



**CITY OF HARRISONBURG  
DEPARTMENT OF FINANCE  
AND PURCHASING  
409 SOUTH MAIN STREET,  
THIRD FLOOR  
HARRISONBURG, VA 22801**

**INVITATION TO BID (ITB) COVER PAGE**

<b>ISSUE DATE:</b> November 15, 2016	<b>INVITATION TO BID NUMBER:</b> 2017016-PW-B	<b>FOR:</b> Martin Luther King, Jr. Way Widening Project U000-115-253 / STP-5115(211)
<b>DEPARTMENT:</b> Public Works	<b>DATE/TIME OF CLOSING:</b> December 20, 2016 at 3:00pm local time	<b>CONTRACT ADMINISTRATOR:</b> Kim Cameron, P.E.
<b>DATE/TIME LAST DAY FOR QUESTIONS:</b> December 13, 2016 at 12:00pm (noon) local time	<b>DATE/TIME PRE-BID MEETING:</b> November 29, 2016 at 2:00pm local time	<b>PRE-BID MEETING MANDATORY:</b> __ Yes <u>X</u> No    __ N/A

**Bids** - In accordance with the following and in compliance with all terms and conditions, unless otherwise noted, the undersigned offers and agrees, if the bid is accepted, to furnish items or services for which prices are quoted, delivered or furnished to designated points within the time specified. It is understood and agreed that this entire ITB and any addenda shall constitute a contract.

Sealed bids, subject to terms and conditions of this Invitation to Bid will be received by the City of Harrisonburg Purchasing Office, 409 South Main Street, Third Floor, Harrisonburg, Virginia 22801 until the date/ time specified above for furnishing items or services delivered or furnished to specified destinations within the time specified or stipulated by the vendor(s).

**The City does not discriminate against small and minority businesses or faith-based organizations.**

VENDOR INFORMATION

Name of Vendor: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
 Address: \_\_\_\_\_ Federal Employer Identification #: \_\_\_\_\_  
 \_\_\_\_\_ State Corporation Commission #: \_\_\_\_\_  
 Contact Name: \_\_\_\_\_ Contact Email Address: \_\_\_\_\_

**By signing this bid, Vendor(s) certifies, acknowledges, understands and agrees to be bound by the conditions set forth in this ITB.**

_____	_____
<b>VENDOR'S LEGALLY AUTHORIZED SIGNATURE</b>	<b>DATE</b>
_____	_____
<b>PRINT NAME</b>	<b>TITLE</b>

Please take a moment to let us know how you found out about this Invitation to Bid (ITB) – Check one:

City of Harrisonburg Website     eVA Website     Bid Room (Please List) \_\_\_\_\_

The Daily News Record Newspaper     Notified by City Directly

Other (Please List) \_\_\_\_\_

***\*This document must be completed & returned with bid submission.***

**PROJECT MANUAL**

**FOR**

**CITY OF HARRISONBURG, VIRGINIA**

**MARTIN LUTHER KING, JR. WAY WIDENING PROJECT**

**PROJECT:  
U000-115-253**

**FHWA:  
STP-5115(211)**

**UPC:  
109379**

**CITY OF HARRISONBURG, VIRGINIA**

**DEPARTMENT OF PUBLIC WORKS**

**November 15, 2016**

Prepared by

Department of Public Works  
City of Harrisonburg  
320 East Mosby Road  
Harrisonburg, Virginia 22801

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**Table of Contents**

**0001 Invitation to Bidders .....1**

**0100 Instructions to Bidders .....3**

**0300 Bid Form .....9**

**0301 Bid Security .....13**

**0302 Contractor Eligibility and Registration .....14**

**0303 State Corporation Commission Form .....15**

**0304 Non-Collusion Affidavit.....16**

**0305 VDOT Form C-48 Subcontractors/Supplier Solicitation and Utilization Form .....17**

**0306 VDOT Form C-49 DBE Good Faith Efforts Documentation .....18**

**0307 VDOT Form C-104 Bidder Statement Federally Funded Projects .....28**

**0308 VDOT Form C-105 Bidder Certification Federally Funded Projects .....29**

**0309 VDOT Form C-111 Minimum DBE Requirements .....31**

**0310 VDOT Form C-112 Certification of Binding Agreement with DBE Firms .....32**

**0400 Terms & Conditions for the City of Harrisonburg, VA .....34**

**0401 Escrow Account Election Form and Agreement .....42**

**0501 Agreement.....47**

**0502 Notice to Proceed.....52**

**0800 Contractor’s Application for Payment .....53**

**0900 Federal and State Requirements .....56**

**1000 Supplemental Specifications .....118**

**Attachment A – References List .....204**

SECTION 0001  
INVITATION TO BIDDERS

1. PROJECT

Martin Luther King, Jr. Way Widening Project for the City of Harrisonburg, VA

2. DESCRIPTION OF WORK

Construction of sidewalk, multi-use trail, CG-6 curb & gutter, median, CG-12 detectible warning surface, concrete entrances, retaining wall, traffic signal upgrades, pedestrian signal work, together with all appurtenances, utility relocations and incidental items required to complete the work. Start work by March 1, 2017. Entire project must be completed by December 1, 2017.

3. DOCUMENTS

Bid documents are available for viewing on the internet at [www.harrisonburgva.gov/bids-proposals](http://www.harrisonburgva.gov/bids-proposals) and also on the eVA website at [www.eva.virginia.gov](http://www.eva.virginia.gov) . Bid documents are available for purchase at DTS Reprographics 4803 South Valley Pike, Harrisonburg VA, 22801, (540) 433-8373.

4. PRE-BID CONFERENCE (OPTIONAL)

November 29, 2016 at 2:00 PM local time at the City Hall, 409 South Main Street, Room 11 and 12 lower level. Attendance is optional, however, bidders are highly encouraged to attend. Questions will be received up until December 13, 2016 at 12:00 PM local time and posted as addenda on the City's website at [www.harrisonburgva.gov/bids-proposals](http://www.harrisonburgva.gov/bids-proposals) as well as on the eVA website at [www.eva.virginia.gov](http://www.eva.virginia.gov).

5. BID BOND

Bids shall be accompanied by a 5% bid security. Bid bond must be in the form of a cashier's check, certified check or a bid bond issued by a surety.

6. BIDS DUE

December 20, 2016 at 3:00 PM local time at the City of Harrisonburg, Purchasing Office, 409 South Main Street, Third Floor, Harrisonburg, VA, 22801.

7. BID OPENING

Bids will be opened and read publicly at City Hall, 409 South Main Street, in Room 11 and 12 lower level.

8. OWNER

City of Harrisonburg, 409 South Main Street, Harrisonburg, VA, 22801

9. CONTRACT ADMINISTRATOR

Kim Cameron, PE, 320 East Mosby Road, Harrisonburg, VA 22801.

SECTION 0100  
INSTRUCTIONS TO BIDDERS

1. SECURING DOCUMENTS

Bid documents are available for viewing at the following Harrisonburg locations: Department of Public Works, 320 East Mosby Road, Harrisonburg, VA.

Bid documents are available for viewing on the internet at [www.harrisonburgva.gov/bids-proposals](http://www.harrisonburgva.gov/bids-proposals) and also on the eVA website at [www.eva.virginia.gov](http://www.eva.virginia.gov).

Bid documents are available for purchase at DTS Reprographics 4803 South Valley Pike, Harrisonburg VA, 22801, (540) 433-8373.

2. BIDDER ELIGIBILITY

A. Bids

Bids will only be accepted from Contractors who are experienced in and actively engaged in the type of construction of the item(s) called for in the bid. No bid will be accepted from or contract awarded to any person, firm, or corporation that is in arrears or is in default to the City upon any debt or contract, or that is a defaulter, as surety or otherwise, upon any obligation to said City or had failed to perform faithfully any previous contract with the City. Where an installation or assembly is to be performed by a subcontractor, the bidder must name the subcontractor, and the City reserves the right to determine whether the named subcontractor is fit and capable to perform the required work. Bidders must be prequalified with VDOT to be considered responsive bidders on this project. A copy of the bidder's VDOT Certificate of Qualifications must be submitted with the bid documents. All subcontractors shall be prequalified with VDOT for all prequalifiable trades.

B. Bidders are required under Chapter 11, Title 54, Code of Virginia, to show evidence of certificate of registration before bid may be received and considered.

C. Bidders must certify in the bid form that they are not currently barred from bidding on contracts by any agency of the Commonwealth of Virginia or any federal agency.

3. BID FORM AND SUBMISSION

In order to receive consideration, submit bids in accordance with the following:

A. Make bids upon the forms provided herewith, properly signed and with all items filled out. Do not change the wording of the bid form, and do not add words to the bid form. Unauthorized conditions, limitations, or provisions attached to the bid may be cause for rejection of the bid.

B. Address bids to the Owner, and deliver to the address specified in the invitation to bid on or before the day and hour set for opening the bids. Enclose each bid in an opaque, sealed envelope or box bearing the title of the Work, the project number(s),

the ITB number, the name of the bidder, Virginia contractor registration number and the date and hour of the bid opening. Submit only the original signed copy of the bid. The City of Harrisonburg is not responsible for delays in the delivery of the mail by the U.S. Postal Service, private couriers, or the inter-office mail system. It is the sole responsibility of the bidder to see that his bid is received on time. No faxed or emailed bid will be considered. No bids received after the time fixed for receiving them will be considered. Late or incomplete bids may be returned to the bidder. All expenses for making bids to the City shall be borne by the bidder.

- C. Indicate receipt of issued addenda. All Bidders are cautioned to check at [www.harrisonburgva.gov/bids-proposals](http://www.harrisonburgva.gov/bids-proposals) or at [www.eva.virginia.gov](http://www.eva.virginia.gov) to assure that all Addenda have been received and that the cost consequences thereof have been included in the bid.
- D. Although the bid is based upon unit prices, many items are to be priced under lump sum designations. It is the bidder's responsibility to verify the exact scope of work for all items in order to establish a bid price.
- E. The following documents fully completed and signed where appropriate are required for a responsive bid:
  - i) Signed Cover Sheet
  - ii) Bid Form (0300)
  - iii) Bid Security (0301)
  - iv) Contractor Eligibility and Registration (0302)
  - v) State Corporation Commission Registration (0303)
  - vi) VDOT Form C-48 (City Revision) (0305)
  - vii) VDOT Form C-49 (0306)
  - viii) VDOT Form C-104 (0307)
  - ix) VDOT Form C-105 (0308)
  - x) VDOT Form C-111 (0309)
  - xi) Copy of VDOT Certification of Qualifications
  - xii) Insurance Requirements for the City of Harrisonburg
  - xiii) Signed Addenda, if applicable
  - xiv) Attachment A – References List

#### 4. BONDS

- A. Bid security in the amount stated in the Invitation to Bid must accompany each bid. The successful bidder's security will not be returned until he has signed the Contract and has furnished the required Certificates of Insurance.
- B. The Owner reserves the right to retain the security of all bidders until the successful bidder enters into the Contract or until 90 days after bid opening, whichever is sooner. Other bid security will be returned as soon as practicable. If any bidder refuses to enter into a Contract, the bid security may be forfeited.
- C. Prior to signing the Contract, the Owner will require the successful bidder to secure and post a Labor and Materials Payment Bond and a Performance Bond, each in the

amount of 100% of the Contract Sum. Such Bonds shall be issued by a Surety acceptable to the Owner.

#### 5. EXAMINATION OF DOCUMENTS AND SITE OF WORK

Before submitting a bid, each bidder shall examine the Drawings carefully, shall read the Project Manual and all other proposed Contract Documents, and shall visit the site of the Work. Each bidder shall fully inform himself prior to bidding as to existing conditions and limitations under which the Work is to be performed, and shall include in his bid a sum to cover the cost of items necessary to perform the Work as set forth in the proposed Contract Documents. No allowance will be made to a bidder because of lack of such examination and knowledge. The submission of a bid will be considered as conclusive evidence that the bidder has made such examination.

#### 6. COMPLIANCE WITH FEDERAL AND STATE REQUIREMENTS

Contractor shall comply with Section 0900, Federal and State Requirements. Contractors will be held responsible for the wage posting and reporting requirements stipulated in these documents. Contractor's employees may be subject to brief interviews with VDOT or City personnel. Contract award is subject to verification by Owner that Contractor is not banned from bidding on Federal or State aid projects.

#### 7. INTERPRETATION OF CONTRACT DOCUMENTS PRIOR TO BIDDING

If any person contemplating submitting a bid for construction of the Work is in doubt as to the true meaning of any part of the proposed Contract Documents, or finds discrepancies on or omissions from any part of the proposed Contract Documents, he shall submit a written request to Ms. Pat Hilliard, Procurement Manager, by email to [Purchasing@harrisonburgva.gov](mailto:Purchasing@harrisonburgva.gov) or by fax to 540-432-7779. Oral questions will not be permitted. All questions must be received no later than December 13, 2016 at 12:00 PM local time. The person submitting the request shall be responsible for any other interpretations of the proposed Contract Documents. Questions will be answered in Addendum format and posted as outlined in the invitation to bid, at [www.harrisonburgva.gov/bids-proposals](http://www.harrisonburgva.gov/bids-proposals) and at [www.eva.virginia.gov](http://www.eva.virginia.gov). It is the responsibility of all bidders to ensure that they have received all addenda and to include signed copies of any and all addenda with their bid submission.

#### 8. AWARD OF CONTRACT

The Contract, if awarded, will be awarded to the lowest responsive and responsible bidder, meeting all specifications, subject to the Owner's right to reject any or all bids and to waive informality and irregularity in the bids and in the bidding.

## 9. EXECUTION OF AGREEMENT

- A. The form of the Agreement which the successful bidder will be required to execute is included in the Project Manual.
- B. The bidder to whom the Contract is awarded shall, within ten (10) calendar days after notice of award and receipt of Agreement forms from the Owner, sign and deliver required copies to the Owner.
- C. At or prior to delivery of the signed Agreement, the bidder to whom the Contract is awarded shall deliver to the Owner those Certificates of Insurance and Endorsement required by the Contract Documents and such Labor and Materials Payment Bonds and Performance Bond and City Business License, as are required by the Owner.
- D. Bonds and Certificates of Insurance shall be approved by the Owner before the successful bidder may proceed with the Work. Failure or refusal to provide Bonds or Certificates of Insurance and Endorsement in a form satisfactory to the Owner shall subject the successful bidder to loss of time from the allowable construction period equal to the time of delay in furnishing the required material.

## 10. CONSTRUCTION TIME AND LIQUIDATED DAMAGES

- A. The Agreement includes a stipulation that all Work be completed by a specified date (see section 0501). Liquidated damages will be applied as specified in the current VDOT Road and Bridge Specifications. The contractor is not to begin work until the receipt of the Owner's Notice to Proceed which will be effective upon receipt.

## 11. INSURANCE REQUIREMENTS

**This form must be signed and returned with your bid submission.**

By signing and submitting a bid or proposal the contractor certifies that if awarded the contract, they will have the following insurance coverages at the time the contract is awarded. If any subcontractors are involved, the subcontractor will have the same insurance. The contractor further certifies that they or any subcontractor will maintain these coverages during the entire term of the contract.

1.) The contractor will maintain a general liability policy with \$1,000,000 combined single limits. Coverage is to be on an occurrence basis with an insurer licensed to conduct business in the Commonwealth of Virginia. The insurer must have an A. M. Best rating of A- or better. **The insurer must list the City of Harrisonburg as an additional insured. The endorsement must be issued by the insurance company. A notation on the certificate of insurance is not sufficient.**

2.) The contractor will maintain workers' compensation coverage in compliance with the laws of the Commonwealth of Virginia. The coverage must have statutory limits and be with an insurer licensed to conduct business in the Commonwealth of Virginia. The insurer must have an A. M. Best rating of A- or better. As an alternative, it is acceptable for the contractor to be insured by a group self insurance association that is licensed by the Virginia Bureau of Insurance. The contractor will also carry employers liability insurance with a limit of at least \$100,000 bodily injury by accident/\$500,000 bodily injury by disease policy limit/\$100,000 bodily injury by disease each employee.

3.) The contractor will maintain automobile liability insurance with limits of at least \$1,000,000. The coverage is to be written with a symbol "1". The insurer must be licensed to conduct business in the Commonwealth of Virginia. The insurer must have an A. M. Best rating of A- or better.

With all policies listed above, the insurer or agent of the insurer must issue a certificate of insurance to show evidence of coverage.

### BIDDER/OFFEROR STATEMENT

***We understand the Insurance Requirements of these specifications and will comply in full if awarded this contract.***

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_ Title \_\_\_\_\_  
(Print)

Name of Firm: \_\_\_\_\_

### 13. CITY BUSINESS LICENSE

- A. City of Harrisonburg Business License is required for successful award of this project. At or prior to delivery of the signed Agreement/Contract, the bidder to whom the Contract is awarded shall deliver to the Owner a copy of their City Business License. The bidder shall ensure that the Business License indicates a basis amount equal to or greater than the awarded Contract value. For information on City Business Licenses contact the Harrisonburg Commissioner of Revenue office at 540-432-7704.

### 14. STANDARD SPECIFICATIONS AND STANDARDS

Work in this project shall conform to the latest editions of the Virginia Department of Transportation (VDOT) Road and Bridge specifications, the VDOT Road and Bridge Standards, the Virginia Erosion and Sediment Control handbook, the Virginia Erosion and Sediment Control regulations and the City of Harrisonburg Design and Construction Standards Manual. In the event of conflict between any of these standards, specifications or plans, the VDOT specification 105.12 will apply, and shows the hierarchy of documents and which shall govern.

### 15. CONSIDERATION OF PROJECT COMPLEXITIES

- A. In preparing this bid, Contractor shall understand and account in his costs for the complexities involved in administrating the construction required by this Contract. Contractor shall be aware that the project area receives heavy vehicular and pedestrian traffic. Contractor shall accommodate such traffic through and around the work area in a safe and well-marked manner.
- B. Contractor should be aware that this is a federal and state aid project with several requirements. The specific requirements for this project are shown in Section 0900. Bid forms pertaining to the federal requirements are included in Section 0305-0310.
- C. Submission of a bid shall be an affirmation that the Contractor understands these complexities and difficulties associated with this project, that he has included in his bid a sufficient dollar amount to compensate for the additional time and effort these complexities and difficulties will require on his part, and that he understands that the Owner will not accept any claim for time extension or additional costs associated with them.

END INSTRUCTIONS TO BIDDERS

## 0300 BID FORM



Mr. James Baker  
Director  
Department of Public Works  
320 East Mosby Road  
Harrisonburg, Virginia 22801

Dear Sir:

The undersigned, having visited and examined the site and having carefully studied the drawings and project manual for the City of Harrisonburg, Martin Luther King, Jr. Way Widening Project, hereby proposes to furnish all plant, labor, equipment, materials, and services and to perform all operations necessary to execute and complete the work required for the project in strict accordance with the drawings dated November 9, 2016 and the project manual dated November 15, 2016, together with addenda numbered \_\_\_\_\_, issued during bidding period and hereby acknowledged subject to the terms and conditions of the Agreement for the following sums of money:

### **BASE BID PROPOSAL**

All labor, material, services and equipment necessary for the completion of the work shown on the Drawings and in the Project Manual and in the Addenda (if issued).

\_\_\_\_\_ (\$\_\_\_\_\_)

This bid submitted by (name of firm): \_\_\_\_\_

It is understood and agreed that the Owner, in protecting his best interests, reserves the right to:

Reject any and all bids, or waive any defects in favor of the City

Or

Accept any bid at the bid price, whereupon the contractor shall furnish equipment and materials as specified.

Contractors shall indicate a unit price for each item listed in the Pay Items Summary which follows. The listed pay items are to contain all necessary costs required for completion of the work. It is understood that all quantities listed below are estimated quantities and the Owner reserves the right to raise, lower or eliminate any quantity or item. Unit prices shall be used in determining partial and full payment.



**CITY OF HARRISONBURG , VA**

**0300 BID FORM - MARTIN LUTHER KING, JR. WAY WIDENING PROJECT  
U000-115-253, UPC: 109379**

10/4/2016

LINE NO.	VDOT ITEM NO.	DESCRIPTION OF ITEM	QUALITY			TOTAL COST
			AMOUNT	UNIT	UNIT COST	
1	00100	MOBILIZATION	1	LS		
2	00101	CONSTRUCTION SURVEYING	1	LS		
3	24160	TEMPORARY SIGN	181	SF		
4	24278	GROUP 2 CHANNELIZING DEVICES	22138	DAYS		
5	24152	TYPE III BARRICADE 8'	3	EA		
6	24281	ELECTRONIC ARROWS	320	HR		
7	24282	FLAGGER SERVICE	40	HR		
8	23560	TEMPORARY SAFETY FENCE 4'	200	LF		
9	54510	TEMP. PAVE. MARK. (TY. D, CL.I) 4"	5725	LF		
10	54522	TEMP. PAVE. MARK. (TY. D, CL.I) 24"	40	LF		
11	54466	TEMP. PAVE. MARK (TY. E) 6"	3700	LF		
12	27505	TEMPORARY SILT FENCE TYPE A	1550	LF		
13	27461	INLET PROTECTION TYPE B	30	EA		
14	27430	SILTATION CONTROL EXCAVATION	500	CY		
15	24100	ALLAYING DUST	240	HR		
16	00120	REGULAR EXCAVATION	1410	CY		
17	51910	SAW CUT	2100	LF		
18	24810	NS RESET EXISTING VAULT TOP	2	EA		
19	24810	NS RESET EXISTING VAULT	1	EA		
20	24810	NS RESET EXISTING CURB INLET TOP	1	EA		
21	24810	NS RESET EXISTING MANHOLE TOP	2	EA		
22	24810	NS RESET EXISTING TPED TOP	1	EA		
23	24505	NS RELOCATE EXISTING SIGN	10	EA		
24	24505	NS RELOCATE EXISTING JMU PARKING COUNT SIGN	2	EA		
24	24430	DEMOLITION OF PAVEMENT (FLEXIBLE)	480	SY		
25	16523	FLEXIBLE PAVE. PLANING ABOVE 2"- 4"	8865	SY		
26	24505	NS RELOCATION OF EXISTING VAULT	2	EA		
27	24505	NS RELOCATION OF EXISTING VENT	2	EA		
28	24505	NS RELOCATION OF EXISTING LIDS	2	EA		
29	14120	REMOVAL OF COMBINATION CURB AND GUTTER	1725	LF		
30	85021	NS DEMOLITION OF EXISTING ENTRANCE	226	SY		
31	41825	RELOCATION OF EXISTING FIRE HYDRANT	1	EA		
32	24505	NS RELOCATION OF EXISTING RADIO DIRECTIONAL ANTENNA	1	EA		
33	51937	REMOVAL OF EXISTING JUNCTION BOX	7	EA		
34	24504	NS REMOVAL OF EXISTING CURB INLET TOP	1	EA		
35	24504	NS REMOVAL OF EXISTING DROP INLET TOP	7	EA		
36	24504	NS REMOVAL OF EXISTING SIGN	2	EA		
37	24504	NS REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT	1	LS		
38	24504	NS REMOVAL OF EXISTING VAULT	1	LS		
39	24504	NS REMOVAL OF EXISTING TRAFFIC POLE FOUNDATION (2' BELOW GRADE)	6	EA		
40	85021	NS DEMOLITION OF EXISTING SIDEWALK	1,060	SY		
41	85011	NS DEMOLITION OF EXISTING BRICK RETAINING WALL	1	LS		
42	00280	SELECT MATERIAL TYPE II MIN. CBR-20	765	CY		
43	27300	SOD	1275	SY		
44	23600	NS FENCE	250	LF		
45	12600	STANDARD COMBINATION CURB AND GUTTER CG-6	1750	LF		
46	00588	UNDERDRAIN UD-4	1565	LF		
47	12020	STANDARD CURB CG-2	285	LF		
48	13108	CG-12 DETECTABLE WARNING SURFACE	28	SY		
49	13222	HYDR. CEMENT CONC. SIDEWALK 7"	40	SY		



**CITY OF HARRISONBURG , VA**

**0300 BID FORM - MARTIN LUTHER KING, JR. WAY WIDENING PROJECT  
U000-115-253, UPC: 109379**

10/4/2016

LINE NO.	VDOT ITEM NO.	DESCRIPTION OF ITEM	QUALITY			TOTAL COST
			AMOUNT	UNIT	UNIT COST	
50	21020	MEDIAN STRIP MS-1	495	SY		
51	13120	NS ENTRANCE GUTTER CG-11	255	SY		
52	13220	HYDR. CEMENT CONC. SIDEWALK 4"	190	SY		
53	16355	ASPHALT SURFACE COURSE SM-12.5D	1280	TON		
54	16337	ASPHALT SURFACE COURSE SM-9.5AL	85	TON		
55	10643	ASPHALT BASE COURSE BM-25.0D	400	TON		
56	10123	AGGREGATE BASE COURSE NO. 21A	1695	TON		
57	10498	NS PAVEMENT PATCH	1280	LF		
58	54032	4" PAVEMENT LINE MARKING TYPE B, CLASS II (PREFORMED)	660	LF		
59	54022	6" PAVEMENT LINE MARKING TYPE A	2720	LF		
60	54040	12" PAVEMENT LINE MARKING TYPE B, CLASS II (PREFORMED)	615	LF		
61	54042	24" PAVEMENT LINE MARKING TYPE B, CLASS II (PREFORMED)	630	LF		
62	54300	PAVEMENT MESSAGE MARKING ELONG. ARROW SINGLE TYPE B, CLASS II (PREFORMED)	9	EA		
63	54310	PAVEMENT MESSAGE MARKING ELONG. ARROW DOUBLE TYPE B, CLASS II (PREFORMED)	6	EA		
64	54254	PAVEMENT MESSAGE MARKING BICYCLE LANE SYMBOL TYPE B, CLASS II (PREFORMED)	2	EA		
65	54402	NS PAVEMENT MESSAGE MARKING ACCESIBLE SYMBOL TYPE B, CLASS II (PREFORMED)	8	EA		
66	85021	NS STREETPRINT STAMPED ASPHALT CROSSWALK	3490	SF		
67	50108	SIGN PANEL	170	SF		
68	50430	SIGN POST STP-1, 2" 14 GAUGE	290	LF		
69	51243	NS CONCRETE FOUNDATION AND SIGN ANCHORS	18	EA		
70	13214	NS STREET CENTERLINE MONUMENTS	2	EA		
71	50902	NS LED STREET NAME SIGN	8	EA		
72	51963	REMOVE EXISTING SIGNAL EQUIPMENT	1	LS		
73	51245	CONCRETE FOUNDATION CF-1	2	EA		
74	51030	CONTROLLER	2	EA		
75	51137	INSTALL CONTROLLER	2	EA		
76	51184	TRAFFIC SIGNAL (FOR HEAD 3-SEC), 12" LED & BACKPLATE	45	EA		
77	51184	TRAFFIC SIGNAL HEAD (FOR 4-SEC), 12" LED & BACKPLATE	4	EA		
78	51184	TRAFFIC SIGNAL HEAD (FOR 5-SEC), 12" LED & BACKPLATE	35	EA		
79	51238	CONCRETE FOUNDATION SIGNAL POLE PF-8	50	CY		
80	51240	CONCRETE FOUNDATION PF-2	3	EA		
81	51210	PEDESTAL POLE PF-2 10'	3	EA		
82	51425	SIGNAL POLE MP-1 20' ONE ARM 35'	1	EA		
83	51327	SIGNAL POLE MP-1 20' ONE ARM 40'	1	EA		
84	51425	SIGNAL POLE MP-1 20' ONE ARM 45'	1	EA		
85	51337	SIGNAL POLE MP-1 20' ONE ARM 50'	3	EA		
86	51425	NS SIGNAL POLE MP-1 20' DUAL ARM 45' & 60'	1	EA		
87	59050	NS CCTV PTZ A96:A118CAMERA (DIGITAL)	1	EA		
88	59071	NS CAT 5 OUTDOOR CABLE (SHIELDED)	25	LF		
89	59050	NS CCTV PTZ CAMERA (DIGITAL)	1	EA		
90	59071	NS CCTV COMPOSITE CABLE (PTZ)	120	LF		
91	51602	14/4 CONDUCTOR CABLE	17280	LF		
92	55080	8/1 CONDUCTOR CABLE	805	LF		
93	51508	VIDEO DETECTION CABLE (6 CONDUCTOR SIAMESE)	2365	LF		
94	51700	14/2 CONDUCTOR CABLE SHIELDED	2080	LF		
95	51614	NS EMERGENCY PREEMPTION CABLE	2305	LF		
96	59073	NS FIBER OPTIC	915	LF		
97	52403	PEDESTRIAN SIGNAL HEAD SP-8	16	EA		
98	51198	ACCESSIBLE PED. ACTUATION PA-2 SYSTEM WITH ACCESSIBLE PED BUTTON	16	EA		
99	51830	HANGER ASSEMBLY SM-3, ONE WAY	23	EA		



