 3 feet) for collecting and weighing stabilizing agent according to VTM
	Compacted Density (Direct Transmission)		VTM-10	**Two (2) stratified random locations per sub lot**	One (1) test per lot	Two (2) stratified random locations per lot	One (1) test per five (5) lots	One (1) random location per five (5) lots
	Depth Check		VTM-38 Method B	**Two (2) stratified random locations per lot**	One (1) test per lot	One (1) random location per lot	One (1) test per five (5) lots	One (1) random location per five (5) lots
	Gradation		VTM-25	**Two (2) stratified random locations per lot**	One (1) test per five (5) lots	One (1) random location per lot	One (1) test per five (5) lots	One (1) random location per five (5) lots

No.	Material Type	Spec. Section	Test Reference	**CONTRACTOR QC Frequency**	IA Frequency	VST Frequency	OIA Frequency	OVST Frequency
15	**PROTECTIVE COATING OF METAL STRUCTURES**	VDOT 2020 R&B Section 411 (SSPC-PA-2)						
	Monitor surface preparation and check coating thickness			**Take three (3) surface profile measurements per day of blasting** **Five (5) spot measurements (15 individual readings) per day as defined in PA-2 for coating thickness after each layer of applied protective coating at each location.**	Two (2) surface profile measurements per month of blasting One (1) spot measurement (3 individual readings) per week as defined in PA-2 for coating thickness after each layer of applied protective coating at each location	One (1) surface profile measurement per week of blasting One (1) spot measurement (3 individual readings) per day as defined in PA-2 for coating thickness after each layer of applied protective coating at each location	Two times a year observe one surface profile and one surface measurement by the contractor Observe a minimum of one profile and measurement per project	One (1) surface profile and measurement per three (3) months; a minimum of one per project

SELECTED PROJECT FORMS