**CITY OF HARRISONBURG , VA**

**0300 BID FORM - MARTIN LUTHER KING, JR. WAY WIDENING PROJECT  
U000-115-253, UPC: 109379**

10/4/2016

LINE NO.	VDOT ITEM NO.	DESCRIPTION OF ITEM	QUALITY			TOTAL COST
			AMOUNT	UNIT	UNIT COST	
100	51832	HANGER ASSEMBLY SMB-1, ONE WAY	6	EA		
101	51838	HANGER ASSEMBLY SMB-3, ONE WAY	10	EA		
102	51834	HANGER ASSEMBLY SMB-2, ONE WAY	11	EA		
103	51541	NS VIDEO DETECTION SYSTEM	2	EA		
104	51507	VIDEO DETECTION CAMERA	8	EA		
105	51524	EMERGENCY VEHICLE PREEMPTION DETECTION SYSTEM (4-WAY)	2	EA		
106	52425	ELECTRICAL SERVICE SE-3 TYPE B	2	EA		
107	51160	ELECTRIC SERVICE GROUNDING ELECTRODE (10')	2	EA		
108	55587	JUNCTION BOX JB-S2	6	EA		
109	55588	JUNCTION BOX JB-S3	4	EA		
110	56021	1" PVC CONDUIT (SCH 80 - TRAFFIC)	590	LF		
111	56053	2" PVC CONDUIT (SCH 80 - TRAFFIC)	275	LF		
112	56050	BORED CONDUIT 2"	1045	LF		
113	56054	3" PVC CONDUIT (SCH 80 - TRAFFIC)	120	LF		
114	56051	BORED CONDUIT 3"	515	LF		
115	56200	TRENCH EXCAVATION ECI-1	175	LF		
116	56202	TRENCH EXCAVATION ECI-2	455	LF		
117	51994	UNINTERRUPTIBLE POWER SUPPLY (TESCO)	2	EA		
118	51995	UNINTERRUPTIBLE POWER SUPPLY BATTERY	12	EA		
119	51996	UNINTERRUPTIBLE POWER SUPPLY CABINET	2	EA		
120	56205	TEST BORE	6	EA		
121	40121	12" DI WATER LINE	1050	LF		
122	40380	NS 12" DI POLYWRAP	1050	LF		
123	40081	8" DI WATER LINE	60	LF		
124	40381	NS 8" DI POLYWRAP	60	LF		
125	41006	6" DI GATE VALVE	2	EA		
126	41008	8" DI GATE VALVE	3	EA		
127	41012	12" DI GATE VALVE	3	EA		
128	40992	NS DEAD END ANCHOR	1	EA		
129	27550	STORM WATER MANAGEMENT STRUCTURE (CDS UNIT)	1	EA		
130	06745	DROP INLET DI-2A TOP	1	EA		
131	06815	DROP INLET DI-3A	1	EA		
132	06818	DROP INLET DI-3B, L=6'	1	EA		
133	06820	DROP INLET DI-3B, L=10'	4	EA		
134	06822	DROP INLET DI-3B, L=14'	1	EA		
135	06836	DROP INLET DI-3C, L=8'	1	EA		
136	06840	DROP INLET DI-3C, L=16'	1	EA		
137	09055	MANHOLE MH-2	2	EA		
138	42764	MANHOLE FRAME & COVER F&C-1	7	EA		
139	01122	12" CONCRETE PIPE, CLASS III	45	LF		
140	01152	15" CONCRETE PIPE, CLASS III	45	LF		
141	59000	LIGHT POLE CONSTRUCTION & INSTALLATION	10	EA		
142	56030	2" CONDUIT (SCH 40 - DUCT BANK)	410	LF		
143	56034	3" CONDUIT (SCH 40 - DUCT BANK)	2590	LF		
144	56038	4" CONDUIT (SCH 40 - DUCT BANK)	3850	LF		
145	56042	NS 6" CONDUIT	910	LF		
146	56042	NS DUCT BANK EXCAVATION	1640	LF		
147	56042	NS DUCT BANK BACKFILL (LABOR)	1640	LF		
148	00529	FLOWABLE FILL	165	CY		
149	10251	NS #78 STONE	255	CY		
150	60403	CONCRETE CLASS A3 (WALL FOUNDATION)	67.5	CY		
151	85011	JMU ENTRANCE WALL	1	LS		
<b>TOTAL BID \$</b>						

### 0301 BID SECURITY

We are properly equipped to execute work of the character and extent indicated by the bidding documents and so covered by this bid and will enter into agreement for the execution and completion of the work in accordance with the drawings and project manual and this bid; and we further agree that if awarded the contract, we will commence the work on the date stated in the "Notice to Proceed" document and prosecute the work and all obligations by the specified completion dates.

Enclosed herewith is the following security, offered as evidence that the undersigned will enter into agreement for the execution and completion of the work in accordance with the drawings and project manual.

Certified check or Cashier's check for the sum of

\$ \_\_\_\_\_

\_\_\_\_\_  
Name of Bank

Bidder's Bond in the amount of

\$ \_\_\_\_\_

\_\_\_\_\_  
Bond issued by

The undersigned further agrees that in case of failure on his part to execute the said agreement within the ten consecutive calendar days after written notice being given on the award of the contract, the monies payable by the security accompanying this bid shall be paid to the City of Harrisonburg, Virginia as bid bond shall be forfeited for such failure, otherwise, the security accompanying this bid shall be returned to the undersigned.

This bid is subject to acceptance within a period of 30 days from this date.

Respectfully submitted,

\_\_\_\_\_  
Company Name

By \_\_\_\_\_  
Signature of Authorized

Printed Name \_\_\_\_\_

Date \_\_\_\_\_

## 0302 CONTRACTOR ELIGIBILITY AND REGISTRATION

This is to certify that I (we) are not currently barred from bidding on contracts by any agency of The Commonwealth of Virginia, nor am I (we) a part of any firm/corporation that is currently barred from bidding on contracts by any agency of The Commonwealth of Virginia.

Check one:

\_\_\_\_\_ I am currently registered as a contractor in the Commonwealth of Virginia.

\_\_\_\_\_ My registration number is \_\_\_\_\_

\_\_\_\_\_ I am currently not required to register as a contractor in the Commonwealth of Virginia per Chapter 11, Title 54 of the Code of Virginia.

\_\_\_\_\_  
Contractor

[SEAL]

\_\_\_\_\_  
Address

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Attest

By: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

## 0303 State Corporation Commission Form

**Virginia State Corporation Commission (“SCC”) registration information:**

**The undersigned Offeror:**

is a corporation or other business entity with the following SCC identification number:

\_\_\_\_\_ **-OR-**

is not a corporation, limited liability company, limited partnership, registered limited liability partnership, or business trust **-OR-**

is an out-of-state business entity that does not regularly and continuously maintain as part of its ordinary and customary business any employees, agents, offices, facilities, or inventories in Virginia (not counting any employees or agents in Virginia who merely solicit orders that require acceptance outside Virginia before they become contracts, and not counting any incidental presence of the Offeror in Virginia that is needed in order to assemble, maintain, and repair goods in accordance with the contracts by which such goods were sold and shipped into Virginia from bidder’s out-of-state location) **-OR-**

is an out-of-state business entity that is including with this bid an opinion of legal counsel which accurately and completely discloses the undersigned Offeror’s current contacts with Virginia and describes why those contacts do not constitute the transaction of business in Virginia within the meaning of § 13.1-757 or other similar provisions in Titles 13.1 or 50 of the Code of Virginia. **Attach opinion of legal counsel to this form.**

**\*\*NOTE\*\*** >> Check the following box if you have not completed any of the foregoing options but currently have pending before the SCC an application for authority to transact business in the Commonwealth of Virginia and wish to be considered for a waiver to allow you to submit the SCC identification number after the due date for proposals (the Commonwealth reserves the right to determine in its sole discretion whether to allow such waiver):

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Name:** \_\_\_\_\_  
Print

**Title:** \_\_\_\_\_

**Name of Firm:** \_\_\_\_\_

**0304 NON-COLLUSION AFFIDAVIT**

Under oath, I hereby affirm under penalty of perjury:

- (1) That I am the bidder or a partner of the bidder, or an officer or employee of the bidding corporation with authority to sign on its behalf;
- (2) That the attached bid or bids have been arrived at by the bidder and have been arrived at and submitted without collusion or any design to limit bidding or competition;
- (3) That the contents of the bid or bids have not been communicated to any person not an employee or agent of the bidder on any bid furnished with the bid or bids, and will not be communicated to any such person prior to the official opening of the bid or bids; and
- (4) That I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Signed \_\_\_\_\_

Title \_\_\_\_\_

Firm Name \_\_\_\_\_

CITY / COUNTY OF \_\_\_\_\_

STATE OF \_\_\_\_\_, to wit:

I, \_\_\_\_\_, a Notary Public, do certify that

\_\_\_\_\_ whose name is signed to the foregoing has

this date acknowledged the same before me in my City foresaid.

Given under my hand this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

My Commission expires \_\_\_\_\_.

\_\_\_\_\_  
Notary Public



0306 COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF TRANSPORTATION  
**DBE GOOD FAITH EFFORTS DOCUMENTATION**

**--DO NOT DETACH--**

**THIS INFORMATION MUST BE SUBMITTED  
WITH YOUR BID PROPOSAL IF YOUR BID DOES  
NOT MEET THE PROJECT DBE REQUIREMENTS,  
OR  
WHEN REQUESTED BY VDOT**

CONTRACT I.D. NUMBER 109379

PROJECT NUMBER U000-115-253

FHWA NUMBER STP-5115(211)

DISTRICT \_\_\_\_\_

DATE BID SUBMITTED \_\_\_\_\_

BIDDER'S NAME \_\_\_\_\_

SIGNATURE \_\_\_\_\_

TITLE \_\_\_\_\_

VENDOR NUMBER \_\_\_\_\_

DBE GOAL FROM BID PROPOSAL \_\_\_\_\_ 7% \_\_\_\_\_

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF TRANSPORTATION  
**DBE GOOD FAITH EFFORTS DOCUMENTATION**

CONTRACT I.D. NO. \_\_\_\_\_ 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. \_\_\_\_\_ 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. \_\_\_\_\_ 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	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. \_\_\_\_\_ 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. \_\_\_\_\_ DATE SUBMITTED \_\_\_\_\_

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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 WHICH 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. \_\_\_\_\_ DATE SUBMITTED \_\_\_\_\_

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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. \_\_\_\_\_ 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. \_\_\_\_\_ 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.



**0307 COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF TRANSPORTATION**

**PROJECT:** U000-115-253  
\_\_\_\_\_

**FHWA:** STP-5115(211)  
\_\_\_\_\_

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 Commonwealth Transportation Board.

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 Commonwealth Transportation Board.

Signed at \_\_\_\_\_, this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_  
County (City), State

By: \_\_\_\_\_  
Name of Firm Signature Title (print)

**0308 COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF TRANSPORTATION  
AFFIDAVIT**

**PROJECT:** U000-115-253  
\_\_\_\_\_

**FHWA:** STP-5115(211)  
\_\_\_\_\_

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 33.1-336 of the Code of Virginia (1970). (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.

**ORDER NO.:** \_\_\_\_\_

**CONTRACT ID. NO.:** \_\_\_\_\_

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 judgment 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 bidder 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 statements to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

Signed at \_\_\_\_\_, this \_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_  
County (City), State

\_\_\_\_\_  
Name of Firm By: \_\_\_\_\_  
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 \_\_\_\_

\_\_\_\_\_  
Notary Public My Commission expires \_\_\_\_\_





Second Tier  
Subcontractor if  
Applicable \_\_\_\_\_

By: \_\_\_\_\_  
Signature Title

Date: \_\_\_\_\_

Third Tier  
Subcontractor if  
Applicable \_\_\_\_\_

By: \_\_\_\_\_  
Signature Title

Date: \_\_\_\_\_

DBE Contractor \_\_\_\_\_

By: \_\_\_\_\_  
Signature Title

Date: \_\_\_\_\_

## 0400 GENERAL TERMS AND CONDITIONS OF THE CITY OF HARRISONBURG, VA

These General Terms & Conditions shall apply to all purchases and be a part of every contract awarded by the City of Harrisonburg unless otherwise specified in writing. Bidders/Offerors are expected to inform themselves fully as to the conditions, requirements and specifications before submitting bids/proposals. Procurement by the City is subject to the Virginia Public Procurement Act (VPPA) Title 2.2, Chapter 43 of the Code of Virginia and the provisions of The Purchasing and Contracting Policy Manual for the City of Harrisonburg and any revisions thereto. If an inconsistency exists between the VPPA and the Purchasing and Contracting Policy Manual for the City, the VPPA Virginia Code sections take precedence.

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### TABLE OF CONTENTS

#### DEFINITIONS

#### CONDITIONS OF BIDDING

- Bid Price Currency
- Bid/Proposal Acceptance Period
- Cancellation of Solicitations
- City Hall Closure
- Clarifications of Terms
- Conflict of Interest/Collusion
- Debarment Status
- Discrimination Prohibited
- Errors in Bids
- Ethics in Public Contracting
- Excusable Delay
- Licenses, Permits & Fees
- Mandatory Use of City Forms & T&C for ITB's & RFP's
- Modification & Withdrawal of Bids/Proposals
- Public Inspection of Certain Records
- Revisions to the Official ITB/RFP
- Taxes

#### AWARD

- Contract Award
- Bidder Precedence of Terms
- Qualifications of Bidders/Offerors
- Selection Process/Award

#### CONTRACT PROVISIONS

- Anti-Discrimination
- Antitrust
- Applicable Laws & Courts
- Assignment of Contract
- Changes to the Contract
- Contract Execution
- Contractual Disputes
- Cooperative Procurement
- Default
- Drug-Free Workplace
- Immigration Reform & Control Act of 1986
- Indemnification
- Insurance
- Liability & Litigation
- Non-Discrimination of Contractors
- Payment
- Safety & OSHA Standards
- State Corporation Commission (SCC) ID Number
- Termination

#### SPECIFICATIONS

- Condition of Items
- Formal Specifications
- Use of Brand Names

#### DELIVERY

- Defects or Improprieties
- Testing & Inspection
- Transportation & Packaging

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### DEFINITIONS

**ADDENDUM/ADDENDA:** Addition(s) or supplement(s) to a solicitation to clarify, modify or support information which becomes part of the contract.

**BID:** The offer of a prospective vendor/supplier to an Invitation To Bid to provide specific goods or services at specified prices and/or other conditions specified in the solicitation.

**BIDDER/OFFEROR:** Any individual, company, firm, corporation, partnership or other organization who submits a response to an Invitation to Bid or a Request for Proposal and offering to enter into a contract with the City.

**COLLUSION:** A secret agreement or cooperation between two or more parties to accomplish a fraudulent, deceitful, or unlawful purpose.

**CONFLICT OF INTEREST:** An actual or potential situation in which the personal interests of a vendor, employee or public official are, or appear to be, in conflict with the best interests of the City.

**CONTRACTOR:** The entity that has a direct contract with the City to furnish goods, services or construction for a certain price.

**CITY or OWNER:** City of Harrisonburg, Virginia.

**DAY(S):** Defined as calendar days unless otherwise specified as business days.

**INFORMALITY:** A minor defect or variation of a bid or proposal from the exact requirements of the Invitation to Bid or Request for Proposal which does not affect the price, quality, quantity or delivery schedule for the goods, services or construction being procured.

**INVITATION TO BID (ITB):** A formal request which is made to prospective suppliers (bidders) for their quotation on goods, services, or construction desired by the City. The issuance of an ITB will contain or incorporate by reference the specifications and contractual terms and conditions applicable to the procurement.

**PROFESSIONAL SERVICES:** Any type of professional service performed by an independent contractor within the practice of accounting, actuarial services, architecture, dentistry, land surveying, landscape architecture, law, medicine, optometry, pharmacy, or professional engineering (which shall be procured as set forth in the Code of Virginia). **2.2-4301**

**PROPOSAL:** The document submitted by the offeror in response to the RFP to be used as the basis for negotiations for entering into a contract.

**PURCHASING AGENT:** The individual employed and given authority by the Harrisonburg City Council by adoption of the City of Harrisonburg Purchasing and Contracting Policy Manual. Purchasing Agent may also be referred to as Procurement Manager.

**REQUEST FOR PROPOSAL (RFP):** A formal request for a proposal from prospective offerors which will indicate the general terms which are sought to be procured from the offeror and where negotiations are conducted to come to a final contract. The RFP will specify the evaluation criteria to be used and will contain or incorporate by reference other contractual terms and conditions applicable to the procurement.

**RESPONSIBLE BIDDER/OFFEROR:** An individual, company, firm, corporation, partnership or other organization having the capability in all respects to perform fully the contract requirements, and also having the moral and business integrity and reliability which will assure good faith performance.

**RESPONSIVE BIDDER/OFFEROR:** An individual, company, firm, corporation, partnership or other organization having submitted a bid/proposal which conforms in all material respects to the ITB or RFP.

**SOLICITATION:** A formal document issued by the City with the intent to purchase goods, services or construction. Can be either an Invitation To Bid or a Request For Proposal.

**SWAM:** Small, Women, and Minority-owned businesses.

**SUBCONTRACTOR:** A business entity that has a contract to supply labor or materials to the prime contractor to whom the contract was awarded or to any subcontractor in the performance of the work provided for in such contract.

### **CONDITIONS OF BIDDING**

**BID PRICE CURRENCY:** Unless stated otherwise in the solicitation, bidders/offerors shall state bid/proposal prices in US dollars.

**BID/PROPOSAL ACCEPTANCE PERIOD:** Unless otherwise specified, all bids/proposals submitted shall be binding and may not be withdrawn for sixty (60) days following the bid/proposal opening date and time, unless extended by mutual consent of all parties. If the bid/proposal is not withdrawn at that time it remains in effect until an award is made or the solicitation is cancelled.

**CANCELLATION OF SOLICITATIONS:** **2.2-4319** An ITB, RFP or any other solicitation may be cancelled or rejected, but shall not be cancelled or rejected solely to avoid awarding a contract to a particular responsive and responsible bidder/offeror. The reasons for cancellation shall be made part of the contract file.

**CITY HALL CLOSURE:** If City Hall is closed for business at the time scheduled for the bid opening, for whatever reasons, sealed bid/proposal will be accepted and opened on the next business day of the City, at the original scheduled hour.

**CLARIFICATION of TERMS:** If any prospective bidder/offeror has questions about the specifications or other solicitation documents, the prospective bidder/offeror should contact the person identified in the solicitation no later than five (5) business days before the due date. Any revisions to the solicitation will be made only by addendum issued by the City.

**CONFLICT OF INTEREST/COLLUSION:** Contractor certifies by signing their bid/proposal submission to the City, that no conflict of interest or collusion exists between the Contractor and City that interferes with fair competition and no conflict of interest or collusion exists between Contractor and any other person or organization that constitutes a conflict of interest with respect to the contract with the City.

**DEBARMENT STATUS:** By signing their bid/proposal, the bidders/offerors certify that they are not currently debarred from submitting bids/proposals on contracts from any agency, public entity/locality or authority of the Commonwealth of Virginia.

**DISCRIMINATION PROHIBITED:** **2.2-4310** In the solicitation or awarding of a contract the City shall not discriminate against a bidder/offeror because of race, religion, color, sex, national origin, age, disability, status as a service disabled veteran, or any other basis prohibited by state law relating to discrimination in employment. The City encourages the participation of SWAM and Veteran-Owned businesses (as defined in 2.2-4310(F) in public procurement activities. Towards that end, the City encourages contractors to provide for the participation of SWAM/Veteran-Owned businesses through partnerships, joint ventures, subcontracts, and other contractual opportunities.

**ERRORS IN BIDS/PROPOSALS:** When an error is made in extending total prices, the unit price will govern. Bidders/Offerors are cautioned to recheck their bids/proposals for possible errors prior to submission.

**ETHICS IN PUBLIC CONTRACTING: 2.2-4371** By submitting their bids/proposals, the bidders/offerors certify that their bids/proposals are made without collusion or fraud and that they have not offered or received any kickbacks or inducements from any other bidder/offeror, supplier, manufacturer or subcontractor in connection with their bid/proposal, and that they have not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal or minimal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

**EXCUSABLE DELAY:** The City shall not be in default of any failure in performance of this agreement in accordance with its terms if such failure arises out of causes beyond its reasonable control and without the fault of or negligence of the City. Such causes may include, but are not restricted to acts of God or the public enemy, fires, flood, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather, but in every case the failure to perform must be beyond the reasonable control and without the fault or negligence of the City.

**LICENSES, PERMITS and FEES:** All proposals submitted shall have included in price the cost of any business or professional licenses, permits or fees required by the City of Harrisonburg or the Commonwealth of Virginia. At or prior to delivery of the signed contract, the bidder/offeror to whom the contract is awarded shall deliver to the City a copy of their City Business License (if applicable). The bidder/offeror shall ensure that the Business License indicates a basis amount equal to or greater than the awarded Contract value. For information on City Business Licenses contact the Harrisonburg Commissioner of the Revenue's office at 540-432-7704. The bidder/offeror must have all necessary licenses to perform the services in the Commonwealth of Virginia and, if practicing as other than an individual, be authorized to do business in the Commonwealth of Virginia.

**MANDATORY USE of CITY FORMS AND TERMS and CONDITIONS for ITBs AND RFPs:** Failure to submit a bid/proposal on the official City form(s) provided or in the format identified, for that purpose shall be a cause for rejection of the bid/proposal. Unauthorized modification of or additions to any portion of the ITB or RFP may be cause for rejection of the bid/proposal. The City reserves the right to decide, on a case by case basis, in its sole discretion, whether to reject any bid/proposal which has been modified. As a precondition to its acceptance of an ITB response, the City may, in its sole discretion, request that the bidder withdraw or modify nonresponsive portions of a bid which do not affect quality, quantity, price, or delivery. No modification to the provisions of the contract shall be effective unless the modification is incorporated into the contract document.

**MODIFICATION & WITHDRAWAL OF BIDS/PROPOSALS: 2.2-4330**

1. A bidder for a public construction contract, other than a contract for construction or maintenance of public highways, may withdraw his bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake in the bid, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn.

If a bid contains both clerical and judgment mistakes, a bidder may withdraw his bid from consideration if the price bid would have been substantially lower than the other bids due solely to the clerical mistake, that was an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid that shall be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn.

2. The bidder shall give notice in writing of his claim of right to withdraw his bid within two business days after the conclusion of the bid opening procedure and shall submit original work papers with such notice.
3. No bid shall be withdrawn under this section when the result would be the awarding of the contract on another bid of the
4. If a bid is withdrawn in accordance with this section, the lowest remaining bid shall be deemed to be the low bid.
5. No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor to or perform any subcontract or other work agreement for indirectly, from the performance of the project for which the withdrawn bid was submitted.
6. \_\_\_\_\_ts decision regarding the bidder's request to withdraw its bid. If the public body denies the withdrawal of a bid under the provisions of this section, it shall state in such notice the reasons for its decision and award the contract to such bidder at the bid price, provided such bidder is a responsible and responsive bidder. At the same time that the notice is provided, the public body shall return all work papers and copies thereof that have been submitted by the bidder.
7. These procedures also apply for the withdrawal of bids for other than construction contracts.
8. A bidder/offeror may modify or withdraw his bid/proposal, either personally or by written request to the Purchasing office at any time prior to the scheduled time for opening of bids/proposals.

**PUBLIC INSPECTION OF CERTAIN RECORDS: 2.2-4342** Public inspection of all records is strictly governed by Code of Virginia 2.2-4342 and in accordance with the Virginia Freedom of Information Act (VA Code 2.2-3700 et seq). Any inspection of procurement transactions shall be subject to reasonable restrictions to ensure the security and integrity of the records. Cost estimates relating to a proposed procurement transaction prepared by or for a public body shall not be open to public inspection.

**REVISIONS to the OFFICIAL ITB/RFP:** No bidder/offeror shall modify, revise, edit or make any unauthorized change(s) to the original official ITB/RFP. The official solicitation document and the Addenda(um) are the documents posted on the City of Harrisonburg's web site, [www.harrisonburgva.gov/bids-proposals](http://www.harrisonburgva.gov/bids-proposals). Any such violation as stated above may result in rejection of the ITB/RFP response. In addition, violations may result in the debarment of the bidder/offeror by the City of Harrisonburg.

**TAXES:** Sales to the City of Harrisonburg are normally exempt from State sales tax. Virginia Sales and Use Tax Certificate of Exemption, Form ST-12, will be issued upon request. The City may also be exempt from other taxes and fees.

## **AWARD**

### **CONTRACT AWARD**

For ITB: The award(s) made in response to an ITB will be made to the lowest responsive and responsible bidder(s) for each item, or group of items indicated in the bid. The City reserves the right to make the sole determination of whether the product and/or options offered meet the minimum specifications and is acceptable in accordance with the specifications. The City's decision shall be final. The City reserves the right to make a separate award for each item, a group of items or all items, and to make awards either in whole or in part, whichever is deemed by the City to be in its best interest. Delivery time lines may be a factor in making an award.

For RFP: The award(s) made in response to an RFP will be made to the highest qualified offeror whose proposal is determined to be the most advantageous to the City, taking into consideration the evaluation criteria set forth in the RFP. After negotiations, the offeror who has made the best proposal and provides the best value shall be awarded the contract.

Professional services shall be procured and awarded by competitive negotiation as set forth in **2.2-4302.2 A 4**.

The City reserves the right to cancel a solicitation at any time and to reject any or all bids/proposals, in whole or in part, to waive any informality and to delete items prior to making the award(s), whenever it is deemed in the sole opinion of the City to be in its best interest.

**PRECEDENCE of TERMS:** General Terms and Conditions shall apply in all instances with the exceptions for projects funded by the Federal Highway Administration (FHWA) and by the Federal Transportation Administration (FTA). In the event there is a conflict between the General Terms and Conditions and any Federal, Special, Standard, or Supplementary Terms and Conditions in this solicitation, the Federal, Special, Standard, or Supplementary Terms and Conditions shall apply.

**QUALIFICATIONS of BIDDERS/OFFERORS:** The City may make such reasonable investigations as deemed proper and necessary to determine the responsibility and ability of the bidder/offeror to perform the services/furnish the goods and the bidder/offeror shall furnish to the City all such information and data for this purpose as may be requested. The City reserves the right to inspect bidder's/offeror's physical facilities prior to award to satisfy questions regarding the bidder's/offeror's capabilities. The City further reserves the right to reject any bid/proposal if the evidence submitted by, or investigations of, such bidder/offeror fails to satisfy the City that such bidder/offeror is properly qualified to carry out the obligations of the contract and to provide the services and/or furnish the goods contemplated therein.

**SELECTION PROCESS/NOTICE OF AWARD:** Upon the award or the announcement of the decision to award a contract as a result of this solicitation, the Purchasing office will publicly post such notice and/or will notify all responsive bidders/offerors. The City posts all Notice of Awards on its website at [www.harrisonburgva.gov/bids-proposals-award-notifications](http://www.harrisonburgva.gov/bids-proposals-award-notifications) and also on eVA at [www.eva.virginia.gov](http://www.eva.virginia.gov).

## **CONTRACT PROVISIONS**

**ANTI-DISCRIMINATION: 2.2-4311** By submitting their bids/proposals, bidders/offerors certify to the City that they will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment

Contracting Act of 1975, as amended, where applicable, the Virginians With Disabilities Act, the Americans With Disabilities Act.

In every contract over \$10,000 the provisions below apply:

1. During the performance of this 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 any 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.
  - b. The contractor, in all 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 these requirements.
2. The contractor will include the provisions of 1. above in every subcontract or purchase order over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

**ANTITRUST:** By entering into a contract, the contractor conveys, sells, assigns, and transfers to the City all rights, title and interest in and to all causes of action it may now have or hereafter acquire under the antitrust laws of the United States and the Commonwealth of Virginia, relating to the particular goods or services purchased or acquired by the City under said contract.

**APPLICABLE LAWS and COURTS:** This solicitation and any resulting contract shall be governed in all respects by the laws of the Commonwealth of Virginia, excluding its conflict of laws provisions, and venue for litigation with any respect thereto shall be proper only in the Circuit Court of Rockingham County, Virginia. The contractor shall comply with all applicable federal, state and local laws, rules and regulations.

**ASSIGNMENT of CONTRACT:** A contract shall not be assignable by the contractor in whole or in part without the written consent of the City.

**CHANGES to the CONTRACT:** Changes can be made to the contract in any of the following ways:

1. The parties by mutual agreement in writing, to modify the terms, conditions or scope of the contract subject to item 2. below. Any additional goods or services to be provided shall be of a sort that is ancillary to the contract goods or services, or within the same broad product or service categories as were included in the contract award. Any increase or decrease in the price of the contract resulting from such modification shall be agreed to by the parties as a part of their written agreement to modify the scope of the contract.
2. A public contract may include provisions for modification of the contract during performance, but no fixed-price contract may be increased by more than twenty-five percent (25%) of the amount of the contract or \$50,000, whichever is greater, without the advance written approval of the Harrisonburg City Council. In no event may the amount of any contract, without adequate consideration, be increased for any purpose, including, but not limited to, relief of a bidder/offeror from the consequences of an error in its (bid/offer). **2.2-4309**
3. The Procurement Manager (or City delegated agent) may order changes within the general scope of the contract at any time by written notice to the contractor. Changes within the scope of the contract include, but are not limited to, things such as services to be performed, the method of packing or shipment, and the place of delivery or installation. The contractor shall comply with the notice upon receipt unless the contractor intends to claim an adjustment to compensation, schedule, or other contractual impact that would be caused by complying with such notice, in which case the contractor shall, in writing, promptly notify the City of the adjustment to be sought, and before proceeding to comply with the notice, shall await the City's written decision affirming, modifying, or revoking the prior written notice. If the City decides to issue a notice that requires an adjustment to compensation, the contractor shall be compensated for any additional costs incurred as the result of such order and shall give the City a credit for any savings. Said compensation shall be determined by one of the following methods:
  - a. By mutual agreement between the parties in writing; or
  - b. By agreeing upon a unit price or using a unit price set forth in the contract, if the work to be done can be expressed in units, and the contractor accounts for the number of units of work performed, subject to the City's right to audit the contractor's records and/or to determine the correct number of units independently; or
  - c. By ordering the contractor to proceed with the work and keep a record of all costs incurred and savings realized. A markup for overhead and profit may be allowed if provided by the contract. The same markup shall be used for determining a decrease in price as the result of savings realized. The contractor shall present the City with all vouchers and records of expenses incurred and savings realized. The City shall have the right to audit the records of the contractor as it deems necessary to determine costs or savings. Any claim for an adjustment in price under this provision must be asserted by written notice to the City within thirty (30) days from the date of receipt of the written order from the City. If the parties fail to agree on an amount of adjustment, the question of an increase or decrease in the contract price or time for performance shall be resolved in accordance with the procedures for resolving disputes provided by the Disputes

Clause of this contract or, if there is none, in accordance with the disputes provisions of the City of Harrisonburg Purchasing and Contracting Policy Manual. Neither the existence of a claim nor a dispute resolution process, litigation or any other provision of this contract shall excuse the contractor from promptly complying with the changes ordered by the City or with the performance of the contract generally.

**CONTRACT EXECUTION:** Per City Code (Sec 3-1-2, 3-1-1), the City Manager and the Deputy City Manager shall have authority to execute all contracts and agreements on behalf of the City except as otherwise directed by the Harrisonburg City Council in specific instances.

**CONTRACTUAL DISPUTES:** Contractual claim procedures shall be as per Code of VA **2.2-4363**.

**COOPERATIVE PROCUREMENT:** **2.2-4304** Except as prohibited by the current Code of Virginia 2.2-4304, all resultant contracts will be extended, with the authorization of the contractor, to other public bodies to permit their ordering of supplies and/or services at the prices and terms of the resulting contract. If any other public body decides to use the final contract, the Contractor must deal directly with that public body concerning the placement or orders, issuance of the purchase order, contractual disputes, invoicing and payment. The City acts only as the "Contracting Officer" for these public bodies. Any resulting contract with other public bodies shall be governed by the laws of that specific entity. It is the Contractor's responsibility to notify the public bodies of the availability of the contract. The City shall not be held liable for any costs or damage incurred by another public body as a result of any award extended to that public body by the Contractor.

**DEFAULT:** In case of failure to deliver goods or services in accordance with the contract terms and conditions, the City, after due oral or written notice, may procure items of a comparable quality from other sources and hold the contractor responsible for any resulting additional costs above the contract price when purchases are made in the open market. This remedy shall be in addition to any other remedies, which the City may have.

**DRUG-FREE WORKPLACE:** **2.2-4312** During the performance of this contract, the contractor agrees to: (i) provide a drug-free workplace for the contractor's employees; (ii) 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; (iii) 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 (iv) 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.

**IMMIGRATION REFORM and CONTROL ACT OF 1986:** **2.2-4311.1** By submitting their bids/proposals, bidders/offerors certify that they do not and will not during the performance of this contract employ illegal alien workers or otherwise violate the provisions of the federal Immigration Reform and Control Act of 1986.

**INDEMNIFICATION:** Contractor agrees to indemnify, defend and hold harmless the City, its officers, agents, volunteers, and employees from any claims, damages and actions of any kind or nature, whether at law or in equity, arising from or caused by the use of any materials, goods, or equipment of any kind or nature furnished by the contractor/any services of any kind or nature furnished by the contractor, provided that such liability is not attributable to the sole negligence of the using agency or to failure of the using agency to use the materials, goods, or equipment in the manner already and permanently described by the contractor on the materials, goods or equipment delivered.

**INSURANCE:** By signing and submitting a bid/proposal under this solicitation, the bidder/offeror certifies that if awarded the contract, it will have insurance coverages per the solicitation document at the time of contract execution. For construction contracts, if any subcontractors are involved, the subcontractor will have workers' compensation insurance in accordance with **2.2-4332** and **65.2-800** et seq. of the Code of Virginia. The bidder/offeror further certifies that the contractor and any subcontractors will maintain these insurance coverages during the entire term of the contract and that all insurance coverages will be provided by insurance companies authorized to sell insurance in Virginia by the Virginia State Corporation Commission.

**LIABILITY AND LITIGATION:** The City shall not indemnify or hold harmless any contractor or other third party. The City does not waive any right or release any party from liability, whether on its own behalf or on behalf of any boards, employees or agents. The City does not waive the right to trial by jury for any cause of action arising from the contract and shall not submit any contract claim to binding arbitration or mediation. The City shall not be liable to contractor for any special, punitive or exemplary damages arising from the performance of the contract, including, but not limited to, incidental damages, and lost profit and lost wages, even if such special damages are reasonably foreseeable. Any provision(s) in the contract contrary to these statements is/are hereby deleted and rendered void.

**NONDISCRIMINATION OF CONTRACTORS: 2.2-4343.1H** A bidder, offeror, or contractor shall not be discriminated against in the solicitation or award of this contract because of race, religion, color, sex, national origin, age, disability, faith-based organizational status, any other basis prohibited by state law relating to discrimination in employment or because the bidder or offeror employs ex-offenders unless the state agency, department or institution has made a written determination that employing ex-offenders on the specific contract is not in its best interest. If the award of this contract is made to a faith-based organization and an individual, who applies for or receives goods, services, or disbursements provided pursuant to this contract objects to the religious character of the faith-based organization from which the individual receives or would receive the goods, services, or disbursements, the public body shall offer the individual, within a reasonable period of time after the date of his objection, access to equivalent goods, services, or disbursements from an alternative provider.

**PAYMENT: 2.2-4352 – 2.2-4354**

1. **To Prime Contractor:**

Invoices for items ordered, delivered and accepted shall be submitted by the contractor directly to the payment address shown on the purchase order/contract. Any payment terms requiring payment in less than 45 days will be regarded as requiring payment 45 days after invoice or delivery, whichever occurs last. This shall not affect offers of discounts for payment in less than 45 days, however. All goods or services provided under this contract or purchase order, that are to be paid for with public funds, shall be billed by the contractor at the contract price.

The following shall be deemed to be the date of payment: the date of postmark in all cases where payment is made by mail, or the date of offset when offset proceedings have been instituted as authorized under the Virginia Debt Collection Act. Individual contractors shall provide their social security numbers, and proprietors, partnerships, and corporations shall provide the City with a federal employer identification number, prior to receiving any payment from the City. The City requires an updated IRS Form W-9 be filed with the Purchasing Office at or before the contract is signed.

**Unreasonable Charges:** Under certain emergency procurements and for most time and material purchases, final job costs cannot be accurately determined at the time orders are placed. In such cases, contractors should be put on notice that final payment in full is contingent on a determination of reasonableness with respect to all invoiced charges. Charges which appear to be unreasonable will be researched and challenged, and that portion of the invoice held in abeyance until a settlement can be reached. Upon determining that invoiced charges are not reasonable, the City shall promptly notify the contractor, in writing, as to those charges which it considers unreasonable and the basis for the determination. A contractor may not institute legal action unless a settlement cannot be reached within thirty (30) days of notification.

The provisions of this section do not relieve the City of its prompt payment obligations with respect to those charges which are not in dispute (**2.2.4363**).

2. **To Subcontractors:**

A contractor awarded a contract under this solicitation is hereby obligated to pay the subcontractor(s) within seven (7) days of the contractor's receipt of payment from the City for the proportionate share of the payment received for work performed by the subcontractor(s) under the contract; or;

Notify the City and the subcontractor(s), in writing, of the contractor's intention to withhold payment and the reason.

The contractor is obligated to pay the subcontractor(s) interest at the rate of one percent per month (unless otherwise provided under the terms of the contract) on all amounts owed by the contractor that remain unpaid seven (7) days following receipt of payment from the City, except for amounts withheld as stated in (2) above. The date of mailing of any payment by U. S. Mail is deemed to be payment to the addressee. These provisions apply to each sub-tier contractor performing under the primary contract. A contractor's obligation to pay an interest charge to a subcontractor may not be construed to be an obligation of the City. Any such contract awarded shall further require the contractor to 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. A contractor's obligation to pay an interest charge to a subcontractor may not be construed to be an obligation of the City.

**SAFETY and OSHA STANDARDS:** All parties performing services for the City shall comply with all Occupational Safety and Health Administration (OSHA), State Occupational Health Standards, and any other applicable rules and regulations. All parties shall be held responsible for the training, supervision, and safety of their employees. Any unsafe acts or hazardous conditions that may cause injury or damage to any persons or property within and around the work site areas under this contract shall be remedied per the regulatory agency's guidelines.

**STATE CORPORATION COMMISSION IDENTIFICATION NUMBER:** Pursuant to Code of Virginia **2.2-4311.2** subsection B, a bidder/offeror organized or authorized to transact business in the Commonwealth pursuant to Title 13.1 or Title 50 is required to include in its bid/proposal the identification number issued to it by the State Corporation Commission (SCC) and shall not allow the identification number to lapse, be revoked or cancelled at any time during the term of the contract. Any

bidder/offeror that is not required to be authorized to transact business in the Commonwealth as a foreign business entity under Title 13.1 or Title 50 or as otherwise required by law is required to include in its bid/proposal a statement describing why the bidder/offeror is not required to be so authorized. A link to the SCC site is at <http://www.scc.virginia.gov>.

**TERMINATION:** Subject to the provisions below, the contract may be terminated by the City upon thirty (30) days advance written notice to the other party. Any contract cancellation notice shall not relieve the contractor of the obligation to deliver and perform on all outstanding orders issued prior to the effective date of cancellation.

1. **Termination for Convenience:** In the event that the contract is terminated upon request and for the convenience of the City, without the required thirty (30) days advance notice, then the City shall be responsible for payment of services up to the termination date.
2. **Termination for Cause:** Termination by the City for cause, default or negligence on the part of the contractor shall be excluded from the foregoing provision; termination costs, if any shall not apply. However, the City may hold the contractor responsible for any resulting additional purchase and administrative costs. The thirty (30) day advance notice requirement is waived in the event of Termination for Cause.
3. **Termination Due to Unavailability of Funds:** Agreements are made subject to the appropriation of funds (including grant funds, gifts or donations) by the Harrisonburg City Council and are null and void in the event of non-appropriation by the City Council. Non-appropriation of funds shall not be deemed a cancellation and shall terminate this agreement without recourse and with no liability on the part of the City.

### **SPECIFICATIONS**

**CONDITION OF ITEMS:** Unless otherwise specified in the solicitation, all items shall be new, latest edition/model in first class condition.

**FORMAL SPECIFICATIONS:** When a solicitation contains a specification which states no substitutes, no deviation therefrom will be permitted and the bidder will be required to furnish articles in conformity with that specification.

**USE OF BRAND NAMES: 2.2-4315** Unless otherwise provided in this solicitation, the name of a certain brand, make or manufacturer does not restrict bidders/offerors to the specific brand, make or manufacturer named, but conveys the general style, type, character, and quality of the article desired. Any article which the public body, in its sole discretion, determines to be the equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted. The bidder/offeror is responsible to clearly and specifically identify the product being offered and to provide sufficient descriptive literature, catalog cuts and technical detail to enable the City to determine if the product offered meets the requirements of the solicitation. This is required even if offering the exact brand, make or manufacturer specified. Normally in competitive sealed bidding only the information furnished with the bid will be considered in the evaluation. Failure to furnish adequate data for evaluation purposes may result in declaring a bid nonresponsive. Unless the bidder/offeror clearly indicates in its bid/proposal that the product offered is an "equal" product, such bid/proposal will be considered to offer the brand name product referenced in the solicitation. The City reserves the right to determine the suitability of substituted items for those specified and to accept in whole or in part any and all bids/proposals received.

### **DELIVERY**

**DEFECTS OR IMPROPRIETIES:** In instances where there is a defect or impropriety in an invoice or in the goods or services received, the City shall notify the supplier of the defect or impropriety, if the defect or impropriety would prevent payment by the payment date. The notice shall be sent within (30) thirty days after receipt of the invoice or the goods or services.

**TESTING AND INSPECTION: 2.2-4302.1** The City reserves the right to conduct any test/inspection it may deem advisable to assure goods and services conform to the specifications. Materials or components that have been rejected by the City, in accordance with the terms of the contract, shall be replaced by the Contractor at no cost to the City.

**TRANSPORTATION AND PACKAGING:** All materials shipped to the City must be shipped Free On Board (FOB) Destination unless otherwise stated in the contract. By submitting their bids/proposals, all bidders/offerors certify and warrant that the price offered for FOB destination includes only the actual freight rate costs at the lowest and best rate and is based upon the actual weight of the goods to be shipped. Except as otherwise specified herein, standard commercial packaging, packing and shipping containers shall be used. All shipping containers shall be legibly marked or labeled on the outside with purchase order number, commodity description, and quantity.

**0401 ESCROW ACCOUNT ELECTION**

**ELECTION OF ESCROW ACCOUNT PROCEDURE FOR RETAINAGE**

If determined to be the successful low bidder(s), the below signed elects to use the Escrow Account Procedure for retainage.

\_\_\_\_\_

Write "Yes" or "No" on above line

If the successful bidder elects to use the Escrow Account Procedure for Retainage, an "Escrow Agreement" form will be provided by the City and shall be executed and submitted to the City within fifteen (15) calendar days after notification. If the "Escrow Agreement" form is not submitted within the fifteen (15) day period, the Contractor shall forfeit his rights to the use of the Escrow Account Procedure.

Company\_\_\_\_\_

Authorized Signature\_\_\_\_\_

0401 ESCROW AGREEMENT  
CITY OF HARRISONBURG, VIRGINIA

THIS AGREEMENT ("Agreement"), made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by, between and among the City of Harrisonburg, Virginia ("City" or Owner"), \_\_\_\_\_ ("Contractor"), \_\_\_\_\_ (Name of Escrow Agent) \_\_\_\_\_ (Address of Escrow Agent) a trust company, bank, or savings and loan institution (hereinafter referred to collectively as "Escrow Agent") with its principal office located in the Commonwealth of Virginia ("Commonwealth") and \_\_\_\_\_ ("Surety") provides:

I.

The City and the Contractor have entered into a contract dated \_\_\_\_\_ with respect to City of Harrisonburg ITB No. \_\_\_\_\_, for \_\_\_\_\_ ("Contract"). This Agreement is pursuant to, but in no way amends or modifies, the Contract. Payments made hereunder or the release of funds from escrow shall not be deemed approval or acceptance of performance by the Contractor. Payments should be made to \_\_\_\_\_ and mailed to \_\_\_\_\_ (Name and Address of Escrow Agent).

II.

In order to assure full and satisfactory performance by the Contractor of its obligations under the Contract, the City is required thereby to retain certain amounts otherwise due the Contractor. The Contractor has, with the approval of the City, elected to have these retained amounts held in escrow by the Escrow Agent. This agreement sets forth the terms of the escrow. The Escrow Agent shall not be deemed a party to, bound by, or required to inquire into the terms of the Contract or any other instrument or agreement between the City and the Contractor.

III.

The City shall from time to time pursuant to the Contract pay to the Escrow Agent amounts retained by it under the Contract. Except as to amounts actually withdrawn from escrow by the City, the Contractor shall look solely to the Escrow Agent for the payment of funds retained under the Contract and paid by the City to the Escrow Agent.

The risk of loss by diminution of the principal of any funds invested under the terms of the Contract shall be solely upon the Contractor.

Funds and securities held by the Escrow Agent pursuant to this Escrow Agreement shall not be subject to levy, garnishment, attachment, lien, or other process whatsoever. Contractor agrees not to assign, pledge, discount, sell or otherwise transfer or dispose of his interest in the escrow account or any part thereof, except to the Surety.

IV.

Upon receipt of checks drawn by the City and made payable to the Escrow Agent under this agreement, the Escrow Agent shall promptly notify the Contractor, negotiate the same and deposit or invest and reinvest the proceeds in approved securities in accordance with the written instructions of the Contractor. In no event shall the Escrow Agent invest the escrowed funds in any security not approved, as set forth in Section V. below.

## V.

The following securities, and none other, are approved securities for all purposes of this Agreement:

- (1) United States Treasury Bonds, United States Treasury Notes, United States Treasury Certificates of Indebtedness or United States Treasury Bills,
- (2) Bonds, notes and other evidences of indebtedness unconditionally guaranteed as to the payment of principal and interest by the United States,
- (3) Bonds or notes of the Commonwealth of Virginia,
- (4) Bonds of any political subdivision of the Commonwealth of Virginia, if such bonds carried, at the time of purchase by the Escrow Agent or deposit by the Contractor, a Standard and Poor's or Moody's Investor Service rating of at least "A", and
- (5) Certificates of deposit issued by commercial Banks located within the Commonwealth of Virginia, including, but not limited to, those insured by the Escrow Agent and its affiliates.
- (6) Any bonds, notes, or other evidences of indebtedness listed in Sections (1) through (3) may be purchased pursuant to a repurchase agreement with a bank, within or without the Commonwealth of Virginia having a combined capital, surplus and undivided profit of not less than \$25,000,000, provided the obligation of the bank to repurchase is within the time limitations established for investments as set forth herein. The repurchase agreement shall be considered a purchase of such securities even if title, and/or possession of such securities is not transferred to the Escrow Agent, so long as the repurchase obligation of the bank is collateralized by the securities themselves, and the securities have on the date of the repurchase agreement a fair market value equal to at least 100% of the amount of the repurchase obligation of the bank, and the securities are held by a third party, and segregated from other securities owned by the bank.

No security is approved hereunder which matures more than five (5) years after the date of its purchase by the Escrow Agent or deposit by the Contractor.

## VI.

The Contractor may from time to time withdraw the whole or any portion of the escrowed funds by depositing with the Escrow Agent approved securities as set forth in Section V. above in an amount equal to, or in excess of, the amount so withdrawn. Any securities so deposited or withdrawn shall be valued at such time of deposit or withdrawal at the lower of par or market value, the latter as determined by the Escrow Agent. Any securities so deposited shall thereupon become a part of the escrowed fund.

Upon receipt of a direction signed by the City of Harrisonburg Director of Finance or designee, the Escrow Agent shall pay the principal of the fund, or any specified amount thereof, to the City or the Contractor as the City may direct. If payment is to be made to the Harrisonburg City Treasurer, it shall be made in cash or cash equivalent. However, if payment has been authorized to be made to the Contractor, the Contractor may specify to the Escrow Agent if payment is to be made in cash or in kind. Any such payment and delivery required hereunder shall be made as soon as is practicable after receipt of the direction.

## VII.

For its services hereunder, the Escrow Agent shall be entitled to a reasonable fee in accordance with its published schedule of fees or as may be agreed upon by the Escrow Agent and the Contractor. Such fee and any other costs of administration of this Agreement shall be paid from the income earned upon the escrowed fund and, if such income is not sufficient to pay the same, by the Contractor.

VIII.

The net income earned and received upon the principal of the escrowed fund shall be paid over to the Contractor in quarterly or more frequent installments. Until so paid or applied to pay the Escrow Agent's fee or any other costs of administration, such income shall be deemed a part of the principal of the fund.

IX.

The Surety undertakes no obligation hereby but joins in this Agreement for the sole purpose of acknowledging that its obligations as surety for the Contractor's performance of the contract are not affected hereby.

X.

This Escrow Agreement shall be governed by, and construed in accordance with, the laws of the Commonwealth of Virginia, without application of Virginia's conflict of law provisions. Venue and any actions for any litigation, suits, and claims arising from or connected with this Escrow Agreement and/or Contract referred to herein shall only be proper in the Rockingham County Circuit Court, or in the Rockingham County General District Court if the amount in controversy is within the jurisdictional limit of such court, and all parties to this Escrow Agreement and/or such Contract voluntarily submit themselves to the jurisdiction and venue of such courts, regardless of the actual location of such parties.

**SIGNATURE PAGE TO FOLLOW**

IN WITNESS WHEREOF, the parties hereto have signed this Escrow Agreement by their authorized representatives.

Attest: (if corporation)  
Witness: (if individual)

\_\_\_\_\_

\_\_\_\_\_  
Typed Name of Contractor

\_\_\_\_\_  
President/Vice-President;  
Partner or Owner (Seal

Attest:

\_\_\_\_\_  
Bank Officer

\_\_\_\_\_  
Typed Name of Escrow Agent

\_\_\_\_\_  
Vice President

Witness:

\_\_\_\_\_

\_\_\_\_\_  
Typed Name of Surety Company

By: \_\_\_\_\_  
Attorney-In-Fact

Attest:

\_\_\_\_\_  
City Clerk

City of Harrisonburg, Virginia

\_\_\_\_\_  
City Manager/Deputy City Manager

Approved as to form:

\_\_\_\_\_  
City Attorney

Approved as to execution:

\_\_\_\_\_  
City Attorney

## **0501 AGREEMENT**

This AGREEMENT is dated as of the \_\_\_ day of \_\_\_\_\_ in the year 20\_\_ between the City of Harrisonburg, Virginia (hereinafter called OWNER) and \_\_\_\_\_ (hereinafter called CONTRACTOR). OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

### **ARTICLE 1. WORK**

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents for the project titled City of Harrisonburg, Virginia, Martin Luther King, Jr. Way Widening Project. The Work is generally described as follows:

Construction of sidewalk, multi-use trail, CG-6 curb & gutter, median, CG-12 detectible warning surface, concrete entrances, retaining wall, traffic signal upgrades, pedestrian signal work, together with all appurtenances, utility relocations and incidental items required to complete the work.

### **ARTICLE 2. CONTRACT ADMINSTRATOR**

This Project has been designed by Vanasse Hangen Bustlin, Inc. and administered by the Department of Public Works. The Director of Public Works of Harrisonburg, Virginia, or their designee, is hereinafter called CONTRACT ADMINSTRATOR, will assume all duties and responsibilities and will have the rights and authority assigned to CONTRACT ADMINSTRATOR in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

### **ARTICLE 3. CONSTRUCTION TIME AND LIQUIDATED DAMAGES**

3.1 Contract Time shall be Fixed Completion Dates for the various phases of work as follows:

All work shall be completed by December 1, 2017.

3.2 Consideration for time extensions attributable to weather will not be given except as provided for in Section 108.04 of the VDOT Standard Specifications.

3.3 Liquidated Damages shall be in accordance with Section 108 of the VDOT Road and Bridge Specifications.

### **ARTICLE 4. CONTRACT PRICE**

4.1 OWNER shall pay CONTRACTOR for performance of the Work in accordance with the Contract Documents such amounts as required by the Contract Documents.

## **ARTICLE 5. PAYMENT PROCEDURES**

CONTRACTOR shall submit Applications for Payment in accordance with Virginia Department of Transportation's Road & Bridge Specifications. Applications for Payment will be processed by CONTRACT ADMINISTRATOR as provided in the Virginia Department of Transportation's Road & Bridge Specifications.

5.1 Progress Payments. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by CONTRACT ADMINISTRATOR, on or about the 1<sup>st</sup> day of each month during construction as provided below. All Progress Payments will be on the basis of the progress of the Work measured by the schedule of values established in Virginia Department of Transportation's Road & Bridge Specifications.

5.1.1 Prior to completion Progress Payments will be made in an amount equal to:

95% of the Work completed, and

95% of the materials and equipment not incorporated in the Work but delivered and suitably stored less in each case the aggregate of payment previously made.

5.1.2 Upon substantial completion, OWNER shall pay amount sufficient to increase total payments to CONTRACTOR to 98% of the Contract Price, less such amount as CONTRACT ADMINISTRATOR shall determine in accordance with Virginia Department of Transportation's Road & Bridge Specifications.

5.2. Final Payment. Upon final completion and acceptance of the Work in accordance with the Virginia Department of Transportation's Road & Bridge Specifications, OWNER shall pay the remainder of the Contract Price, less 1% retainage for seeding per Supplemental Specification 1004, as recommended by CONTRACT ADMINISTRATOR as provided in said Virginia Department of Transportation's Road & Bridge Specifications.

## **ARTICLE 6. INTEREST**

All monies not paid when due hereunder shall bear interest at maximum rate allowed by law at the place of the Project.

## **ARTICLE 7. CONTRACTOR'S REPRESENTATIONS**

In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

7.1 CONTRACTOR has familiarized himself with the nature and extent of the Contract Documents, Work, locality, and with all local conditions, state and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Work.

7.2 CONTRACTOR has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which were relied upon by CONTRACT ADMINISTRATOR in the preparation of the Drawings and Specifications and which have been identified in the Supplementary Conditions.

7.3 CONTRACTOR has made or caused to be made examinations, investigations and tests and studies of such reports and related data in addition to those referred to in Paragraph 7.2. as he deems necessary for the performance of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examination, investigations, tests, reports or similar data are or will be required by CONTRACTOR for such purposes.

7.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.

7.5 CONTRACTOR has given CONTRACT ADMINISTRATOR written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by CONTRACT ADMINISTRATOR is acceptable to CONTRACTOR.

## **ARTICLE 8. CONTRACT DOCUMENTS**

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR are attached by reference to this Agreement, made a part hereof and consist of the following:

- 8.1 This Agreement (pages 1 to 5, inclusive)
- 8.2 Performance and Payment bonds
- 8.3 Certificate of Insurance and Endorsement
- 8.4 Notice of Award
- 8.5 Notice to Proceed
- 8.6 Federal and State Requirements
- 8.7 Project Manual entitled "Martin Luther King, Jr. Way Widening Project"
- 8.8 Drawings, consisting of a cover sheet and sheets numbered 1 through 67
- 8.9 Signed Addenda
- 8.10 Contractor's Bid
- 8.11 City of Harrisonburg Standard General Terms and Conditions

8.12 Documentation submitted by Contractor prior to Notice of Award.

8.13 Any modifications or change orders, duly delivered after execution of Agreement.

All contract documents must be listed in this article. Contract documents may be altered, amended or repealed only as allowed by the 2016 Virginia Department of Transportation's Road & Bridge Specifications.

## **ARTICLE 9. MISCELLANEOUS**

9.1 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, monies that may become due and monies that are now due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.2 OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

**ARTICLE 10. OTHER PROVISIONS**

IN WITNESS WHEREOF, the parties hereto have signed this Agreement in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR and CONTRACT ADMINISTRATOR. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by CONTRACT ADMINISTRATOR on their behalf.

OWNER: City of Harrisonburg

CONTRACTOR:\_\_\_\_\_

Signature\_\_\_\_\_

Signature\_\_\_\_\_

Name & Title: Kurt Hodgen, City Manager

Name & Title:\_\_\_\_\_

Attest \_\_\_\_\_

Attest\_\_\_\_\_

Address for giving notices:

Address for giving notices:

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

License No. \_\_\_\_\_

END OF AGREEMENT

**0502 NOTICE TO PROCEED**

**DATE:** \_\_\_\_\_

**TO:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Re: City of Harrisonburg**

**PROJECT TITLE:** \_\_\_\_\_

**PROJECT NO:** \_\_\_\_\_

In accordance with the Contract between the City of Harrisonburg and Contractor you are notified that the Time for Completion under the above Agreement will commence to run on \_\_\_\_\_, 20 \_\_\_\_\_. By that date, you are to start performing your obligations under the Contract Documents. In accordance with the Contract between Owner and Contractor, the Work shall be substantially completed within \_\_\_\_\_ calendar days from and after the said date, which is \_\_\_\_\_, 20\_\_\_\_\_.

Before you may start any Work at the site, the City of Harrisonburg requires that you deliver to the City the Certificates of Insurance which the Contractor is required to purchase and maintain in accordance with the Contract Documents.

By \_\_\_\_\_  
Owner Authorized Signature

\_\_\_\_\_  
Name & Title (Print)

## **0800 APPLICATION FOR PAYMENT**

1. Applications for progress payment shall be made on forms identical to those shown on pages 0800-2 and 0800-3. The following application for payment is an excel spreadsheet and will be made available for the contractor's use.
2. A draft of the application for progress payment shall be emailed to the Project Manager and Project Coordinator for review. After review and approval by the City, the contractor shall mail two signed applications for progress payment to: 320 East Mosby Road, Harrisonburg, VA 22801.
3. It shall be the responsibility of the Contractor to supply daily quantities to the Project Manager and Project Coordinator for comparison to the Inspector's quantities. The format shall be agreed upon during the pre-construction meeting.

**0800 APPLICATION AND CERTIFICATE FOR PAYMENT**

To Owner: City of Harrisonburg Project: Application No.:  
 320 E. Mosby Rd. Period To:  
 Harrisonburg, VA 22801 Contract Date:

From Contractor:

		CHANGE ORDER SUMMARY	Additions	Deductions
1. Original Contract Sum	\$			
2. Net Change by Change Order	\$			
3. Contract Sum To Date (line 1 + line 2)	\$			
4. Total Completed and Stored To Date (column G)	\$			
5. Retainage:				
a. ___% of Completed Work (column D + column E)	\$			
b. ___% of Stored Materials (column F)	\$			
6. Total Earned Less Retainage (line 4 less line 5)	\$			
7. Less Previous Applications for Payment	\$			
8. Current Payment Due	\$			
9. Balance to Finish, Plus Retainage	\$			
		<b>Totals</b>		
		<b>Net Changes by Change Order</b>		

The undersigned contractor hereby swears and under penalty of perjury that (1) all previous progress payments received from the owner on account of work performed under the contract referred to above have been applied by the undersigned to discharge in full all obligations of the undersigned incurred in connection with work covered by prior applications for payment under said contract, being Applications for Payment 1 through \_\_\_ inclusive; and (2) all materials and equipment incorporated in said project or otherwise listed in or covered by this application for payment are free and clear of all liens, claims, security and encumbrances.

Signature \_\_\_\_\_ Date \_\_\_\_\_  
 Printed Name \_\_\_\_\_ Title \_\_\_\_\_

State of \_\_\_\_\_ County of \_\_\_\_\_  
 Before me this \_\_\_ day of \_\_\_\_\_, 20\_\_ personally appeared \_\_\_\_\_ known to me, who being duly sworn, did depose and say that he/she is the \_\_\_\_\_ of the contractor above mentioned, that he/she executed the above application for payment on behalf of said contractor and that all of the statements contained herein are true, correct and complete.

Notary Public \_\_\_\_\_ Registration No. \_\_\_\_\_  
 My Commission Expires \_\_\_\_\_

APPLICATION NO.:

PERIOD TO:

PROJECT:

A LINE NO.	B WORK DESCRIPTION	C SCHEDULED VALUE			D COMPLETED WORK PREVIOUS PERIOD		E COMPLETED WORK THIS PERIOD		F STORED MATERIAL (not in D or E)	G TOTAL WORK COMPLETED TO DATE		H BALANCE TO COMPLETION (C-G)		
		Unit	Qty.	Unit Price	Amount	Qty.	Total	Qty.		Total	Qty.		Total	
1	MOBILIZATION	LS	1	\$200.00	\$200.00	0.50	\$100.00	0.50	\$100.00		1.00	\$200.00	100%	\$0.00
2					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
3					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
4					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
5					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
6					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
7					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
8					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
9					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
10					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
11					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
12					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
13					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
14					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
15					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
16					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
17					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
18					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
19					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
20					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
21					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
22					\$0.00				\$0.00		0.00	\$0.00	#DIV/0!	\$0.00
TOTALS					\$200.00				\$100.00			\$200.00		\$0.00

**SECTION 0900**  
**FEDERAL AND STATE REQUIREMENTS**

**INDEX**

Required Contract Provisions (FHWA-1273)	57
Affirmative Action/Equal Employment Opportunity	78
General Decision Wage Rates	84
Use of Disadvantaged Business Enterprises	91
Use of Domestic Material	109
Subcontracting	112
Personnel Requirements for Work Zone Traffic Control	113
Submission and Disposition of Claims	114
Cargo Preference Act	116

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



FHWA-1273 – Revised May 1, 2012

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

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

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

**I. GENERAL**

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

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

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The

design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

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

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.
3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.
4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

## II. NONDISCRIMINATION

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

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

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

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

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

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth

under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre- apprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

- e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

- 4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

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.

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.

The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

- 5. **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

- a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
- b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
- c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
- d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

- 6. **Training and Promotion:**

- a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.
  - b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).
  - c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
  - d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.
7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:
- a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.
  - b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.
  - c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.
  - d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

- 8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.
- 9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.
- a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.
  - b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.
- 10. Assurance Required by 49 CFR 26.13(b):**
- a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.
  - b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.
- 11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.
- a. The records kept by the contractor shall document the following:
    - (1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;
    - (2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and
    - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;
  - b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This

information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### **III. NONSEGREGATED FACILITIES**

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### **IV. Davis-Bacon and Related Act Provisions**

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### **1. Minimum wages**

- a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are

deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

- b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
  - (I) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
  - (II) The classification is utilized in the area by the construction industry; and
  - (II) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

- (4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis- Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

## **2. Withholding**

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

## **3. Payrolls and basic records**

- a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship

programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

- b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee ( e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.
- (2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
- (I) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
- (II) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
- (III) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

- (4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### **4. Apprentices and trainees**

- a. Apprentices (programs of the USDOL).

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

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

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

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

b. Trainees (programs of the USDOL).

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

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

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

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

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

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. **Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
6. **Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
7. **Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
8. **Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
9. **Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.
10. **Certification of eligibility.**
  - a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
  - b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
  - c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

## V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.
3. **Withholding for unpaid wages and liquidated damages.** The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally- assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.
4. **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).
  - a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:
    - (1) the prime contractor maintains control over the supervision of the day-to- day activities of the leased employees;
    - (2) the prime contractor remains responsible for the quality of the work of the leased employees;

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
    - (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.
  - b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.
2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.
3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.
4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.
5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

## **VII. SAFETY: ACCIDENT PREVENTION**

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

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.
2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards

(29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

## **VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

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

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

## **IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

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

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

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

**X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

**1. Instructions for Certification – First Tier Participants:**

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

- f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
- g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.
- h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.
- i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

\* \* \* \* \*

**2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

- a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:
  - (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;
  - (2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local)

transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

- (3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and
- (4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

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

## **2. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred,

suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

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

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
  - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
  - b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

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 working 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 coverer 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 compiled 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 in 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 though 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 or nation 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

<u>Economic Area</u>	<u>Goal (Percent)</u>
Virginia:	
021 Roanoke-Lynchburg, VA	
SMSA Counties:	
4640 Lynchburg, VA .....	19.3
VA Amherst; VA Appomattox; VA Campbell; VA Lynchburg	
6800 Roanoke, VA .....	10.2
VA Botetourt; VA Craig; VA Roanoke; VA Roanoke City; VA Salem	
Non-SMSA Counties .....	12.0
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.	
022 Richmond, VA	
SMSA Counties:	
6140 Petersburg - Colonial Heights - Hopewell, VA .....	30.6
VA Dinwiddie; VA Prince George; VA Colonial Heights; VA Hopewell;	
VA Petersburg.	
6760 Richmond, VA .....	24.9

VA Charles City; VA Chesterfield; VA Goochland, VA Hanover; VA Henrico; VA New Kent; VA Powhatan; VA Richmond.	
Non-SMSA Counties .....	27.9
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 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 Isle 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.	

U.S. DEPARTMENT OF LABOR  
OFFICE OF THE SECRETARY  
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.

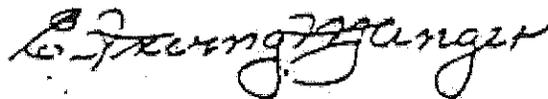
The contracting officer shall require that any class of laborers and mechanics which is not listed in the wage determination and which is to be employed under the contract, shall be classified or reclassified conformably to the wage determination, and a report of the action taken shall be sent by the 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



IRONWORKER, REINFORCING.....\$ 22.71

IRONWORKER, STRUCTURAL.....\$ 24.00

LABORER

Asphalt Raker.....\$ 14.51

Blaster.....\$ 21.80

Construction Worker I  
(Skilled Laborer.....\$ 15.30

Construction Worker II  
(Laborer).....\$ 12.37

Deckhand.....\$ 13.70

Fence Erector.....\$ 12.83

Flagger.....\$ 11.45

Grade Checker.....\$ 15.25

Guardrail Erector.....\$ 13.18

Landscape Worker.....\$ 12.27

Pipe Layer.....\$ 16.75

Power Tool Operator.....\$ 14.00

Sign Erector.....\$ 15.27

PAINTER.....\$ 25.00

POWER EQUIPMENT OPERATOR:

Air Compressor.....\$ 11.75

Asphalt Distributor.....\$ 15.26

Asphalt Paver.....\$ 16.02

Backhoe.....\$ 17.79

Boom/Auger.....\$ 29.00

Bulldozer (Utility).....\$ 15.38

Bulldozer.....\$ 19.36

Concrete Finish Machine  
Screed, Bridge.....\$ 34.60

Concrete Finish Machine.....\$ 34.60

Concrete Paving Machine.....\$ 13.94

Concrete Pump.....\$ 16.45

Concrete Saw.....\$ 22.50

Crane, Derrick, Dragline...\$ 26.68

Crusher Tender.....\$ 17.00

Drill Operator.....\$ 20.00

Excavator (Gradall).....\$ 20.53

Front End Loader.....\$ 19.36

Hydro Seeder.....\$ 16.64

Log Skidder.....\$ 16.00

Mechanic.....\$ 15.89

Mobile Mixer.....\$ 10.45

Motor Grader (Fine Grade)...\$ 26.13

Motor Grader (Rough Grade)..\$ 20.64

Oiler, Greaser.....\$ 19.23

Pavement Marking Operator...\$ 15.44

Pavement Marking Truck  
Operator.....\$ 18.00

Pavement Planing Groundman..\$ 14.04

Pavement Planing Operator...\$ 17.28

Pile Driver, Leadsman.....\$ 21.70

Pile Driver.....\$ 15.00

Pipe Boring/Jacking  
Machine Operator.....\$ 11.00  
Plant Operator.....\$ 13.45  
Roller (Finish).....\$ 13.61  
Roller (Rough).....\$ 15.85  
Scraper Pan.....\$ 12.78  
Shot Blast Machine.....\$ 14.94  
Shovel Operator (2 yds and  
under).....\$ 10.41  
Shovel Operator (over 2  
yds).....\$ 11.50  
Slip-Form Paver.....\$ 9.50  
Slurry Seal Paver Machine  
Operator.....\$ 14.23  
Slurry Seal Paver Truck  
Operator.....\$ 10.43  
Stabilizer Operator.....\$ 9.55  
Stone-Spreader.....\$ 13.54  
Subgrade Machine Operator...\$ 11.50  
Tractor Operator (Crawlers).\$ 14.08  
Tractor Operator (Utility)..\$ 12.25  
Trenching Machine.....\$ 12.00  
Vacuum Machine.....\$ 19.25

TRAFFIC SIGNALIZATION:

Traffic Signal Installation.....\$ 21.91

TRUCK DRIVER

Fuel and Lubricant Service  
Truck Driver.....\$ 16.25  
Transit Mix Truck Driver....\$ 12.25  
Truck Driver (Single,  
Tandem & Multi Rear Axle)...\$ 15.19  
Truck Driver, Heavy Duty  
(7 c.y. & under).....\$ 15.50  
Truck Driver, Heavy Duty  
(over 7 c.y.).....\$ 16.69

WATERPROOFER.....\$ 13.16

WELDER.....\$ 15.76

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

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

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which 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. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of 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. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union

average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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WAGE DETERMINATION APPEALS PROCESS

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

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write 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 the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write 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 by 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

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION



City Modification of

VIRGINIA DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISION FOR  
**SECTION 107.15**

December 10, 2010

**Section 107.15** of the Specifications is replaced by the following:

**Section 107.15—Use of Disadvantaged Business Enterprises (DBEs)**

**A. Disadvantaged Business Enterprise (DBE) Program Requirements**

Any Contractor, subcontractor, supplier, DBE firm, and contract surety involved in the performance of work on a federal-aid contract shall comply with the terms and conditions of the United States Department of Transportation (USDOT) DBE Program as the terms appear in Part 26 of the Code of Federal Regulations (49 CFR as amended), the USDOT DBE Program regulations; and the Virginia Department of Transportation's (VDOT or the Department) Road and Bridge Specifications and DBE Program rules and regulations.

For the purposes of this provision, Contractor is defined as the Prime Contractor of the contract; and sub-contractor is defined as any DBE supplier, manufacturer, or subcontractor performing work or furnishing material, supplies or services to the contract. The Contractor shall physically include this same contract provision in every supply or work/service subcontract that it makes or executes with a subcontractor having work for which it intends to claim credit.

In accordance with 49 CFR Part 26 and VDOT's DBE Program requirements, 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 those federal and state DBE Program regulations. 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 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, 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.

All administrative remedies noted in this provision are automatic unless the Contractor exercises the right of appeal within the required timeframe(s) specified herein. Appeal requirements, processes, and procedures shall be in accordance with guidelines stated herein and current at the time of the proceedings. 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.

All time frames referenced in this provision are expressed in business days unless otherwise indicated. Should the expiration of any deadline fall on a weekend or holiday, such deadline will automatically be extended to the next normal business day.

**B. DBE Certification**

The only DBE firms eligible to perform work on a federal-aid contract for DBE contract goal credit are firms certified as Disadvantaged Business Enterprises by the Virginia Department of Minority

Business Enterprise (DMBE) or the Metropolitan Washington Airports Authority (MWAA) in accordance with federal and VDOT guidelines. DBE firms must be certified in the specific work listed for DBE contract goal credit. A directory listing of certified DBE firms can be obtained from the Virginia Department of Minority Business Enterprise and the Metropolitan Washington Airports Authority Internet websites: <http://www.dmbv.virginia.gov/>; <http://mwaa.com/362.htm>

### **C. 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: <http://insidevdot/C7/Civil%20Rights/default.aspx>

### **D. DBE Program-Related Certifications Made by Bidders\Contractors**

By submitting a bid and by entering into any contract on the basis of that bid, the bidder/Contractor certifies to each of the following DBE Program-related conditions and assurances:

1. That the management and bidding officers of its firm agree to comply with the bidding and project construction and administration obligations of the USDOT DBE Program requirements and regulations of 49 CFR Part 26 as amended, and VDOT's Road and Bridge Specifications and DBE Program requirements and regulations.
2. Under penalty of perjury and other applicable penal law that it has complied with the DBE Program requirements in submitting the bid, and shall comply fully with these requirements in the bidding, award, and execution of the contract.
3. To ensure that DBE firms have been given full and fair opportunity to participate in the performance of the contract. The bidder certifies that all reasonable steps were, and will be, taken to ensure that DBE firms had, and will have, an opportunity to compete for and perform work on the contract. The bidder further certifies that the bidder shall not discriminate on the basis of race, color, age, national origin, or sex in the performance of the contract or in the award of any subcontract. Any agreement between a bidder and a DBE whereby the DBE promises not to provide quotations for performance of work to other bidders is prohibited.
4. As a bidder, good faith efforts were made to obtain DBE participation in the proposed contract at or above the goal for DBE participation established by VDOT. It has submitted as a part of its bid true, accurate, complete, and detailed documentation of the good faith efforts it performed to meet the contract goal for DBE participation. The bidder, by signing and submitting its bid, certifies the DBE participation information submitted within the stated time thereafter is true, correct, and complete, and that the information provided includes the names of all DBE firms that will participate in the contract, the specific line item(s) that each listed DBE firm will perform, and the creditable dollar amounts of the participation of each listed DBE. The specific line item must reference the bid line number and VDOT bid item number contained in the proposal.
5. The bidder further certifies, by signing its bid, it has committed to use each DBE firm listed for the specific work item shown to meet the contract goal for DBE participation. Award of the contract will be conditioned upon meeting these and other listed requirements of 49 CFR Part 26.53 and the contract documents. By signing the bid, the bidder certifies on work that it proposes to subcontract; it has made good faith efforts to seek out and consider DBEs as potential subcontractors. The bidder shall contact DBEs to solicit their interest, capability, and prices in sufficient time to allow them to respond effectively, and shall retain on file proper documentation to substantiate its good faith efforts. Award of the contract will be conditioned upon meeting these and other listed requirements of 49 CFR Part 26.53 and the contract documents.

6. Once awarded the contract, the Contractor shall make good faith efforts to utilize DBE firms to perform work designated to be performed by DBEs at or above the amount or percentage of the dollar value specified in the bidding documents. Further, the Contractor understands it shall not unilaterally terminate, substitute for, or replace any DBE firm that was designated in the executed contract 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 provision.
7. Once awarded the contract, the Contractor shall designate and make known to the City a liaison officer who is assigned the responsibility of administering and promoting an active and inclusive DBE program as required by 49 CFR Part 26 for DBEs. 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.
8. Once awarded the contract, the Contractor shall comply fully with all regulatory and contractual requirements of the USDOT DBE Program, and that each DBE firm 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. Where a contract exists and where the Contractor, DBE firm, or any other firm retained by the Contractor has failed to comply with federal or VDOT DBE Program regulations and/or their requirements on that contract, VDOT has the authority and discretion to determine the extent to which the DBE contract regulations and/or 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.
9. In the event a bond surety assumes the completion of work, if for any reason the City has terminated 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 this specification.

**E. Disqualification of Bidder**

Bidders may be disqualified from bidding for failure to comply with the requirements of this Special Provision, the contract specifications, and VDOT Road and Bridge Specifications.

**F. Bidding Procedures**

The following bidding procedures shall apply to the contract for DBE Program compliance purposes:

1. **Contract Goal, Good Faith Efforts Specified:** All bidders evidencing the attainment of DBE goal commitment equal to or greater than the required DBE goal established for the project shall submit completed Form C-111, Minimum DBE Requirements, and Form C-48, Subcontractor/Supplier Solicitation and Utilization, as a part of the bid documents. These forms must be received with the bid proposed at the specified time of bid receipt.

If, at the time of submitting its bid, the bidder knowingly cannot meet or exceed the required DBE contract goal, it shall submit Form C-111 exhibiting the DBE participation it attained as a part of its bid documents along with completed Form(s) C-49, Sheets 1 through 10 of 10, and other appropriate supporting documentation demonstrating its good faith efforts to meet the DBE requirements. **The lowest responsive and responsible bidder must submit it's properly executed Form C-112 within two (2) business days after the bids have been opened and the determination of apparent lowest bidder.** DBEs bidding as prime contractors are not required to submit Form C-112 unless they are utilizing other DBEs as subcontractors.

If, after review of the apparent lowest bid, VDOT determines the DBE requirements have not been met, the apparent lowest successful bidder must submit Form C-49, DBE Good Faith Efforts Documentation, which must be received by the Contract Engineer within two (2) business days after official notification of such failure to meet the aforementioned DBE requirements.

Forms C-48, C-49, C-111, and C-112 can be obtained from the VDOT website at:  
<http://vdotforms.vdot.virginia.gov/>

Instructions for submitting Form C-111 can be obtained from the VDOT website at:  
[http://www.virginiadot.org/business/resources/const/Exp\\_DBE\\_Commitments.pdf](http://www.virginiadot.org/business/resources/const/Exp_DBE_Commitments.pdf)

2. **Bid Rejection:** The failure of a bidder to submit the required documentation within the timeframes specified in the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision will be cause for rejection of that bidder's bid.

If the lowest bidder is rejected for failure to submit the required documentation in the specified time frames, the City of Harrisonburg may award the work to the next lowest bidder, or re-advertise the proposed work at a later date or proceed otherwise as determined by the Commonwealth.

3. **Good Faith Efforts Described:** In order to award a contract to a bidder that has failed to meet DBE contract goal requirements, the City of Harrisonburg will determine if the bidder's efforts were adequate good faith efforts, and if given all relevant circumstances, those efforts were made actively and aggressively to meet the DBE requirements. 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 Program and contract goal requirements.

Good faith efforts may be determined through use of the following list of the types of actions the bidder may make 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:

- (a) 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.
- (b) 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;
- (c) 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;
- (d) Negotiating for participation in good faith with interested DBEs;

1. 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;
  2. 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 price difference can be shown by the bidder to be excessive, unreasonable, or greater than would normally be expected by industry standards;
- (e) 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 vs. non-union employee status are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal for DBE participation;
  - (f) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by VDOT or by the bidder/Contractor;
  - (g) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services subject to the restrictions contained in these provisions;
  - (h) Effectively using the services of appropriate personnel from VDOT and from DMBE; 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.

#### **G. Documentation and Administrative Reconsideration of Good Faith Efforts**

**During Bidding:** As described in the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision, the bidder shall provide Form C-49, DBE Good Faith Efforts Documentation, of its efforts made to meet the DBE contract goal as proposed by VDOT with its bid proposal. The bidder shall attach additional pages to the certification, if necessary, in order to fully detail specific good faith efforts made to obtain the DBE firms participation in the proposed contract work.

However, regardless of the DBE contract goal participation level proposed by the bidder or the extent of good faith efforts shown, all bidders shall submit their completed and executed forms C-111, C-112, C-48, and C-49, as aforementioned, or face potential bid rejection.

If a bidder does not submit its completed and executed forms C-111 and C-49 with its bid, or C-112, when required by this Special Provision, the bidder's bid will be considered non-responsive and may be rejected.

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 the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision and has failed to adequately document that it made a good faith effort to achieve sufficient DBE participation as specified in the bid proposal, that firm upon notification of the Department's initial determination will be offered the opportunity for administrative reconsideration before City rejects that bid as non-responsive. The bidder shall address such request for reconsideration in writing to the City within five (5) business days of receipt of notification by the Department and shall be given the opportunity to discuss the issue and present its evidence in person to the Administrative Reconsideration Panel. The Administrative Reconsideration Panel will be made up of VDOT Division Administrators or their designees, none of who took part in the initial determination that the bidder failed to make the goal or make adequate good faith efforts to do so. After reconsideration, City 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 Department determines the bidder has 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 sufficient documented evidence is 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 actual commitment identified by the lowest successful bidder at the time of its bid. The Contractor is still encouraged to seek additional DBE participation during the life of the contract.

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.

**During the Contract:** If a DBE, through no fault of the Contractor, is unable or unwilling to fulfill his agreement with the Contractor, the Contractor shall immediately notify the Department and provide all relevant facts. If a Contractor relieves a DBE subcontractor of the responsibility to perform work under their subcontract, the Contractor is encouraged to take the appropriate steps to obtain a DBE to perform an equal dollar value of the remaining subcontracted work. In such instances, the Contractor is expected to seek DBE participation towards meeting the goal during the performance of the contract.

If the Contractor fails to conform to the schedule of DBE participation as shown on the progress schedule, or at any point at which 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 preceding actions, the Contractor and any aforementioned affiliates may be subject to disallowance of DBE credit until such time as conformance with the schedule of DBE participation is achieved.

**Project Completion:** If the Contractor fails upon completion of the project to meet the required participation, the Contractor and any prime contractual affiliates, as in the case of a joint venture, may be enjoined from bidding as a prime Contractor, or participating as a subcontractor on VDOT or City projects for a period of 90 days.

Prior to enjoinder from bidding or denial to participate as a subcontractor for failure to comply with participation requirements, as provided hereinbefore, the Contractor may submit documentation to the State Construction Engineer to substantiate that failure 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 Construction Engineer upon verification of such documentation shall make a determination whether or not the Contractor has met the requirements of the contract.

If it is determined that the aforementioned documentation is insufficient or the failure to meet required participation is due to other reasons, the Contractor may request an appearance before the

Administrative Reconsideration Panel to establish that all feasible means were used to meet such participation requirements. The decision of the Administrative Reconsideration Panel shall be administratively final. If the decision is made to enjoin the Contractor from bidding on other VDOT work as described herein, the enjoinderment period will begin upon the Contractor's failure to request a hearing within the designated time frame or upon the Administrative Reconsideration Panel's decision to enjoin, as applicable.

#### **H. DBE Participation for Contract Goal Credit**

DBE participation on the contract will count toward meeting the DBE contract goal in accordance with the following criteria:

1. Cost-plus subcontracts will not be considered to be in accordance with normal industry practice and will not normally be allowed for credit.
2. The applicable percentage of the total dollar value of the contract or subcontract awarded to the DBE will be counted toward meeting the contract goal for DBE participation in accordance with the **DBE Program-Related Certifications Made by Bidders/Contractors** section of this Special Provision for the value of the work, goods, or services that are actually performed or provided by the DBE firm itself or subcontracted by the DBE to other DBE firms.
3. When a DBE performs work as a participant in 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 contract goal.
4. When a DBE subcontracts part of the work of the contract to another firm, the value of that subcontracted work may be counted toward the DBE contract goal only if the DBE's subcontractor at a lower tier is a certified DBE. Work that a DBE subcontracts to either a non-DBE firm or to a non-certified DBE firm will not count toward the DBE contract goal. The cost of supplies and equipment a DBE subcontractor purchases or leases from the prime Contractor or the prime's affiliated firms will not count toward the contract goal for DBE participation.
5. The Contractor may count expenditures to a DBE subcontractor toward the DBE contract goal only if the DBE performs a Commercially Useful Function (CUF) on that contract.
6. A Contractor may not count the participation of a DBE subcontractor toward the Contractor's final compliance with the DBE contract goal obligations until the amount being counted has actually been paid to the DBE. A Contractor may count sixty (60) percent of its expenditures actually paid for materials and supplies obtained from a DBE certified as a regular dealer, and one hundred (100) percent of such expenditures actually paid for materials and supplies obtained from a certified DBE manufacturer.
  - (a) For the purposes of this Special Provision, a regular dealer is defined as a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment required and used under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the DBE firm shall be an established business that regularly engages, as its principal business and under its own name, in the purchase and sale or lease of the products or

equipment in question. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions will not be considered regular dealers.

- (b) A DBE firm may be a regular dealer in such bulk items as petroleum products, steel, cement, 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 for the products it sells and provides for the contract work. Any supplementation of a regular dealer's own distribution equipment shall be by a long-term lease agreement and not on an *ad hoc* or contract-by-contract basis to be eligible for credit to meet the DBE contract goal.
- (c) 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.
- (d) For the purposes of this Special Provision, a manufacturer will be defined as a firm that operates or maintains 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. A manufacturer shall include firms that produce finished goods or products from raw or unfinished material, or purchase and substantially alter goods and materials to make them suitable for construction use before reselling them.
- (g) A Contractor may count toward the DBE contract goal the following expenditures to DBE firms that are not regular dealers or manufacturers for DBE program purposes:
  - 1. The entire amount of fees or commissions charged by a DBE firm 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 federal-aid contract, if the fee is reasonable and not excessive or greater than would normally be expected by industry standards for the same or similar services.
  - 2. The entire amount of that portion of the construction contract that is performed by the DBE's own forces and equipment under the DBE's supervision. This includes the cost of supplies and materials ordered and paid for by the DBE for contract work, including supplies purchased or equipment leased by the DBE, except supplies and equipment a DBE subcontractor purchases or leases from the prime Contractor or its affiliates.
- (h) 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 trucking company is not the manufacturer of or a regular dealer in those materials and supplies. The DBE trucking firm 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 contract 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 trucking firm will meet the criteria for performing a CUF on the project. See section on **Miscellaneous DBE Program Requirements; Factors used to Determine if a DBE Trucking Firm is Performing a CUF**.
- (i) The Contractor will receive DBE contract goal credit for the fees or commissions charged by and paid to a DBE broker who arranges or expedites sales, leases, or other project work or service arrangements provided that those fees are determined by City to be reasonable and not excessive as compared with fees customarily charged by non-DBE firms for similar services.

For the purposes of this Special Provision, a broker is defined as a person or firm that regularly engages in arranging for delivery of material, supplies, and equipment, or regularly arranges for 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.

(j)

**I. Performing a Commercially Useful Function (CUF)**

No credit toward the DBE contract goal will be allowed for contract payments or expenditures to a DBE firm if that DBE firm does not perform a CUF on that 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 firm'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, and paying for those materials and supplies. The amount the DBE firm is to be paid under the contract shall be commensurate with the work the DBE actually performs and the DBE credit claimed for the DBE's performance.

**Monitoring CUF Performance:** It shall be the Contractor's responsibility to ensure that all DBE firms selected for subcontract work on the contract, for which he seeks to claim credit toward the contract goal, perform a CUF. Further, the Contractor is responsible for and shall ensure that each DBE firm 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 under this contract.

City will monitor the Contractor's DBE involvement during the performance of the contract. However, City is under no obligation to warn the Contractor that a DBE's participation will not count toward the goal.

**DBEs Must Perform a Useful and Necessary Role in Contract Completion:** A DBE does not perform a commercially useful function 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.

**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, City will presume that the DBE is not performing a CUF and such participation will not be counted toward the contract goal.

**VDOT Makes Final Determination On Whether a CUF Is Performed:** VDOT has the final authority to determine whether a DBE firm has performed a CUF on a federal-aid contract. To determine whether a DBE is performing or has performed a CUF, VDOT will evaluate the amount of work subcontracted by that DBE firm 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 under the DBE Program, unless the independent validity and need for such an arrangement and work is demonstrated.

## J. Verification of DBE Participation and Imposed Damages

Within fourteen 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.

The Contractor shall also furnish, and shall require each subcontractor to furnish, information relative to all DBE involvement on the project for each quarter 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 District Civil Rights Office (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 DMBE'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: <http://vdotforms.vdot.virginia.gov/>

The Contractor shall submit to the Engineer its progress schedule with a copy to the DCRO, as required by Section 108.03 of the Specifications or other such specific contract scheduling specification that may include contractual milestones, i.e., monthly or VDOT requested updates. The Contractor shall include a narrative 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.

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 information shown on the latest Form C-111 as compared with the appropriate Form C-63.

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 **Good Faith Efforts Described** section 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 City's approval prior to assistance being rendered.

If the Contractor fails to comply with correctly completing and submitting any of the required documentation requested by this 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 by the City. Where such failures to provide required submittals or documentation are repeated the Department will move to enjoin the Contractor and any prime contractual affiliates, as in the case of a joint venture, from bidding as a prime Contractor, or participating as a subcontractor on City projects until such submissions are received.

**K. 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. City will use this certification and other information available to determine applicable DBE credit allowed to date by City 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 prime Contractor and appropriate DBEs, will accompany the form, indicating the amount, including any retainage, if present, that remains to be paid to the DBE(s).

**L. 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 of 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. City will use this form and other information available to determine if the Contractor and DBEs have satisfied the DBE contract 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.

**M. Prompt Payment Requirements**

The Contractor shall make prompt and full payment to the subcontractor(s) of any retainage held by the prime Contractor after the subcontractor's work is satisfactorily completed.

For purposes of this Special Provision, a subcontractor'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 City. When City has made partial acceptance of a portion of the prime contract, the Department will consider the work of any subcontractor covered by that partial acceptance to be satisfactorily completed. Payment will be made in accordance with the requirements of Section 107.01, Section 109.08, and Section 109.09 of the Specifications.

Upon City's payment of 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 that portion of the work satisfactorily completed and accepted by the City. For the purposes of this Special Provision, payment of the subcontractor's portion of the work shall mean the Contractor has issued payment in full, less agreed upon retainage, if any, to the subcontractor for that portion of the subcontractor's work that City paid to the Contractor on the monthly progress estimate.

The Contractor shall make payment of the subcontractor's portion of the work within seven (7) days of the receipt of payment from City in accordance with the requirements of Section 107.01, Section 109.08, and Section 109.09 of the Specifications.

If the Contractor fails to make payment for the subcontractor's portion of the work within the time frame specified herein, the subcontractor shall contact the Responsible Engineer and the Contractor's bonding company in writing. The bonding company and City will investigate the cause for non-payment and, barring mitigating circumstances that would make the subcontractor ineligible for payment, ensure payment in accordance with the requirements of Section 107.01, Section 109.08, and Section 109.09 of the Specifications.

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 those prompt payment requirements.

Nothing contained herein shall preclude the Contractor from withholding payment to the subcontractor 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 subcontractor.

#### **N. Miscellaneous DBE Program Requirements**

**Loss of DBE Eligibility:** When a DBE firm has been removed from eligibility as a certified DBE firm, the following actions will be taken:

1. When a Bidder/Contractor has made a commitment to use a DBE firm that is not currently certified, thereby making the Contractor ineligible to receive DBE participation credit for work performed, and a subcontract has not been executed, the ineligible DBE firm does not count toward either the contract goal or overall goal. The Contractor shall meet the contract goal with a DBE firm that is eligible to receive DBE credit for work performed, or must demonstrate to the Contract Engineer that it has made good faith efforts to do so.
2. When a Bidder/Contractor has executed a subcontract with a certified DBE firm prior to official notification of the DBE firm's loss of eligibility, the Contractor may continue to use the firm on the contract and shall continue to receive DBE credit toward its DBE goal for the subcontractor's work.
3. When City has executed a prime contract with a DBE firm that is certified at the time of contract execution but that is later ruled ineligible, the portion of the ineligible firm's performance on the contract before VDOT has issued the notice of its ineligibility shall count toward the contract goal.

**Termination of DBE:** If a certified DBE subcontractor is terminated, or fails, refuses, or is unable to complete the work on the contract for any reason, the Contractor must promptly request approval to substitute or replace that firm in accordance with this section of this Special Provision.

The Contractor, as aforementioned in **DBE Program-Related Certifications Made by Bidders/Contractors**, shall notify City in writing before terminating and/or replacing the DBE that was committed as a condition of contract award or that is otherwise being used or represented to fulfill DBE contract obligations during the contract performance period. Written consent from the City for terminating the performance of any DBE shall be granted only when the Contractor can demonstrate that the DBE is unable, unwilling, or ineligible to perform its obligations for which the Contractor sought credit toward the contract DBE goal. Such written consent by the City to terminate any DBE shall concurrently constitute written consent to substitute or replace the terminated DBE with another DBE. Consent to terminate a DBE shall not be based on the Contractor's ability to negotiate a more

advantageous contract with another subcontractor whether that subcontractor is, or is not, a certified DBE.

1. All Contractor requests to terminate, substitute, or replace a certified DBE shall be in writing, and shall include the following information:
  - (a) The date the Contractor determined the DBE to be unwilling, unable, or ineligible to perform.
  - (b) The projected date that the Contractor shall require a substitution or replacement DBE to commence work if consent is granted to the request.
  - (c) 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;
  - (d) A brief statement of the affected DBE's capacity and ability to perform the work as determined by the Contractor;
  - (e) 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;
  - (f) The current percentage of work completed on each bid item by the DBE;
  - (g) The total dollar amount currently paid per bid item for work performed by the DBE;
  - (h) 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;
  - (i) 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. Contractor's Written Notice to DBE of Pending Request to Terminate and Substitute with another DBE.

The Contractor shall send a copy of the "request to terminate and substitute" letter to the affected committed DBE firm, in conjunction with submitting the request to the DCRO. The affected DBE firm may submit a response letter to the Department within two (2) business days of receiving the notice to terminate from the Contractor. The affected DBE firm shall explain its position concerning performance on the committed work. 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.

If, after making its best efforts to deliver a copy of the "request to terminate and substitute" letter, the Contractor is unsuccessful in notifying the affected DBE firm, the Department will verify that the affected, committed DBE firm is unable or unwilling to continue the contract. The City will immediately approve the Contractor's request for a substitution.

3. Proposed Substitution of Another Certified DBE

Upon termination of a DBE, the Contractor shall use reasonable good faith efforts to replace the terminated DBE. The termination of such DBE shall not relieve the Contractor of its obligations pursuant to this section, and the unpaid portion of the terminated DBE's contract will not be counted toward the contract goal.

When a DBE substitution is necessary, the Contractor shall submit an amended 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. The Contractor shall furnish all pertinent information including the contract I.D. number, project number, bid item, item description, bid unit and bid quantity, unit price, and total price. In addition, the Contractor shall submit documentation for the requested substitute DBE as described in this section of this Special Provision.

Should the Contractor be unable to commit the remaining required dollar value to the substitute DBE, the Contractor shall provide written evidence of good faith efforts made to obtain the substitute value requirement. The City will review the quality, thoroughness, and intensity of those efforts. Efforts that are viewed by City 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 **Good Faith Efforts Described** section of this Special Provision.

**Factors Used to determine if a DBE Trucking Firm is performing a CUF:**

The following factors will be used to determine whether a DBE trucking company is performing a CUF:

1. To perform a CUF the DBE trucking firm shall be completely responsible for the management and supervision of the entire trucking operation for which the DBE is responsible by subcontract on a particular contract. There shall not be a contrived arrangement, including, but not limited to, any arrangement that would not customarily and legally exist under regular construction project subcontracting practices for the purpose of meeting the DBE contract goal;
2. 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;
3. The DBE receives full contract goal credit for the total reasonable amount the DBE is paid for the transportation services provided on the contract using trucks the DBE owns, insures, and operates using drivers that the DBE employs and manages;
4. The DBE may lease trucks from another certified DBE firm, including from an owner-operator who is certified as a DBE. The DBE firm that leases trucks from another DBE will receive credit for the total fair market value actually paid for transportation services the lessee DBE firm provides on the contract;
5. The DBE may also lease trucks from a non-DBE firm, including 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 lessees, *not to exceed the value of transportation services provided by DBE-owned trucks on the contract*. For additional participation by non-DBE lessees, the DBE will only receive credit for the fee or commission it receives as a result of the lease arrangement.

*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 from non-DBE Firm Z.

		<b>Value of Trans. Serv.</b>
		(For Illustrative Purposes Only)
<u><b>Firm X</b></u>		
Truck 1	Owned by DBE	\$100 per day

Truck 2	Owned by DBE	\$100 per day
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**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.

\* 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.

6. For purposes of this section, the lease must indicate that the DBE firm 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 firm that has leased the truck at all times during the life of the lease.

**Data Collection:** In accordance with 49CFR Section 26.11, all firms bidding on prime contracts and bidding or quoting subcontracts on federal-aid projects shall provide the following information to the Contract Engineer annually.

- o Firm name
- o Firm address
- o Firm's status as a DBE or non-DBE
- o The age of the firm and
- o The annual gross receipts of the firm

The means of transmittal and the risk for timely receipt of this information shall be the responsibility of the bidder. However, the above information can be submitted by means of the Annual Gross Receipts Survey as required in the Prequalification/Certification application.

All bidders, including DBE prime Contractor bidders, shall complete and submit to the Contract Engineer the Subcontractor/Supplier Solicitation and Utilization Form C-48 for each bid submitted; to be received within ten (10) business days after the bid opening. Failure of bidders to submit this form in the time frame specified may be cause for disqualification of the bidder and rejection of their bid in accordance with the requirements of this Special Provision, the contract specifications, and VDOT Road and Bridge specifications.

**O. Suspect Evidence of Criminal Behavior**

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.

**Suspected DBE Fraud**

In appropriate cases, the City or 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 49CFR Part 31.

**P. Summary of Remedies for Non-Compliance with DBE Program Requirements**

Failure of any bidder\Contractor to comply with the requirements of this Special Provision for Section 107.15 of the Virginia Road and Bridge Specifications, which is deemed to be a condition of bidding, or where a contract exists, is deemed to constitute a breach of contract shall be remedied in accordance with the following:

## 1. **Disadvantaged Business Enterprise (DBE) Program Requirements**

The Contractor shall carry out applicable requirements of 49 CFR Part 26 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 the City and VDOT deem appropriate.

All administrative remedies noted in this provision are automatic unless the Contractor exercises the right of appeal within the required timeframe(s) specified herein.

## 2. **DBE Program-Related Certifications Made by Bidders\Contractors**

Once awarded the contract, the Contractor shall comply fully with all regulatory and contractual requirements of the USDOT DBE Program, and that each certified DBE firm 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. Where a contract exists and where the Contractor, DBE firm, or any other firm retained by the Contractor has failed to comply with federal or VDOT DBE Program regulations and/or their requirements on that contract, VDOT has the authority and discretion to determine the extent to which the DBE contract 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.

## 3. **Disqualification of Bidder**

Bidders may be disqualified from bidding for failure to comply with the requirements of this Special Provision, the contract specifications, and VDOT Road and Bridge Specifications.

## 4. **Bidding Procedures**

The failure of a bidder to submit the required documentation within the timeframes specified in the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision may cause for rejection of that bidder's bid. If the lowest bidder is rejected for failure to submit required documentation in the specified time frames, the City may either award the work to the next lowest bidder, or re-advertise and construct the work under contract or otherwise as determined by the Commonwealth.

In order to award a contract to a bidder that has failed to meet DBE contract goal requirements, VDOT will determine if the bidder's efforts were adequate good faith efforts, and if given all relevant circumstances, those efforts were to the extent a bidder actively and aggressively seeking to meet the requirements would make. Regardless of the DBE contract goal participation level proposed by the bidder or the extent of good faith efforts shown, all bidders shall timely and separately file their completed and executed Forms C-111, C-112, C-48, and Form C-49, as aforementioned, or face potential bid rejection. If a bidder does not submit its completed and executed C-111, and C-49 with its bid or C-112, when required by this Special Provision, the bidder's bid will be considered non-responsive and may be rejected. If, after reconsideration, the City determines the bidder has 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 sufficient documented evidence is presented to demonstrate that the apparent low bidder made reasonable good faith efforts, the City will award the contract and reduce the DBE requirement to the actual commitment identified by the lowest successful bidder at the time of its bid. The Contractor is encouraged to seek additional participation during the life of the contract.

If the Contractor fails to conform to the schedule of DBE participation as shown on the progress schedule, or at any point at which it is clearly evident that the remaining dollar value of allowable credit for performing work is insufficient to obtain the scheduled participation, the Contractor and any aforementioned affiliates may be enjoined from bidding for 60 days or until such time as conformance with the schedule of DBE participation is achieved. In such instances, the Contractor is expected to seek DBE participation towards meeting the goal during the prosecution of the contract.

If the Contractor fails upon completion of the project to meet the required participation, the Contractor and any prime contractual affiliates, as in the case of a joint venture, may be enjoined from bidding as a prime Contractor, or participating as a subcontractor on VDOT or City projects for a period of 90 days.

Prior to enjoinder from bidding or denial to participate as a subcontractor for failure to comply with participation requirements, as provided hereinbefore, the Contractor may submit documentation to the State Construction Engineer to substantiate that failure was due solely to quantitative underrun(s) or elimination of items subcontracted to DBEs, and that all feasible means have been used to obtain the required participation. The State Construction Engineer upon verification of such documentation shall make a determination whether or not the Contractor has met the requirements of the contract.

If it is determined that the aforementioned documentation is insufficient or the failure to meet required participation is due to other reasons, the Contractor may request an appearance before the Administrative Reconsideration Panel to establish that all feasible means were used to meet such participation requirements. The decision of the Administrative Reconsideration Panel shall be administratively final. The enjoinder period will begin upon the Contractor's failure to request a hearing within the designated time frame or upon the Administrative Reconsideration Panel's decision to enjoin, as applicable.

## **5. Verification of DBE Participation and Imposed Damages**

If the Contractor fails to comply with correctly completing and submitting any of the required documentation requested by this 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 by City. Where such failures to provide required submittals or documentation are repeated the City will move to enjoin the Contractor and any prime contractual affiliates, as in the case of a joint venture, from bidding as a prime Contractor, or participating as a subcontractor on VDOT or City projects until such submissions are received.

In addition to the remedies described heretofore in this provision VDOT also exercises its rights with respect to the following remedies:

### **Suspect Evidence of Criminal Behavior**

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.

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 49CFR Part 31.

VIRGINIA DEPARTMENT OF  
TRANSPORTATION SPECIAL PROVISION FOR  
**USE OF DOMESTIC  
MATERIAL**

July 26, 2013

**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 products (including miscellaneous steel 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 regardless of the percentage they exist in the manufactured product or final form they take. Therefore, "Domestically produced in the United States of America" means all manufacturing processes must occur in the United States of America, to mean, in one of the 50 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 whereby a raw material or a reduced iron ore material is changed, altered or transformed into a steel or iron item or product which, because of the process, is different from the original material. 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. Materials used in the coating process need not be domestic materials.

For the purposes herein 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 process takes place.

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. The use of foreign source steel or iron billet is not acceptable under the provisions of Buy America. For the purposes of this provision all steel or iron material not meeting the criteria as domestically produced in the United States of America will be considered as “foreign” material. All iron and steel items will be classified hereinafter as "domestic" or "foreign", identified by and subject to the provisions herein.

Domestically produced iron or steel ingots or billets shipped outside the United States of America for any manufacturing process and returned for permanent use in a project would not comply with “Buy America” requirements.

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.

Section 635.410(b) of Title 23 CFR permits a minimal amount of steel or iron material to be incorporated in the permanent work on a federal-aid contract. The cost of such materials or products must not exceed one-tenth of one percent of the contract amount or \$2500, whichever is greater. The cost of the foreign iron or steel 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.

In the event the total cost of all "foreign" iron and steel product or material does not exceed one-tenth of one percent of the total contract cost or \$2,500, whichever is greater, the use of such material meeting the limitations herein will not be restricted by the domestic requirements herein. However, by signing the bid, the Bidder certifies that such cost does not exceed the limits established herein.

**Waivers:**

With prior concurrence from Federal Highway Administration (FHWA) headquarters, the Federal Highway Division Administrator may grant a waiver to specific projects provided it can be demonstrated:

1. that the use of domestic steel or iron materials would be inconsistent with the public interest; or
2. materials or products requested for use are not produced in the United States in sufficient or reasonably available quantities and are of satisfactory quality for use in the permanent work.

The waiver request shall be submitted with supportive information to include:

1. Project number\description, project cost, waiver item, item cost, country of origin for the product, reason for the waiver, and
2. Analysis of redesign of the project using alternative or approved equal domestic products.

In order to grant such a waiver the request for the waiver must be published in the Federal Register for a period not less than 15 days or greater than 60 days prior to waiving such requirement. An initial 15 day comment period to the waiver will be available to the public by means of the FHWA website: <http://www.fhwa.dot.gov/construction/contracts/waivers.cfm>. Following that initial 15 day period of review and comment the request for waiver will be published by the FHWA in the Federal Register. The effective date of the FHWA finding, either to approve or deny the waiver request, will be 15 days following publication in the Federal Register.

Only the FHWA Administrator may grant nationwide waivers which still are subject to the public rulemaking and review process.

**Alternative Bidding Procedures:**

An alternative bidding procedure may be employed to justify the use of foreign iron and/or steel. To qualify under this procedure the total project is bid using two alternatives, one based on the use of domestic products and the other, the use of corresponding foreign source steel and/or iron materials.

In accordance with the provisions of Section 103.02 the Contract will be awarded to the lowest responsive and responsible bidder who submits the lowest total bid based on furnishing domestic iron or steel unless such total exceeds the lowest total bid based on furnishing foreign iron and/or steel by more than 25 percent, in which case the award will be made to the lowest responsive and responsible bidder furnishing foreign iron and/or steel based upon furnishing verifiable supportive data. The bidder shall submit a bid based on permanently incorporating only domestic iron and/or steel in the construction of the project. The bidder may also submit a bid for the same proposed contract based on being allowed to permanently incorporate corresponding foreign iron and/or steel materials meeting the other contract requirements into the work on the contract. If he chooses to submit such a bid, that alternate bid shall clearly indicate which foreign iron and/or steel items will be permanently installed in the work as well as contain prices for all other items listed in the corresponding domestic proposal to complete a total "Foreign" bid.

In the event the contract is awarded to the bidder furnishing foreign iron and/or steel materials or items the provision for price adjustment of steel items will be permitted, however, price fluctuations shall use the U.S. index as stated in the Special Provision for Price Adjustment for Steel. The Contractor must indicate which corresponding eligible steel items he chooses price adjustment to apply. In the event the contract is awarded to a bidder furnishing foreign iron and/or steel items and during the life of that contract the Contractor discovers he cannot furnish foreign iron and/or steel material as originally anticipated and agreed upon, he shall be responsible to honor the total bid price and furnish such iron and/or steel materials meeting the contract requirements from other sources as necessary to complete the work.

In the event the Contractor proposes to furnish "foreign" iron and steel and can verify a savings in excess of 25 percent of the overall project cost if bid using domestic materials, the Contractor shall submit a second complete paper bid proposal clearly marked "Foreign" including Form C-7 and supportive data supplement on all sheets. Supportive data shall list, but not be limited to, origin of material, best price offer, quantity and complete description of material, mill analysis, evidence or certification of conformance to contract requirements, etc. The "Foreign" bid shall be completed using the best price offer for each corresponding bid item supplying foreign material in the alternative bid and submit the same with the Contractor's "Domestic" bid. The Contractor shall write the word "Foreign" by the bid total shown on Form C-7 as well as last page of Schedule of Items showing the total bid amount. The bidder shall also contact the State Contract Engineer to inform him that he is also submitting an alternate "Foreign" paper bid.

The information listed on the supportive data sheet(s) will be used to provide the basis for verification of the required cost savings. In the event comparison of the prices given, or corrected as provided in Section 103.01 of the Specifications, shows that use of "foreign" iron and steel items does not represent a cost savings exceeding the aforementioned 25 percent, "domestic" iron and/or steel and prices given there for shall be used and the "100 percent Domestic Items Total" shall be the Contractor's bid.

**Certification of Compliance:**

Where domestic material is supplied, prior to incorporation into the Work, the Contractor shall furnish to the Department a certificate of compliance (such as may be furnished by steel mill test reports) that all steel and/or iron products supplied to the project except as may be permitted (one-tenth of one percent of the total contract cost or \$2,500, whichever is greater) and permanently incorporated into the work satisfies the domestic requirements herein. This certification shall contain a definitive statement about the origin of all products covered under the provisions of Buy America as stated herein.

In lieu of the Contractor providing personal certification, the Contractor may furnish a stepped certification in which each handler of the product, such as supplier, fabricator, manufacturer, processor, etc. furnishes an individual certification that their step in the process was domestically performed.

**(c103i01-0814) SECTION 103—AWARD AND EXECUTION OF CONTRACTS** of the Specifications is amended as follows:

**Section 103.09—Execution of Contract** is amended to include the following:

According to Section 2.2-4308.2 of the *Code of Virginia*, any employer with more than an average of 50 employees for the previous 12 months entering into a contract in excess of \$50,000 with the Department to provide work or provide services pursuant to such contract shall register and participate in the U.S. Department of Homeland Security’s “E-Verify” system to verify information and work authorization of its newly hired employees performing work pursuant to such contract. Contractors are not required to be enrolled with “E-Verify” at the time bids are submitted, however, prior to award, the lowest responsive and responsible bidder must be enrolled with “E-Verify”. Contractors may use the following website to enroll in “E-Verify”, <http://www.uscis.gov/everify>.  
8-8-14 (SPCN)

**(c105hf1-0309) SECTION 105.06 SUBCONTRACTING**

of the Specifications is amended to include the following:

Any distribution of work shall be evidenced by a written binding agreement on file at the project site. Where no field office exists, such agreement shall be readily available upon request to Department inspector(s) assigned to the project.

The provisions contained in Form FHWA-1273 specifically, and other federal provisions included with the prime Contract are generally applicable to all Federal-aid construction projects and must be made a part of, and physically incorporated into all contracts, as well as, appropriate subcontracts for work so as to be binding in those agreements.  
12-19-08 (SPCN)

**SECTION 105.06—SUBCONTRACTING (FEDERAL FUNDED PROJECTS) August 19, 2015a**  
**SECTION 105.06—SUBCONTRACTING of the Specifications is amended to include the following:**

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 SWAM, and Non-SWAM/DBE vendor payments annually on June 30th (if not a business day, then the next business day), and within 30 days after final acceptance of the work, to the District Civil Rights Section. The Contractor shall provide the information in a format consistent with revised Form C-61 Vendor Payment 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). The Contractor shall provide the information in a format consistent with Form C-63 Vendor Payment Compliance Report. If the Contractor fails to provide the required information, the Department may delay final payment according to Specification Section 109.10 of the Specifications.

**(c100113-0116) 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 2007 for both imperial and metric unit projects. References to the “Road and Bridge Standard(s)” shall refer to the Virginia Department of Transportation Road and Bridge Standards, dated 2008 for both imperial and metric unit projects. References to the “Virginia Work Area Protection Manual” shall refer to the 2011 edition of the Virginia Work Area Protection Manual with Revision Number 1 incorporated, dated April 1, 2015 for imperial and metric unit projects. 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 for imperial and metric unit projects. Where the terms “Department”, “Engineer” and “Contract Engineer” appear in VDOT Supplemental Specifications, Special Provisions and Special Provision Copied Notes used in this contract and the VDOT publication(s) that each references, the authority identified shall be in accordance with the definitions in Section 101.02 of the Virginia Department of Transportation Road and Bridge Specifications, dated 2007. 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 publication(s) 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 2007 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 enclosed in parenthesis “( )” at the 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. The system of measurement to be used in this project is stated elsewhere in this contract. VDOT Supplemental Specifications, Special Provisions and Special Provision Copied Notes containing imperial units of measure with accompanying expressions in metric units shall be referred to hereinafter as “dual unit measurement” documents. Such a “dual unit measurement” is typically expressed first in the imperial unit followed immediately to the right by the metric unit in parenthesis “( )” or brackets “[ ]” where parenthesis is used in the sentence to convey other information. Where a “dual unit measurement” appears in VDOT documents, the unit that applies shall be in accordance with the system of measurement as stated elsewhere in this contract. The unit shown that is not of the declared unit of measurement is not to be considered interchangeable and mathematically convertible to the declared unit and shall not be used as an alternate or conflicting measurement. Where VDOT Specifications are used for metric unit projects and only imperial units of measurement appear the document, the provision(s) in this contract for imperial unit to metric unit conversion shall apply.

6-10-15 (SPCN)

**105.12 – Coordination of Plans, Standard Drawings, Specifications, Supplemental Specifications, Special Provisions, and Special Provisions Copied Notes has been amended to add the following (City Revision 01-08-2016):**

The contract documents Section 0001 through 0900 shall be considered Special Provisions and Section 1000 shall be considered Supplementary Specifications.

**PERSONNEL REQUIREMENTS FOR WORK ZONE TRAFFIC CONTROL**

Section 105 and 512 of the Specifications are amended as follows:

**Section 105.14—Maintenance During Construction** is amended to add the following:

The Contractor shall have at least one person on the project site during all work operations who is currently verified either by the Department’s Basic or Intermediate Work Zone Traffic Control training, or by the American Traffic Safety Services Association (ATSSA) Virginia Intermediate Traffic Control Supervisor (TCS) training by a

Department approved training provider. This person must have their verification card with them while on the project site. This person shall be responsible for the oversight of work zone traffic control within the project limits in compliance with the Contract requirements, the VWAPM, and the MUTCD. This person's duties shall include the supervision of the installation, adjustment (if necessary), inspection, maintenance, and removal when no longer required, of all work zone traffic control devices on the project. The Department's Intermediate Work Zone Traffic Control trained person or an ATSSA Virginia Intermediate TCS can oversee multiple/separate work locations but shall be on site within 60 minutes of notification to oversee changes made to temporary traffic control otherwise the Engineer will suspend that maintenance operation until that operation is appropriately staffed in accordance with the requirements herein. The Contractor shall have at least one person, at a minimum, on the project site who is verified in Basic Work Zone Traffic Control by the Department for each maintenance operation that involves installing, maintaining, or removing work zone traffic control devices. This person shall be responsible for the placement, maintenance and removal of work zone traffic control devices. In the event none of the Contractor's personnel on the project site have, at a minimum, the required Basic Work Zone Traffic Control verification, the Engineer will suspend that construction/maintenance operation until that operation is appropriately staffed in accordance with the requirements herein.

**Section 512.03 Procedures is amended to add (r) Work Zone Traffic Control as the following:**

(r) Work Zone Traffic Control: The Contractor shall provide individuals trained in Work Zone Traffic Control in accordance with the requirements of Section 105.14 of the Specifications.

**Section 512.04 Measurement and Payment is amended to add the following:**

Basic Work Zone Traffic Control – Separate payment will not be made for providing a person to meet the requirements of Section 105.14 of the Specifications. The cost thereof shall be included in the price of other appropriate pay items.

Intermediate Work Zone Traffic Control - Separate payment will not be made for providing a person to meet the requirements of Section 105.14 of the Specifications. The cost thereof shall be included in the price of other appropriate pay items.

11-24-15a (SPCN)

**105.19—Submission and Disposition of Claims (City Revision 7-8-16)**

**(a) Notice of Intent to File a Claim**

Early or prior knowledge by the City of Harrisonburg of an existing or impending claim for damages could alter the plans, scheduling, or other City of Harrisonburg action or result in mitigation or elimination of the basis for the claim. Therefore, the Contractor shall submit a written statement describing the act of omission or commission by the City of Harrisonburg or its agents that allegedly caused damage to the Contractor and the nature of the claimed damage to the Project Manager at the time of each and every occurrence that the Contractor believes to be the basis of a claim or prior to the beginning of the work upon which a claim and any subsequent action will be based. "Occurrence" includes, but is not limited to the Project Manager's denial of the Contractor's timely request for time extension, additional compensation, change order, adjustment, or other request under the Contract, or any other decision, instruction, directive, or order that the Contractor believes will result in a claim. The written statement shall clearly state that it is a "notice of intent to file a claim." If such damage is deemed certain in the opinion of the Contractor to result from his acting on an order from the Project Manager, he shall immediately take written exception to the order. Submission of a notice of intent to file a claim as specified shall be mandatory. Failure to submit such notice of intent shall be a conclusive waiver to such claim for damages 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.

In addition, at the time of each and every occurrence that the Contractor believes to be the basis of a claim or prior to beginning the work upon which a claim and any subsequent action will be based, the Contractor shall furnish the Project Manager an itemized list of materials, equipment, and labor for which additional compensation will be claimed. The Contractor shall afford the Project Manager every facility for keeping an actual cost record of the

work. The Contractor and the Project Manager shall compare records and bring them into agreement at the end of each day. Failure on the part of the Contractor to afford the Project Manager proper facilities for keeping a record of actual costs will constitute a waiver of a claim for such extra compensation except to the extent that it is substantiated by the City of Harrisonburg's records. The filing of such notice of intent by the Contractor and the keeping of cost records by the Project Manager shall in no way establish the validity of a claim.

**(b) Time for Submittal of Claim**

Upon completion or termination of the Contract, the Contractor may, within 60 days after the final estimate date established by the Department pursuant to Code of Virginia § 33.2-1101, deliver to the City of Harrisonburg a certified written claim, which must be a signed original claim document, along with an electronic copy of the claim document as a Portable Document Format (PDF) file, for the amount he deems he is entitled to under the Contract. For the purpose of this Section, the final estimate date shall be that date set forth in a letter from the City of Harrisonburg to the Contractor sent by certified mail and shall be considered as the date of notification of the City of Harrisonburg's final estimate. Regardless of the manner of delivery of the claim, the City of Harrisonburg must receive and have physical possession of the Contractor's written claim within the 60 day period that commences with the final estimate date. Submittals received by the City of Harrisonburg either before the final estimate date or after the 60 day period shall not have standing as a claim.

**(c) Content of Claim**

The Contractor's certified written claim shall set forth in detail the facts upon which the claim is based, including but not limited to the following:

1. A detailed statement of the facts upon which the claim is based providing items of work affected and included in each claim, and the date(s) on which actions or events resulting in the claim occurred or conditions resulting in the claim became evident; and
2. All pertinent data, documents and correspondence that may substitute the claim. The City of Harrisonburg shall have the right, at its expense, to review and copy all of the Contractor's non-privileged project files and documents, both electronic and paper, for use in analyzing the claim; and
3. Identification of the provisions of the Contract that the City of Harrisonburg's allegedly breached, and the acts or omissions constituting such breach.
4. A detailed statement of the amount of the actual cost for materials, labor and equipment sought in the claim.
5. A copy of the notice(s) of intent to file a claim that the Contractor submitted to the City of Harrisonburg for the claim(s).

**(d) Certification of Claim.**

The Contractor shall submit with the claim a written certification of the claim in the following form:

Pursuant to the Code of Virginia, I hereby certify that this Contract claim submission for Virginia Department of Transportation Project No. \_\_\_\_\_ in \_\_\_\_\_ County, Virginia, is a true and accurate representation of additional costs, expenses, damages and/or delays incurred by \_\_\_\_\_ (Contractor) or its subcontractors or suppliers in the performance of the required Contract work. Any statements, representations, writings, or documents, made or used and known to be false, shall be considered a violation of the Virginia Governmental Frauds Act, punishable as allowed by the Code of Virginia for a Class 6 Felony, and shall be considered a violation of the Virginia Fraud Against Taxpayers Act, subject to the civil penalties allowed by the Code of Virginia.

\_\_\_\_\_(Contractor)

By: \_\_\_\_\_

As officer or duly appointed agent of \_\_\_\_\_(Contractor)

Title: \_\_\_\_\_

Date: \_\_\_\_\_

State Of: \_\_\_\_\_

City/County of \_\_\_\_\_, To-Wit:

I, the undersigned, a Notary Public in and for the City/County and State aforesaid, do hereby certify that \_\_\_\_\_, whose name is signed to the foregoing instrument, bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, has this day acknowledged

the same before me in my City/County and State aforesaid.  
Given under my hand this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.  
Notary Public: \_\_\_\_\_  
Notary Registration No.: \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Claims submitted by the Contractor for itself or its subcontractors or suppliers during the statutory period for submitting Contract claims that are submitted without the Contractor's certification described above shall not have standing as a claim and shall not be considered by the City of Harrisonburg.

**(e) Review of Claim**

Within 90 days from the receipt of the claim, the City of Harrisonburg will make an investigation and notify the Contractor by certified mail of its decision. However, by mutual agreement, the City of Harrisonburg and Contractor may extend the 90-day period for another 30 days. If the Contractor is dissatisfied with the City of Harrisonburg's decision, within 30 days from receipt of the decision the Contractor shall notify the City Manager in writing that it desires to appear before the City Manager, whether in person or through counsel, and present additional facts and arguments in support of its claim. The City Manager will schedule and meet with the Contractor within 30 days after receiving the request. However, the City Manager and Contractor, by mutual agreement, may schedule the meeting to be held after 30 days but before the 60<sup>th</sup> day from the receipt of the Contractor's written request. Within 45 days from the date of the meeting, the City Manager will investigate the claim, including the additional facts presented, and notify the Contractor in writing of his decision. However, the City Manager and Contractor, by mutual agreement, may extend the 45-day period for another 30 days. If the City Manager deems that all or any portion of a claim is valid, he shall have the authority to negotiate a settlement with the Contractor subject to any approvals required by the Code of Virginia. Any monies that become payable as the result of claim settlement after payment of the final estimate will not be subject to payment of interest unless such payment is specified as a condition of the claim settlement.

**(f) Compensation for Claims**

The Project Manager will determine time extension according to 108.04 and compensation according to 109.05 if the Department concludes that the Contractor has established entitlement to compensation or a time extension for the claim.

**(c102r01-0916) COMPLIANCE WITH THE CARGO PREFERENCE ACT**

**Section 102.05—Preparation of Bid** of the Specifications is amended to include the following:

**(g) Compliance with the Cargo Preference Act**

As required by [46 CFR 381.7 \(a\)-\(b\)](#) "Use of United States-flag vessels, when materials or equipment are acquired for a specific highway project, the Contractor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States. a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.
3. To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

This requirement will not be applicable when materials or equipment used on the Project are obtained from the existing inventories of suppliers and contractors; they are only applicable when the materials or equipment are acquired for the specific project, and have been transported by ocean vessel.

7-12-16 (SPCN)

END FEDERAL AND STATE REQUIREMENTS

**SECTION 1000**

**SUPPLEMENTAL PROVISIONS**

**INDEX**

1000 – QC, QA, & IA TESTING.....119  
1001 – SUMMARY.....143  
1002 – VSMP GENERAL PERMIT.....147  
1003 – EARTHWORK.....155  
1004 – SEEDING & SODDING.....156  
1005 – STREET CENTERLINE MONUMENTS.....166  
1006 – STORMWATER TREATMENT DEVICE.....167  
1007 – DECORATIVE RETAINING SIGN WALL.....172  
1008 – WIRE MESH FENCE.....187  
1009 – INTERCONNECTED PREFORMED THERMOPLASTIC PAVEMENT MARKING  
MATERIAL .....200

## **1000 – Quality Control, Quality Assurance & Independent Assurance Testing**

The contractor shall be responsible for the quality of construction and materials incorporated into the Project. The Contractor's Quality Control measures shall ensure that operational techniques and activities provide material of acceptable quality. Contractor sampling and testing shall be performed to control the processes and determine the degree of materials compliance with the Contract.

### **CONSTRUCTION QUALITY CONTROL PLAN**

The Contractor shall submit for review and approval a Construction Quality Control (QC) Plan and it must address the following:

1. Describe the Contractor's Quality Control organization, including the number of full-time equivalent employees or Sub-Contractors with specific Quality Control responsibilities, including an organizational chart showing lines of authority and reporting responsibilities.
2. List by discipline the name, qualifications, duties, responsibilities and authorities for all persons proposed to be responsible for Construction Quality Control.
3. Provide Quality Control sampling, testing and analysis plan with methods that include a description of how random locations for testing and sampling are determined.
4. Identify the laboratory(s) to be used for each type of testing.
5. Specify documentation for QC activities.
6. Provide procedures to meet contract requirements for corrective action when QC criteria are not met.

The Contractor's QC Plan shall utilize industry standard inspection procedures as well as those outlined in VDOT's Construction Manual, Materials Manual of Instruction, Road and Bridge Specifications and the minimum requirements outlined in the following tables. All materials utilized on the project shall be from VDOT approved sources and all mix designs shall be VDOT approved.

### **CONTRACTOR RESPONSIBILITIES**

The Contractor shall prepare test reports meeting the requirements of AASHTO R18 or may use the current appropriate VDOT forms. The Contractor shall also prepare, maintain and submit completed test records and final materials certification in accordance with the requirements of VDOT's Construction Manual, Materials Manual of Instruction and this Section.

Contractor shall furnish copies of all test results to the Project Manager or other authorized City representative within 24 hours of completing the test of the acquired sample or the next day of business.

### **ACCEPTANCE**

All plant manufactured materials shall be tested at the plant and accepted by VDOT in accordance with VDOT's QA/QC Programs as described in the Materials Manual of Instruction. Field testing for density shall be the responsibility of the Contractor for QC.

A cooperative effort by the Contractor and the City to identify the cause of any non-specification material or any discrepancy in the test results will include the following actions:

- x A check of test data, calculation and results;
- x Observation of the Contractor's sampling and testing by the City;
- x Check of test equipment by the City.

When the source of test result discrepancies between the Contractor and the City/VDOT cannot be resolved, a referee split sample shall be obtained and tested; this work shall be performed by the City/VDOT. The testing of the sample

shall be performed in duplicate by the laboratory without knowledge of the specific project conditions such as the identity of the Contractor, the test results of the City/VDOT and Contractor of the specification targets. The results of these tests shall be binding on both the Contractor and the City. The Contractor or its representative may witness the testing if requested.

Costs incurred for referee testing shall be paid by the party found in error.

### **SMALL QUANTITIES**

The City may elect to accept small quantities of material without normal sampling and testing frequencies. The determination to accept materials using this provision rests solely with the City. Structural Concrete shall not be considered under the small quantity definition.

Factors that the City shall consider prior to use of small quantity acceptance are:

- x Has the material been previously approved?
- x Is the material certified?
- x Is there a current mix design or reference design?
- x Has it been recently tested with satisfactory results?
- x Is the material structurally significant?

Small quantity acceptance may be accomplished by visual, certification or other methods. Acceptance of small quantities of materials by these methods must be fully documented. Documentation of materials under these methods must be provided by the City. For visual documentation, an entry shall be noted on field records, with a statement as to the basis of acceptance of the material and the approximate quantity involved.

### **PAYMENT**

The costs of all material, labor, personnel, equipment, sampling, testing, documentation and report preparation for QC sampling and testing of material under the above Construction Quality Control Plan shall be incidental to the contract bid price of the respective material. No additional compensation shall be provided for these items.

### **QUALITY ASSURANCE**

Quality Assurance (QA) testing will be the responsibility of the City of Harrisonburg and shall be performed in accordance with the following tables.

### **INDEPENDENT ASSURANCE**

Independent Assurance (IA) testing will be the responsibility of the Virginia Department of Transportation (VDOT) and shall be performed in accordance with the following tables.

END OF SECTION

<u>Material Type</u>	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>Acceptance Testing</u>	<u>VST</u>	<u>IA</u>
<u>CONCRETE CURING MATERIALS</u>					
Polyethylene Film		AASHTO M171	Verification of LM # and lot numbers if from QA supplier Approved list 44, if not test one sample per lot number	NA	Non required if performed in VDOT or AMRL accredited laboratory

QC/VST/IA Frequency - Asphalt					
Material Type	Spec Section	Test Reference	Contractor QC Testing	VST	IA
Asphalt Concrete Pavement	VDOT Section 315				
Pavement Density by Nuclear Method with In Place Pavement Density (Asphalt Pavement)		VTM-76, VTM-6	Establish Roller pattern, control strips and test sections, 10 stratified random density test sites per test section (5,000 ft.)	VST is performed on Twenty (20) percent of QC lots. Obtain two cores in one randomly selected QC lot out of five lots to verify in place density. Minimum one VST sample per project.	IA=10%* QC Readings Locality representative observe and witness QC testing to assure gauge is calibrated and accurate. Observe and verify test sites are random and match selected sites. Verify that QC tests are done using proper procedures. Observe one control strip per density technician and obtain all cores from control strip for reweighing in laboratory (randomly select a minimum 10% of cores) to confirm field density testing.

<b>Acceptance/VST/IA Frequency - Soil &amp; Aggregate</b>					
<b>Material Type</b>	<b>Spec Section</b>	<b>Test Reference</b>	<b>Acceptance Testing</b>	<b>VST</b>	<b>IA</b>
<b>Backfill</b>	Contract Special Provisions				
Moisture Density Relations- Standard Proctor, Atterberg Limits & Grain Size Analysis (All Backfill Types)		VTM-1, VTM-7, & VTM-25	Done during project development	NA	Non required if performed in VDOT or AMRL accredited laboratory
One Point Proctor Check Compare to Nuclear Gauge		VTM 012	As needed.	NA	Run split sample when needed. 1 test per project to check procedure and equipment.
<b>In Place Density Tests:</b>					
Box Culverts, Pipes & other Drainage Structures	302.303	VTM-10	A minimum of one (1) test shall be performed per lift on alternating sides of the structure for each 300 linear ft. or portion thereof in structure length. This test pattern shall begin after the first 4-in. compacted layer above the structure's bedding and shall continue to one (1) foot above the top of the structure.	NA	One IA shall be conducted on each compaction technician once per project regardless of the structure or material type (box culvert, pipe, Abutment, retaining wall or embankment). IA shall consist of a split density test in situ, observing technician technique, checking equipment calibrations and calculations.

Material Type

Spec Section

Test Ref.

Acceptance Testing

VST

IA

BACKFILL

		<p>A minimum of two (2) tests every other lift up to 100 linear ft. shall be performed. Testing shall be performed behind these structures at a distance from the heel no farther than a length equal to the height of the structure plus 10 ft.</p> <p>For MSE Walls, Less than 100 linear ft. a minimum of one (1) test every other lift shall be performed. The testing shall be performed a minimum distance of 8 ft. away from the face of the wall, to within three feet of the back edge of the zone of the reinforced fill area. Test sites shall be staggered throughout the length of the wall to obtain uniform coverage. Testing shall begin after the first two (2) lifts of reinforced fill have been placed and compacted.</p> <p>Walls more than 100 linear ft., a minimum of two (2) tests every other lift not to exceed 200 linear ft. shall be performed.</p>			<p>One IA shall be conducted on each compaction technician once per project regardless of the structure or material type (box culvert, pipe, Abutment, retaining wall or embankment). IA shall consist of a split density test in situ, observing technician technique, checking equipment calibrations and calculations.</p>
<p>Abutments, Retaining Walls and MSE Walls</p>	<p>Sections 303,401</p>	<p>VTM-10</p>		<p>NA</p>	
<p><b>SOILS/ EMBANKMENT</b></p>					

Material Type

Spec Sect

Test Ref.

Acceptance Testing

VST

IA

**SOILS/EMBANKMENT**

Moisture Density Relations- Standard Proctor, Atterberg Limits & Grain Size Analysis (Soils/Embankment)		VTM-1, VTM-7, & VTM-25	Done during project development	NA	1 test per year during production; minimally perform one (1) in first five (5) tests taken for QA
One Point Proctor Check Compare to Nuclear Gauge (Soils/Embankment)		VTM 012	As needed.	NA	1 test per year during production; minimally perform one (1) in first five (5) tests taken for QA
			The minimum number of field density tests required shall be one for each 2500 yd <sup>3</sup> or less of fill material placed, with the following additional requirements: (a) For fill areas less than 500 ft. in length, a minimum of one (1) field density test for every other 6-in. compacted layer from the bottom to the top of fill starting with the second lift. (b) For fills 500 to 2000 ft. in length, a minimum of two (2) field density tests for each 6-in. compacted layer within the top five (5) ft. of fill. (c) For fills greater than 2000 ft. in length, break into equal sections not to exceed 2000 ft. and test each section in accordance with (b) above.		One IA shall be conducted on each compaction technician once per project regardless of the structure or material type (box culvert, pipe, Abutment, retaining wall or embankment). IA shall consist of a split density test in situ, observing technician technique, checking equipment calibrations and calculations
Embankment in Place Density (Soils/Embankment)	Sect. 303	VTM-10	In the finished subgrade in both cut and fill sections, a minimum of one (1) test represented by the average of five nuclear density	NA	One IA shall be conducted on each compaction technician once per project regardless of the structure or material type (box culvert, pipe, Abutment,
Subgrade	Sec. 305	VTM-10		NA	

IA

VST

Acceptance Testing

Test Ref.

Spec Sect

Material Type

<u>Material Type</u>	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>Acceptance Testing</u>	<u>VST</u>	<u>IA</u>
<u>subgrade cont.</u>			readings shall be performed for each 2000 linear ft. of subgrade for each roadway (full width).		retaining wall or embankment). IA shall consist of a split density test in situ, observing technician technique, checking equipment calibrations and calculations
<b>Aggregate Base and Subbase Material</b>	VDOT Sections 306, 307, & 309		For Method VTM-38A, one (1) depth test shall be conducted for each one-half (1/2) mile of stabilization per paver (mixer) application width. In other words, each separately applied width of stabilization, regardless of roadway width, shall require a series of tests.  For method VTM-38B, the project shall be divided into lots, with each lot stratified, and the location of each test within the stratified section determined randomly. A lot of material is defined as the quantity being tested for		Minimum of one per project, unless quantity of individual material(Base, sub-base, etc.) is less than 500 tons per project, in which case no IA test required for that material
Depth Checks		VTM-38		NA	

Material Type

Spec Sect

Test Ref.

Acceptance Testing

VST

IA

AGGREGATE BASE/  
SUBBASE

Depth Checks Cont.

			<p>acceptance, except the maximum lot size shall be two (2) miles for each paver application width. The randomization procedure used shall be at the direction of the Engineer. (See VTM-38 for example.) Samples shall be taken from the lot at the following rate:</p> <p>Lot Size No. of Samples Required</p> <p>0 - 1 Mile 2</p> <p>1 - 1 1/2 Miles 3</p> <p>1 1/2 - 2 Miles 4</p>		
			<p>When the subgrade, consisting of material-in-place or imported material other than aggregate base, subbase, or select material, is stabilized with cement or lime, one density test (average of 5 readings) shall be conducted for each one-half (1/2) mile of stabilization per paver (mixer) application width. In other words, each separately applied width of stabilization, regardless of roadway width, shall require a separate series of tests.</p>		
In Place Density		VTM-10		NA	<p>One test per project, consisting of the average of 5 readings. Minimum of 5 readings per project, unless total quantity of individual material(Base, sub-base, etc.) is less than 500 tons per project, in which case no IA test</p>

<u>Material Type</u>	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>Acceptance Testing</u>	<u>VST</u>	<u>IA</u>
<b>Treated Subgrade/Subbase, Aggregate Base Material, and Cement Treated Aggregate Base Material</b>	VDOT Sections 306, 307, & 309		<p>For Method VTM-38A, one (1) depth test shall be conducted for each one-half (1/2) mile of stabilization per paver (mixer) application width. In other words, each separately applied width of stabilization, regardless of roadway width, shall require a series of tests.</p> <p>For method VTM-38B, the project shall be divided into lots, with each lot stratified, and the location of each test within the stratified section determined randomly. A lot of material is defined as the quantity being tested for acceptance, except the maximum lot size shall be two (2) miles for each paver application width. The randomization procedure used shall be at the direction of the Engineer.</p>		
Depth Checks		VTM-38		NA	Minimum of one per project, unless quantity of individual material (Base, sub-base, etc.) is less than 500 tons per project, in which case no IA test required for that material

<u>Material Type</u>	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>Acceptance Testing</u>	<u>VST</u>	<u>IA</u>
<u>TREATED SUBGRADE/ SUBBASE, AGGREGATE BASE &amp; CEMENT TREATED AGGREGATE BASE MATERIAL</u>			(See VTM-38 for example.) Samples shall be taken from the lot at the following rate: Lot Size No. of Samples Required 0 - 1 Mile 2 1 - 1 1/2 Miles 3 1 1/2 - 2 Miles 4		
<u>Depth Checks Cont.</u>			When the subgrade, consisting of material-in- place or imported material other than aggregate base, subbase, or select material, is stabilized with cement or lime, one density test (average of 5 readings) shall be conducted for each one-half (1/2) mile of stabilization per paver (mixer) application width. In other words, each separately applied width of stabilization, regardless of roadway width, shall require a separate series of tests.	NA	One test per project, consisting of the average of 5 readings. Minimum of 5 readings per project, unless total quantity of individual material(Base, sub-base, etc.) is less than 500 tons per project, in which case no IA test
<u>In Place Density</u>		VTM-10			
<b>Clearing and Grubbing</b>	VDOT Section 301				
Ensure activities are confined to limits and seeded within 30 days of disturbance		N/A	Daily		Weekly

<u>Material Type</u>	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>Acceptance Testing</u>	<u>VST</u>	<u>IA</u>
<b>Erosion and Siltation Control</b>	VDOT Section 303.03 & Current Virginia DCR Specifications				
Monitor for correct installation and Maintenance		N/A	Daily		After rain event
<b>Undercut</b>	VDOT Section 303.04				
Review area to determine need for undercut		N/A	Prior to start of work at each location	All reports reviewed by Locality Project Manager to verify qualified inspector and correct equipment	One (1) report reviewed per month during production to verify qualified inspector and qualified personnel
Measure undercut area				All calculations/reports checked/reviewed by Locality Project Manager to verify qualified inspector and correct equipment	One (1) calculation/report checked/reviewed to verify qualified inspector and correct equipment
<b>Overlay Sands</b>					
Grade D Silica Sand	Special Provision		One bag per project tested in AMRL lab.	NA	NA

<b>Acceptance/VST/IA Frequency - Hydraulic Cement Concrete</b>						
<b>Material Type</b>	<b>Spec Section</b>	<b>Test Reference</b>	<b>Acceptance Testing</b>	<b>VST</b>	<b>IA</b>	
<b>Cast-In-Place Structures and Bridge Concrete</b>	VDOT Section 217					
Concrete Entrained Air Content (CIP Concrete)	217.08	ASTM C231 or C173	Test every load, except for bridge decks, in which case one test per truck-load for the first 3 trucks and then one test for every third truckload thereafter, provided results remain within 1.0% of median of design range. Test also required when making compressive specimens	NA		One test shall be made on the same batches of concrete from which cylinders are taken
Slump of Hydraulic Cement Concrete (CIP Concrete)	217.08	ASTM 143	Test every load and when making compressive specimens	NA		One test shall be made on the same batches of concrete from which cylinders are taken
Temperature of Concrete (CIP Concrete)	217.10	ASTM C1064	Test every load and when making compressive specimens	NA		One test shall be made on the same batches of concrete from which cylinders are taken

<u>Material Type</u>	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>Acceptance Testing</u>	<u>VST</u>	<u>IA</u>
<u>CAST-IN-PLACE STRUCTURE &amp; BRIDGE CONCRETE</u>					
Compressive Strength of Concrete Cylinders (CIP Concrete)	217.08	ASTM C31 & C39	One set of three cylinders per every 100 CY and at least two sets of cylinders per structure per class of concrete.	NA	Minimum of one set per 1000 cubic yards of structural concrete. Not required for projects having less than 300 cubic yards. Cylinders should be from the same load as acceptance samples.
Chloride Permeability Concrete Cylinders (CIP Concrete)	Check Plan sheets	VTM-112	One set of two cylinders per every 100 CY and at least two sets of cylinders per structure per class of concrete.	NA	Non required if performed in VDOT or AMRL accredited laboratory
Concrete Reinforcing Steel (CIP Concrete) elongation, yield strength and ultimate strength	223	ASTM A615	Accepted based on certification provided by the fabricator. Verify manufacturer's certificates for every shipment for acceptance prior to placement.	One sample per project per manufacturer per most common size bar.	Non required if performed in VDOT or AMRL accredited laboratory
<b>Pavement</b>	VDOT Section 217				
Concrete Entrained Air Content (Pavement)	217.08	ASTM C231 or C173	One test per hour & when casting flexural specimens	NA	One test per four roadway miles or fraction thereof, with a minimum of one per project

<u>Material Type</u>	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>Acceptance Testing</u>	<u>VST</u>	<u>IA</u>
<b>PAVEMENT</b>					
Slump of Hydraulic Cement Concrete (Pavement)	217.08	ASTM 143	Two tests daily & when making flexural specimens	NA	One test shall be made on the same batches of concrete from which cylinders taken
Temperature of Concrete (Pavement)	217.10	ASTM C1064	One test per hour & when casting flexural specimens	NA	One test shall be made on the same batches of concrete from which cylinders taken.
Compressive Strength of Concrete Cylinders (Pavement)	217.08	ASTM C31 & C39	If pavement is accepted based on cylinder strength. One (1) set of three (3) cylinders cast for every 100 cy and at least one for each days concreting operation	NA	Minimum one set per 1000 cubic yards of structural concrete, except that IA will not be required for projects having less than 300 cubic yards.
Flexural Strength Beams	316.04	ASTM C293	If pavement is to be used as haul road or prior to 14 days then, At least one beam cast for each days concreting operation.	NA	NA
Concrete Reinforcing Steel (pavement) elongation, yield strength and ultimate strength	223	ASTM A615	Accepted based on certification provided by the fabricator. Verify manufacturer's certificates for every shipment for acceptance prior to placement.	One sample of two pieces 24 inches long from the most prevalent bar size per structure, with no two samples being the same size	Non required if performed in VDOT or AMRL accredited laboratory
<b>Miscellaneous Concrete</b>	VDOT Section 217				
Concrete Entrained Air Content (Miscellaneous Concrete)	217.08	ASTM C231 & C173	One test per day and when making compressive specimens	NA	NA

<u>Material Type</u>	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>Acceptance Testing</u>	<u>VST</u>	<u>IA</u>
<b>MISC CONCRETE</b>					
Slump of Hydraulic Cement Concrete (Miscellaneous Concrete)	217.08	ASTM C143	One test per day and when making compressive specimens	NA	NA
Temperature of Concrete (Miscellaneous Concrete)	217.10	ASTM C1064	One test per day and when making compressive specimens	NA	NA
Compressive Strength of Concrete Cylinders (Miscellaneous Concrete)	217.08	ASTM C31 & C 39	One (1) set of three (3) cylinders per every 250 CY and at least one set per day	NA	One (1) set of three (3) cylinders per every 25,000 CY (cumulative) minimum 1 per project.
Concrete Reinforcing Steel (Miscellaneous Concrete)	223	ASTM A615	Accepted based on certification provided by the fabricator. Verify manufacturer's certificates for every shipment for acceptance prior to placement.	One sample of two pieces 24 inches long from the most prevalent bar size per structure, with no two samples being the same size	Non required if performed in VDOT or AMRL accredited laboratory
<b>Concrete Curing Materials</b>	VDOT Section 220				
Burlap		AASHTO M182, class 3	Verification of LM # and lot numbers if from QA supplier Approved list 44, if not test one sample per lot number	NA	Non required if performed in VDOT or AMRL accredited laboratory
White liquid membrane Curing Compound		VTM - 2	Verification of LM # and batch numbers if from QA supplier Approved list 44, if not test one sample per batch number	NA	Non required if performed in VDOT or AMRL accredited laboratory
Fugitive Dye Liquid Membrane Curing Compound		VTM - 2	Verification of LM # and batch numbers if from QA supplier Approved list 44, if not test one sample per batch number	NA	Non required if performed in VDOT or AMRL accredited laboratory

<u>Material Type</u>	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>Contractor QC Test</u>	<u>VST</u>	<u>IA</u>
<b>ASPHALT CONCRETE PAVEMENT</b>					
In Place Pavement Density (for all asphalt except Stone Matrix Asphalt (SMA))		VTM-006; VTM-32	<b>Density</b> - min. 1 core per location not long enough to establish roller pattern/control strip	<b>Density</b> - One (1) random core per 10 QC locations. Independent of contractor cores.	Obtain cores taken for density. Reweigh at least 10% of these cores in laboratory to confirm density. Observe one (1) density determination per ten (10) locations performed by QC technician. Minimum 1 per project.
Depth Checks		VTM-32	Depth checks of surface and intermediate material required only if specific plan depths are called for, not when plans specify rate of application. One (1) per 1/2 mile per lane width, minimum one (1) test per roadway, maximum lot size 2 mile (4 tests)	NA	Select one (1) QC core per five (5) lots and remeasure thickness. A minimum of one (1) per project.
In Place Pavement Density and Depth Checks by cores for Stone Matrix Asphalt (SMA)		VTM-006	Establish trial section and test sections. Minimum of one (1) sample per 1,000 feet with a maximum of 5 samples per day/night's production for density and depth for test sections. Three (3) cores for test strip.	Two (2) stratified random cores per one day/ night production obtained independently of contractor. Minimum two (2) per project.	Locality Representative Independently weigh and measure a minimum of one (1) QC core per day/night's production Locality representative will observe the taking of these cores and will maintain control of these cores once obtained
<b>Permanent Pavement Marking</b>	VDOT Section 512		<b>Contractor QC Testing</b>	<b>VST</b>	<b>IA</b>

<u>Material Type</u>	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>Contractor QC Test</u>	<u>VST</u>	<u>IA</u>
<u>PERMANENT PAVEMENT MARKING</u>				Randomly select three (3) ten foot in place sections of markings per day and measure thickness and width. Skip lines and edge lines are considered separately. Inspect PM for correct placement, straightness and edges. Observe the bead embedment, color (night and day) and brightness/reflectivity. Inspect structure of tape to ensure patterned waffles have not been damaged by roller	Review all C-85 reports during production to verify that plan quantities match application quantities and that daily measurements are performed according to VTM 94.
Permanent Pavement Marking - Preformed Tape		VTM-94	Daily perform VTM 94 at start up with periodic checks every three hours of operation	Randomly select three (3) ten-foot in place sections of markings per day and measure thickness and width. Skip lines and edge lines are considered separately. Inspect PM for correct placement, straightness and edges. Observe the bead embedment, color (night and day) and brightness/reflectivity. Review application rates to ensure proper thickness has been applied	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 C-85 reports during production to verify that calculated quantities match application rates and that daily measurements are performed according to VTM 94.
Permanent Pavement Marking - Liquid Materials (Paint, thermoplastic and epoxy)		VTM-94	Daily perform VTM 94 at start up with periodic checks every three hours of operation		

## QC/VST/IA Frequency - Misc Roadway and Structure

Material Type	Spec Section	Test Reference	QC Testing	VST	IA
<b>Pre-cast Structures</b>	VDOT Section 404				
Verify bedding material is installed properly and that pre-cast materials are not chipped or cracked		N/A	Daily and when shipment arrives on project	Inspect Precast structure before backfilling operations begin.	Inspect Pre-cast structures when received on job site. Inspect bedding before setting structure.
<b>Load Bearing Piles</b>	VDOT Section 403				
Monitor operation and document blow counts		N/A	Continuously	Review documentation weekly.	Daily
Perform Center of Gravity Calculations		N/A	For each Foundation	one out of every twenty (20) foundations	one out of every ten (10) foundations
<b>Structural Steel</b>	VDOT Section 407				
Receive Bolts, sample, verify the documentation is complete and perform laboratory Skidmore, tension and galvanized coating testing	VDOT 226.02(h)		Each nut-bolt-washer (NBW) assembly lot shall be sampled at a minimum rate of 2 assemblies per NBW lot. The documentation	Ea. NBW assembly lot shall be tested, one bolt in direct tension, one assembly for galvanized coating and one nut and bolt for rotational capacity testing (Rot-	The 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

13.2.G-17

April 2015

<u>Material Type</u>	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>QC Testing</u>	<u>VST</u>	<u>IA</u>
<b><u>STRUCTURAL STEEL</u></b> cont. Receive bolts, sample, verify the documentation is complete & perform lab Skidmore, tension & galvanized coating testing			shall be collected from the bolt supplier and the galvanizer for each lot and supplied along with the samples to the QAM. QC personnel shall monitor the storage and conditions of the bolts to insure they remain in good well lubricated condition.	Cap) as per section 226	suppliers. The results of the VST shall be reviewed to insure the material passed the tests.
Verify daily Skidmore testing is performed IAW (in accordance with) proper procedures for each lot  Note: NBW assembly may be reused after Skidmore testing in a connection if no defects are noted in visual inspection and the nut runs freely up the bolt for the full thread length - Only new NBW assemblies may be tested each day	VDOT 407.06(c)		Ea. Day & Ea. NBW lot (3 bolts per lot) used shall be Rot-Cap tested in the Skidmore device IAW proper procedures	Minimum three (3) NBW assemblies for each lot being installed shall be observed by the IA inspector	Three NBW assemblies from each lot shall be Rot-Cap tested at the QAMs lab independently each week during erection
Verify the installation crews are using proper installation procedures IAW specs. to tension the bolts	VDOT 407.06		Monitor ea. Crew (2-3 workers) during erection to insure proper technique (TOTN – turn-of-the-nut or DTI – direct tension indicating washers) is followed	NA	Monitor ea. Crew (2-3 workers) for a half dozen NBW assemblies once at the beginning of each four hour work period
Verify the bolted connections have been tensioned properly using statistical sampling frequency and a calibrated torque wrench	VDOT 407.06(c)4	ASTM 325	For each connection, test 10% or a minimum of 2 NBW assemblies verifying the required torque. Complete testing before the deck is formed.	Test 2 NBW assemblies in 25% of the slip critical connections (minimum of 2 connections per transverse line of splices) and 2 NBW assemblies in 10% of the secondary member connections	Monitor all the torque testing for each main member connection (slip-critical connections) and at the beginning of each period where secondary members are being checked.

<u>Material Type</u>	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>QC Testing</u>	<u>VST</u>	<u>IA</u>
<b>STRUCTURAL STEEL</b>					
Rebar Splicer (Tension Test)		ASTM A615	1 sample per manufacturer per most common size per structure (Contractor is to install pieces)	NA	Verify Machine Calibration annually
<b>Protective Coating of Metal Structures</b>	VDOT Section 411		<b>Contractor QC testing</b>	<b>VST</b>	<b>IA</b>
Monitor surface preparation		SSPC-PA	Three surface profile measurements per day of blasting.	Review all reports showing the preparation protocols	Two (2) surface profile measurements per week of blasting.
check coating thickness according to SSPC -PA		SSPC-PA	Five(5) spot measurements (15 Readings) per day as defined in PA-2 for coating thickness after each layer of paint at each location	Review all reports showing-painting application rates including the tests performed on profiles and thicknesses.	One spot measurement (3 readings) as defined in PA-2 for coating thickness after each layer of paint at each location
<b>Underdrains</b>	VDOT Section 501				
Inspect to ensure no deficiencies		VTM 108	All accessible outlet locations; Additionally a minimum of 10% of longitudinal sections	One (1) every twenty-five (25) outlet locations. A minimum of one per project independent of IA.	Observe 10% of outlet locations; Additionally a minimum of 1% of longitudinal sections
<b>Guardrail</b>	VDOT Section 505				
Verify that guardrail is installed per specifications and at proper height			Daily	Spot-check every 500 linear feet for proper height	Spot-check every 500 linear feet for proper height.

<u>Material Type</u>	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>QC Testing</u>	<u>VST</u>	<u>IA</u>
<b>Fencing</b>	VDOT Section 507				
Verify fencing type, height and location		N/A	Daily	Weekly	
Barbed Wire	VDOT Section 242	ASTM A121	One sample every 50 rolls or spools	NA	NA
Chainlink Fence	VDOT Section 242	AASHTO M181	One sample from 3 rolls for every 50 rolls.	NA	NA
<b>ROW Monuments</b>	VDOT Section 503				
Verify monument type and location		N/A	10% of ROW monuments	1% of ROW monuments	
<b>Maintenance of Traffic</b>	VDOT Section 512				
Monitor installation and maintenance and use Work Zone Safety Checklist		N/A	Daily (Locality Inspector)	Weekly (Locality Project Manager)	
<b>Sound Wall Barriers</b>	VDOT Section 519				
Verify location and installation with shop drawings		N/A	Daily	Weekly	
<b>Topsoil and Seeding</b>	VDOT Section 602/603				

Material Type

**TOPSOIL & SEEDING**

Verify proper material is utilized at application rates from plans

Spec Sect

Test Ref.

QC Testing

VST

IA

	<u>Spec Sect</u>	<u>Test Ref.</u>	<u>QC Testing</u>	<u>VST</u>	<u>IA</u>
<b>Traffic Signs</b>	VDOT Section 512	N/A	Daily	Weekly	
Verify that signs meeting current standards are utilized in locations per plans		N/A	Daily	Weekly	
<b>Traffic Signals</b>	VDOT Section 703				
Monitor installation for conformance with plans and specifications		N/A	Daily	Weekly	
<b>Water and Sewer Facilities</b>	VDOT Section 520				
Monitor installation for conformance with plans and specifications		N/A	Daily	Weekly	
<b>Electrical and Signal Components</b>	VDOT Section 238				
Tether Wire		ASTM A475	One sample per project	NA	NA
Span Wire		ASTM A475	One sample per project	NA	NA
<b>Masonry</b>	VDOT Section 202				
Wall Units			one sample consisting of 10 units per 10,000 units	NA	NA

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- o Verification testing shall be required if contractor's workforce performs QC testing that is used for Acceptance testing. If Locality or its consultant performs Acceptance testing, Verification testing shall not be required.
- o IA testing shall be conducted by different personnel and different equipment than used for the QC/acceptance testing, QC/acceptance sampling or Verification testing.

## 1001 – Summary

### PART 1 - GENERAL

#### 1.1 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: Martin Luther King Jr. Way Widening
  - 1. Project Location: Harrisonburg, Virginia
- B. Owner: City of Harrisonburg
  - 1. Owner's Representative: Tom Hartman.
- C. Engineer: Vanasse Hangen Brustlin, Inc. of Virginia Beach, Virginia
- D. Briefly, and without force and effect upon the Contract Documents, the work of the contract can be summarized as follows:
  - 1. The Work includes roadway widening and a construction of sidewalk along the Martin Luther King Jr. Way. Site improvements include earthwork, pavement and concrete flat work, drainage and erosion control measures.
- E. Use of Professional Seals on Bidding, Procurement, and Contract Documents: For the purposes of this paragraph, the term “Regulant” refers to the individual who signs and seals parts of the Contract Documents (e.g. the Drawings and Specifications). Certain information has been excerpted verbatim from a source or sources (e.g., UL Assemblies, SMACNA details, IBC code text) which was considered or used by Regulant in preparing parts of the Contract Documents, as follows:
  - 1. The excerpted information was neither prepared under the direct control nor personal supervision nor created by the Regulant, as it was prepared by the source and owner of the excerpted information.
  - 2. For purposes of bidding, procuring, and performance of the Work, and in any event of conflicts or ambiguities between the excerpted information in the Contract Documents and the requirements of applicable codes and standards, provide the better quality or greater quantity of Work which, at a minimum, complies with the requirements of the applicable codes and standards.
  - 3. Advise Engineer immediately upon becoming aware of requirements of the Work which are not consistent with the requirements of the excerpted information.
  - 4. Attribution is acknowledged for information obtained and included herein verbatim from other source or sources.
  - 5. Regulant has taken into consideration and used certain excerpted information from other sources which are applicable to the Contract Documents, and the Regulant indicates by its seal that it is assuming responsibility for its services in use and application of the excerpted information to the requirements of Work, but not for the excerpted information itself which was prepared by others. Regulant does not indicate by its seal that it is responsible for use or application of other information in such source or sources which was not included herein.

#### 1.2 TYPE OF CONTRACT

- A. Non-professional services needed for construction or facilities maintenance.

### 1.3 WORK PHASES

- A. The Work shall be conducted in phases as shown on the plans.
- B. Before commencing Work, submit a schedule showing the sequence, commencement and completion dates, for all Work.

### 1.4 WORK UNDER OTHER CONTRACTS

- A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract.

### 1.5 USE OF PREMISES

- A. General: Contractor shall have limited use of premises for construction operations as indicated on Drawings by the Contract limits.
- B. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
  - 1. Owner Occupancy: Allow for Owner occupancy of Project site and use by the public as outlined by the Construction Manager.
  - 2. Driveways and Entrances: Keep driveways parking garage, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
    - a. Schedule deliveries to minimize use of driveways and entrances.
    - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

### 1.6 WORK RESTRICTIONS

- A. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
  - 1. Notify Construction Manager not less than two days in advance of proposed utility interruptions.
  - 2. Do not proceed with utility interruptions without Construction Manager's written permission.

### 1.7 CONSTRUCTION SEQUENCING PROCEDURES:

- A. Coordination: Refer to the Contract Documents and coordinate all work which is shown on the drawings and included in the Project Manual as part of the project, and complete such work during stipulated dates indicated.
- B. After the award of the Contract for the project, prepare and submit for the Engineer's and Owner's approval a final Construction Schedule for all proposed work. The Construction Schedule shall be prepared to reflect the sequence of each area of work.
- C. Coordination: Coordinate daily functions and activities to make certain there are no interruptions. The Owner's representative at the facility will be designated at the pre-construction conference. The Contractor on the project shall cooperate with and coordinate construction activities with the Owner's designated representative. Delay claims, resulting from failure to coordinate work and cooperate with the Owner's designated representative will not be allowed.

1.8 GENERAL SEQUENCING GUIDELINES:

- A. It is required that the Contractor and all Subcontractors carefully phase the work to permit orderly flow of vehicular traffic during construction.
- B. Construction site access, isolation of construction operations, safety measures, and other issues will be coordinated and clarified at Pre-construction conference as outlined in the Contract Documents.
- C. Provide security measures to protect the existing site construction areas during the entire contract period. Any damage to site construction areas due to lack of security shall be repaired or replaced by the General Contractor to the satisfaction of the Owner and at no additional cost to the Owner. No increase in the completion time(s) will be allowed for any security-related problems.
- D. Coordinate and schedule security measures with the Owner.
- E. Provide self-contained toilet units in the exterior staging area. The Owner's interior building toilet facilities shall be "off-limits" to all construction personnel.
- F. After hours and week-end work shall be coordinated in advance with the Owner.
- G. Verify all existing grades, lines, levels, and horizontal and vertical dimensions, prior to commencing construction operations. Report any errors or inconsistencies to the Engineer BEFORE beginning any work on this project.
- H. Soil and Sediment Erosion Control: The Contractor is required to strictly observe regulations regarding erosion and sediment control procedures. If corrective action is required and not responded to within 24 hours of notice the Owner shall reserve the rights to perform the work and back charge the Contractor.

1.9 PATCH AND REPAIRING:

- A. Replace all concrete walks, curbs, gutters, paving, and topsoil and seed where such is not indicated to be disturbed, where disturbed by construction work, to the satisfaction of the Owner.

1.10 PROTECTION AND SECURITY OF THE EXISTING BUILDING:

- A. Any damage to building due to the Contractor providing inadequate protection or security shall be repaired using matching materials at no cost to Owner.

1.11 CONNECTIONS TO EXISTING WORK

- 1. The Contractor shall provide all interface and tie-in connections of the Work to all existing work and adjustments to the existing work, as necessary. All Work of this contract and existing in-place work shall function as complete system[s] upon completion of the project.

1.12 CLEANING AND PROTECTION:

- A. General:
  - 1. During handling and installation, clean and protect construction in progress and adjoining materials in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
  - 2. Supervise construction activities to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.
  - 3. Retain stored items in orderly arrangement allowing maximum access, not impeding traffic or drainage.

4. Do not allow accumulation of scrap, debris, waste material, other items not required for construction of this work.
5. At least twice each month, and more often if necessary, completely remove all scrap, debris, and waste material from the job site.
6. Provide adequate storage for all items awaiting removal from the job site, observing requirements for fire protection and protection of the ecology.

B. Site:

1. Daily, and more often if necessary, inspect the site and pick up all scrap, debris, and waste material. Remove such items to place designated for their storage.
2. Weekly, and more often if necessary, inspect all arrangements of materials stored on the site. Restack, tidy, or otherwise service arrangements to meet requirements of subparagraph above.
3. Maintain the site in neat, orderly condition at all times.

1.13 SOILS INVESTIGATION

- A. Soils investigations have been performed for the Owner. The Engineer and Owner assume no responsibility for actual subsurface conditions.
- B. If the Bidder deems the soils investigations to be inadequate or inaccurate, he may conduct his own investigation at his own expense. Prior to bid opening, bidder must inform the Owner and the Engineer in writing of his concern and obtain permission in writing to conduct his investigation.

1.14 DRAWINGS AND SPECIFICATIONS

- A. The successful Contractor shall be responsible for including all items and parts of the Work, as defined by requirements of the Contract Documents. Unless the Contract Documents specifically designate an item of part of the Work that is to be provided by a Subcontractor, then it is the sole responsibility of the Contractor to determine and allocate/assign the performance of each item or part of the Work. The Contractor shall not be entitled to any compensation or adjustment of time or to any other Claim due to any provision of the Contract Documents which assigns or allocates, or fails to assign or allocate, the performance of any item or part of the Work to any specific Subcontractor of Contractor. In no event shall the Contractor be entitled to request an interpretation or decision by, or any determination or instruction from, the Engineer concerning or about any assignment or allocation of parts of the Work. The Engineer will not be responsible to arbitrate or otherwise resolve any dispute or differences about such allocation or assignment between Contractor and any Subcontractors.
- B. "Summary" and "Related Sections" provisions in the Specifications, if any are stated or referred to in any Specification, are provided only for general reference and for convenience, and do not limit or alter in any way the requirements for the provision of the Work in the Contract Documents. Items or parts of the Work, and related provisions of the Contract Documents, even though not listed or stated in any Summary or Related Section provision, but which are indicated elsewhere in the Contract Documents, shall be included in the Work. Even though a Summary or Related Section may not refer to, state, or list each and every part of the Contract Documents which may include provisions about a specific item or part of the Work, all of the other applicable provisions of the Contract Documents remain in full force and effect, and shall be included in determining the requirements for the Work.

END OF SECTION

# 1002 - VSMP GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES

## PART 1 - GENERAL

### 1.1 DESCRIPTION

- A. This Section specifies requirements for the individuals that are in control of the site to implement a Storm Water Pollution Prevention Plan (SWPPP). This SWPPP shall be prepared by the Contractor as part of the filings for a Virginia Stormwater Management Program (VSMP) Permit as administered by the Virginia Department of Environmental Quality (DEQ) through the National Pollution Discharge Elimination System (NPDES) General Permit for Construction Activities.
- B. The storm water pollution prevention measures contained on the site drawings are the minimum required by the Virginia Department of Environmental Quality. The Contractor is required to provide additional measures to prevent pollution from storm water discharges in compliance with the VSMP regulations and all other local, state, and federal requirements.
- C. VSMP Permit requirements:
  - 1. Operations of construction activities resulting in land disturbance equal to or greater than one acre must apply for Construction General Permit Coverage.
  - 2. Operators of construction activities resulting in land disturbance less than one acre that are part of a larger common plan of development or sale that ultimately disturbs one or more acres must apply for Construction General Permit Coverage. A larger common plan of development or sale is a contiguous area where separate and distinct construction activities may be taking place at different times on different schedules. General permit coverage is required if one or more acres of land will be disturbed, regardless of the size of the individually owned or developed sites. A larger common plan of development or sale applies to various types of land development including but not limited to residential, commercial, or industrial use.
  - 3. For permit coverage under a Construction Activity General Permit issued by the Board for a state or federal agency that administers a project in accordance with approved annual standards and specifications, a Phase I Land Clearing permit is required for areas of disturbance equal to or greater than 5 acres. A Phase II Land Clearing permit is required for areas of disturbance equal to or greater than 1 acre and less than 5 acres.
  - 4. Permit document samples are provided at the end of this specification section and shall be used for reference only. For further information and to download pdf copies of the latest permit documentation, please visit:  
<http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMP/Permits/ConstructionGeneralPermit.aspx>.
- D. The Contractor shall conduct the storm water management practices in accordance with local regulations and governing authorities, the VSMP Permit regulations, and

any enforcement action taken or imposed by federal, state, or local agencies. The cost of any fines, construction delays, and remedial actions resulting from the Contractor's failure to comply with all provisions of local regulations and VSMP Permit requirements shall be paid for by the Contractor at no additional cost to the Owner.

- E. As a requirement of the VSMP permitting program, each contractor and subcontractor shall execute a Contractor's Certification Form indicating that they have read and understand the regulations.
- F. The respective Contractor(s) who filed a Registration Statement Form shall prepare and file a VSMP General Permit Notice of Termination (NOT) form. A Notice of Termination form may only be submitted after one or more of the following conditions have been met:
  - 1. Final stabilization has been achieved on all portions of the site for which the operation is responsible;
  - 2. Another operator has assumed control over all areas of the site that have not been finally stabilized;
  - 3. Coverage under an alternative VPDES or VSMP permit has been obtained; or
  - 4. For residential construction only, temporary stabilization has been completed and the residence has been transferred to the homeowner.
- G. The Notice of Termination (NOT) form must be submitted within 30 days of one of the above conditions being met. Authorization to discharge terminates seven (7) days after the Notice of Termination is submitted. For the purposes of this permit, a Notice of Termination that is mailed is considered submitted once it is postmarked.

### 1.3 REFERENCES

- A. Virginia Stormwater Management Act – Code of Virginia Stormwater Law (Effective as of July 1, 2006).
- B. Virginia Stormwater Management Program (VSMP) Regulations.
- C. General Permit for Discharges of Stormwater from Construction Activities – Authorization to Discharge Under the Virginia Stormwater Management Program and the Virginia Stormwater Management Act.
- D. Guidance Manual – “Storm Water Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices” (EPA 832-R-005).
- E. Summary of Guidance Manual – “Storm Water Management for Construction Activities, Developing Pollution Prevention Plans and Best Management Practices” (EPA).

#### 1.4 SUBMITTALS

- A. Submit a copy of the VSMP General Permit Registration Statement filed with DEQ.
- B. Submit a copy of the VSMP General Permit Notice of Termination (NOT) filed with DEQ at completion of project.

#### 1.5 INSPECTIONS

- A. Inspections by qualified personnel must be conducted of all areas of the site disturbed by construction activity, and areas used for storage of materials that are exposed to stormwater. "Qualified Personnel" means a licensed professional engineer, responsible land disturber (RLD), or other knowledgeable person who (i) holds a certificate of competence from the board in the area of the project inspection; or (ii) is enrolled in the board's training program for project inspection or combined administrator and successfully completes such program within one year of enrollment.
- B. Inspections shall be conducted at least once every 14 calendar days and within 48 hours of the end of any runoff producing storm event. Where areas have been finally or temporarily stabilized or runoff is unlikely due to winter conditions (e.g., the site is covered with snow or ice, or frozen ground exists) such inspections shall be conducted at least once every month.
- C. A report summarizing the scope of the inspection, names and qualifications of personnel making the inspection, the dates of the inspection, major observations relating to the implementation of the SWPPP, and actions taken in accordance with Section II.D4.d of the VSMP Permit shall be made and retained as part of the SWPPP in accordance with Section III.B. of the VSMP Permit. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the SWPPP and the VSMP Permit.

#### PART 2 – PRODUCTS (NOT USED)

#### PART 3 - EXECUTION

##### 3.1 STORM WATER POLLUTION PREVENTION PRINCIPLES

- A. The following general principles shall be followed by the Contractor in preparing the SWPPP and during the construction phase:
  - 1. Protect and maintain existing vegetation wherever possible.
  - 2. Minimize the area of disturbance.
  - 3. To the extent possible, route unpolluted flows around disturbed areas.
  - 4. Install mitigation devices as early as possible.
  - 5. Minimize the time disturbed areas are left unstabilized.
  - 6. Maintain erosion and siltation control devices in proper condition.

3.2

CONTRACTOR'S STORM WATER POLLUTION PREVENTION PLAN

- A. The Contract Drawings and Specifications identify a portion of the required facilities and temporary erosion and sedimentation control devices. The Contractor shall prepare a SWPPP in accordance with VSMP Permit requirements which identifies the location of construction facilities and proposes additional erosion and sedimentation control measures as required to minimize pollution. The Contractor's SWPPP shall include provisions for, but not be limited to the following:
  - 1. Project construction and sequencing.
  - 2. Construction trailers.
  - 3. Laydown areas.
  - 4. Equipment storage areas.
  - 5. Stockpile areas.
  - 6. Spill response procedures.
  
- B. Reproducible copies of one or more of the Contract Drawings will be provided to the Contractor to serve as a base for the Contractor to develop a SWPPP and modify as necessary as construction proceeds.

**STORM WATER POLLUTION PREVENTION PLAN**

**CONTRACTOR'S CERTIFICATION**

PROJECT: \_\_\_\_\_

ADDRESS \_\_\_\_\_

DATE: \_\_\_\_\_

CONTRACTOR/SUBCONTRACTOR:

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

I certify under penalty of law that I understand the terms of conditions of the Virginia Stormwater Management Program (VSMP) General Permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

\_\_\_\_\_  
Company

**Registration Statement**  
**General VPDES Permit for Discharges of Stormwater from Construction Activities (VAR10)**

(Please Type or Print All Information)

1. **Construction Activity Operator:** *(General permit coverage will be issued to this operator. The Certification in Item #12 must be signed by the appropriate person associated with this operator.)*

Name: \_\_\_\_\_

Contact: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Phone: \_\_\_\_\_

Email address (if available): \_\_\_\_\_

Indicate if DEQ may transmit general permit correspondence electronically: Yes  No

2. **Existing General Permit Registration Number (for renewals only):** \_\_\_\_\_

3. **Name and Location of the Construction Activity:**

Name: \_\_\_\_\_

Address (if available): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

County (if not located within a City): \_\_\_\_\_

Latitude (decimal degrees): \_\_\_\_\_ Longitude (decimal degrees): \_\_\_\_\_

**Name and Location of all Off-site Support Activities to be covered under the general permit:**

Name: \_\_\_\_\_

Address (if available): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

County (if not located within a City): \_\_\_\_\_

Latitude (decimal degrees): \_\_\_\_\_ Longitude (decimal degrees): \_\_\_\_\_

4. **Status of the Construction Activity (check only one):** Federal  State  Public  Private

5. **Nature of the Construction Activity (e.g., commercial, industrial, residential, agricultural, oil and gas, etc.):**

\_\_\_\_\_

6. **Name of the Receiving Water(s) and Hydrologic Unit Code (HUC):**

Name: \_\_\_\_\_ Name: \_\_\_\_\_

HUC: \_\_\_\_\_ HUC: \_\_\_\_\_

7. **If the discharge is through a Municipal Separate Storm Sewer System (MS4), the name of the MS4 operator:**

\_\_\_\_\_

8. **Estimated Project Start and Completion Date:**

Start Date (mm/dd/yyyy): \_\_\_\_\_ Completion Date (mm/dd/yyyy): \_\_\_\_\_

9. **Total Land Area of Development (to the nearest one-hundredth acre):** \_\_\_\_\_

Estimated Area to be Disturbed (to the nearest one-hundredth acre): \_\_\_\_\_

10. **Is the area to be disturbed part of a larger common plan of development or sale?** Yes  No

11. **A stormwater pollution prevention plan (SWPPP) must be prepared in accordance with the requirements of the General VPDES Permit for Discharges of Stormwater from Construction Activities prior to submitting this Registration Statement. By signing this Registration Statement the operator is certifying that the SWPPP has been prepared.**

12. **Certification:** "I certify under penalty of law that I have read and understand this Registration Statement and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(Please sign in INK. This Certification must be signed by the appropriate person associated with the operator identified in Item #1.)

**Notice of Termination  
General VPDES Permit for Discharges of Stormwater from Construction Activities (VAR10)**

(Please Type or Print All Information)

**1. Construction Activity Operator:**

Name: \_\_\_\_\_

Contact: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Phone: \_\_\_\_\_

Email address (if available): \_\_\_\_\_

**2. Name and Location of the Construction Activity:** (As listed on the Registration Statement.)

Name: \_\_\_\_\_

Address (if available): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

County (if not located within a City): \_\_\_\_\_

Latitude (decimal degrees): \_\_\_\_\_ Longitude (decimal degrees): \_\_\_\_\_

**3. General Permit Registration Number:** \_\_\_\_\_

**4. Reason for Terminating Coverage Under the General Permit:** (The operator shall submit a Notice of Termination after one or more of the following conditions have been met.)

A. Necessary permanent control measures included in the SWPPP for the site are in place and functioning effectively and final stabilization has been achieved on all portions of the site for which the operator is responsible. When applicable, long-term responsibility and maintenance requirements for permanent control measures shall be recorded in the local land records prior to the submission of a notice of termination;

B. Another operator has assumed control over all areas of the site that have not been finally stabilized and obtained coverage for the ongoing discharge;

C. Coverage under an alternative VPDES or state permit has been obtained; or

D. For residential construction only, temporary soil stabilization has been completed and the residence has been transferred to the homeowner.

*The notice of termination should be submitted no later than 30 days after one of the above conditions being met. Authorization to discharge terminates at midnight on the date that the notice of termination is submitted for the conditions set forth in subsections B through D above, unless otherwise notified by the VSMP authority or the Department. Termination of authorizations to discharge for the conditions set forth in subsection A above shall be effective upon notification from the Department that the provisions of subsection A have been met or 60 days after submittal of the notice of terminations, whichever occurs first.*

**5. Permanent Control Measures Installed:** (When applicable, a list of the on-site and off-site permanent control measures (both structural and nonstructural) that were installed to comply with the stormwater management technical criteria. Attach a separate list if additional space is needed.)

**Permanent Control Measure #1**

Type of Permanent Control Measure: \_\_\_\_\_

Date Functional: \_\_\_\_\_

Address (if available): \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

County (if not located within a City): \_\_\_\_\_

Latitude (decimal degrees): \_\_\_\_\_ Longitude (decimal degrees): \_\_\_\_\_

Receiving Water: \_\_\_\_\_

Total Acres Treated: \_\_\_\_\_ Impervious Acres Treated: \_\_\_\_\_

**Permanent Control Measure #2**

Type of Permanent Control Measure: \_\_\_\_\_  
Date Functional: \_\_\_\_\_  
Address (if available): \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
County (if not located within a City): \_\_\_\_\_  
Latitude (decimal degrees): \_\_\_\_\_ Longitude (decimal degrees): \_\_\_\_\_  
Receiving Water: \_\_\_\_\_  
Total Acres Treated: \_\_\_\_\_ Impervious Acres Treated: \_\_\_\_\_

**Permanent Control Measure #3**

Type of Permanent Control Measure: \_\_\_\_\_  
Date Functional: \_\_\_\_\_  
Address (if available): \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
County (if not located within a City): \_\_\_\_\_  
Latitude (decimal degrees): \_\_\_\_\_ Longitude (decimal degrees): \_\_\_\_\_  
Receiving Water: \_\_\_\_\_  
Total Acres Treated: \_\_\_\_\_ Impervious Acres Treated: \_\_\_\_\_

6. **Participation in a Regional Stormwater Management Plan:** (When applicable, information related to the participation in a regional stormwater management plan. Attach a separate list if additional space is needed.)

**Regional Stormwater Management Facility**

Type of Regional Stormwater Management Facility: \_\_\_\_\_  
Address (if available): \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
County (if not located within a City): \_\_\_\_\_  
Latitude (decimal degrees): \_\_\_\_\_ Longitude (decimal degrees): \_\_\_\_\_  
Total Site Acres Treated: \_\_\_\_\_ Impervious Site Acres Treated: \_\_\_\_\_

7. **Perpetual Nutrient Credits:** (When applicable, information related to perpetual nutrient credits that were acquired in accordance with § 62.1-44.15:35 of the Code of Virginia. Attach a separate list if additional space is needed.)

**Nonpoint Nutrient Credit Generating Entity**

Name: \_\_\_\_\_  
Perpetual Nutrient Credits Acquired (lbs/acre/year): \_\_\_\_\_

8. **Certification:** "I certify under penalty of law that I have read and understand this Notice of Termination and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_  
Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**(Please sign in INK. This Certification must be signed by the appropriate person associated with the operator identified in Item #1.)**

END OF SECTION

## **1003 – EARTHWORK**

VDOT SPECIFICATION SECTION 303.04 – Procedures – add the following

Blasting of rock excavation shall not be permitted unless otherwise approved by the City of Harrisonburg.

END OF SECTION

## 1004 - SEEDING AND SODDING

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. This Section specifies requirements for soil amendments, seeding, and sodding for site landscape areas.
- B. The work includes:
  - 1. Amendments to topsoil.
  - 2. Seeding, sodding, and mulching.
  - 3. Maintenance of seeded and sodded areas.

#### 1.3 SUBMITTALS

- A. Manufacturers Product Data
  - 1. Submit material specifications and installation instructions where applicable attesting that the following materials meet the requirements specified:
    - a. Soil Amendments
    - b. Seed
    - c. Sod
- B. Soil Test Reports
  - 1. Minimum one month prior to ordering, importing, spreading or amending the topsoil, submit soil test report to the Landscape Architect for review and approval. Do not order materials until the Landscape Architect's approval has been obtained. Delivered materials shall closely match the approved samples.
    - a. Secondary testing of topsoil samples may be required to verify the amount of soil amendment that will be required in order to bring pH levels, percentage of organic matter, and other levels of nutrients within the recommended range without raising soluble salts and other nutrients and micronutrients to toxic levels. This testing will be done as directed by soil test labs to samples of the topsoil with varying amounts of amendments added to each sample and resubmitted to the soil testing agency. Written report of secondary testing with recommendations shall be submitted prior to amendments being added to the topsoil on site. Landscape Architect is to review and approve recommendations.
- C. Certificates
  - 1. The seed vendor's Certificate of Compliance and invoice showing quantity for each grass seed mixture stating botanical and common name, percentage by weight, percentages of purity, weed content, germination of the seed, the net

weight of seed, and date of shipment. No seed shall be sown until the Contractor has submitted these certificates.

D. Planting Schedule

Indicating anticipated planting dates for each type of seed/sod.

E. Maintenance Manual

1. The Contractor shall submit a written manual prepared for the Owner that outlines a schedule for procedures to be established by Owner for maintenance of lawns during the calendar year for seeded and/or sodded lawns. This maintenance schedule should include timing and methods for mowing, watering, aeration, fertilization, liming, and other lawn maintenance operations.

F. Submittal Schedule

1. Before installation:
  - a. Manufacturer's product data for seed and sod.
  - b. Soil test reports.
  - c. Seed certification.
  - d. Hydroseed mix.
2. After installation and before acceptance:
  - a. Maintenance Manual.

1.4 QUALITY ASSURANCE

- A. All work shall be performed by personnel experienced in lawn installation under the full time supervision of a qualified foreman.
- B. Work shall be coordinated with all other trades on site.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver material to the site in original unopened packages, showing weight, manufacturer's name, and guaranteed analysis.
- B. Store materials in a manner that their effectiveness and usability will not be diminished or destroyed. Materials shall be uniform in composition, dry, unfrozen, and free flowing. Any material which has become caked or otherwise damaged or which does not meet specified requirements will be rejected.

## 1.6 INSPECTION FOR ACCEPTANCE

### A. Conditions of Acceptance

1. Acceptance shall be given for the entire portion of the lawn areas. No partial acceptance will be given.
2. Lawns shall exhibit a uniform, thick, well-developed stand of grass. Lawn areas shall have not bare spots in excess of four inches in diameter and bare spots shall comprise no more than 2% of the total area of the lawn.
3. Lawn areas shall not exhibit signs of damage from erosion, washouts, gullies, or other causes.
4. Pavement surfaces and site improvements adjacent to lawn areas shall be clean and shall be free of spills or overspray from placing or handling of topsoil and seeding operations.

### B. Inspection and Acceptance

1. Upon written request of the Contractor, the Engineer/ Landscape Architect will inspect all lawn areas to determine completion of work. This request must be submitted at least five days prior to the anticipated inspection date.
2. If the lawn areas are not acceptable, the Engineer/ Landscape Architect will indicate corrective measures to be taken, and shall extend the maintenance period as necessary for the completion of the work. The Contractor shall request a second inspection of the lawns after corrective measures have been accomplished. This process shall be repeated until the total lawn area being inspected is acceptable.
3. When the lawn areas are acceptable, a meeting of the Contractor and Owner's Representative will be arranged to accept the lawn work. A final inspection will be a part of this meeting. At this meeting, the Contractor shall be furnished with a written acceptance of the lawn section being approved. The Contractor shall turn over maintenance of the lawn areas to the Owner after the acceptance of the lawn in writing.
4. Following the acceptance of lawns, the Contractor shall provide the Owner with access to all lawn areas as required for the Owner's maintenance work.

### C. Site Cleanup

1. The Contractor shall leave the site in a clean and neat condition. Final acceptance will not be granted until this condition is met.

## PART 2 - PRODUCTS

### 2.1 TOPSOIL

- #### A. Topsoil shall conform to the requirements specified in Section 329115 SOIL PREPARATION.

## 2.2 SOIL CONDITIONING MATERIALS

- A. Apply conditioning materials in accordance with the recommendations of soil testing laboratory as noted in report.
- B. Limestone, Sulfur, Superphosphate and Sand –refer to Specification Section 329115 Soil Preparation.
- C. Fertilizer: Fertilizer shall conform to state and federal fertilizer laws. The fertilizer shall be uniform in composition, dry and free flowing, and shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer which becomes caked or otherwise damaged, making it unsuitable for use, will not be accepted.
  - 1. At least 50% by weight of the nitrogen contents of the fertilizer shall be derived from organic sources. A minimum of 35% of the nitrogen shall be water insoluble.
  - 2. Fertilizer shall contain not less than percentage of weight of ingredients as recommended by in soil test report.
- D. Compost is to be well-composted, stable, and weed-free organic matter, pH range of 5.5 to 7; moisture content 35 to 55 percent by weight; 100 percent passing through ½-inch sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
  - a. Organic matter content: 50 to 60 percent of dry weight.
  - b. Feedstock: Agricultural, food, or industrial residuals; biosolids; yard trimmings; or source-separated or compostable mixed solid waste.

## 2.3 WATER

- A. Water shall be furnished by the Contractor, suitable for irrigation, and free from ingredients harmful to plant life. Hoses and other watering equipment required for the work shall be furnished by the Contractor.

## 2.4 SEED

- A. Certified seed will be used for all permanent seeding whenever possible. Certified seed is inspected by the Virginia Crop Improvement Association or the certifying agency in other states. The seed must meet published state standards and bear an official “Certified Seed” label in accordance with VAESCH Standard and Specification 3.32 “Permanent Seeding” Appendix 3.32-a.
- B. Seed Mix:
  - Rockingham Sun and Shade Lawn Mixture**
  - % Seed Variety
  - 38.3 Home Run Perennial Ryegrass – Turf Type
  - 19.4 Creeping Red Fescue
  - 14.7 Kentucky Bluegrass

14.7 Cardinal Creeping Red Fescue  
9.7 Navigator Creeping Red Fescue  
3.2 Annual Rye Seed – VNS

- C. Seeding Rate:  
New Lawn – 4 lbs per 1,000 SF  
Overseeding – 2 lbs per 1,000 SF (only as directed by Engineer/Project Manager)  
Lime and Fertilizer shall be applied per VDOT Specification 603  
Fertilizer – 300 lbs per Acre  
Lime – 2 tons per Acre

The seeded areas shall be maintained by the Contractor until project close-out. Maintenance shall consist of providing protection against traffic, re-seeding, weeding, re-fertilizing, watering and mowing as necessary to produce a uniform and vigorous stand of grass. At the beginning of the next planting season after that in which permanent crop is sown, the seeded areas will be inspected. Any section not showing vigorous growth at that time shall be promptly re-seeded by the Contractor at his own expense. One (1%) percent of retainage will be held, after the final completion date, until all seeded areas have been inspected and approved by the City. The work under this area will be accepted only after a uniform stand of grass has been established, regardless of final completion date. Grass establishment is the Contractor's responsibility. Therefore, supplemental seeding and mulching will not be paid for.

- D. When using some varieties of turfgrasses, the National Turfgrass Evaluation (NTEP) recommended turfgrass species may be used to substitute currently available and better performing seed based on results from regional test site closest to the project site. The number of varieties and proportions must match the seed specification mix specified. Provide documentation of NTEP rating on proposed substitution as compared to seed specified. Consumer protection programs have been devised to identify quality of seed of the varieties recommended by the Virginia Cooperative Extension Service. These will bear a label indicating that they are approved by the Association.

## 2.5 SOD

- A. Sod used shall be state certified and JMU Standard. Certified turfgrass sod is grown from certified seed inspected and certified by the Virginia Crop Improvement Association (VCIA) or the certifying agency in other states. This ensures genetic purity, high quality, freedom from noxious weeds and excessive insect or disease problems. The sod must meet published state standards and bear an official blue "Certified Turf" label on the bill of lading.
- B. Sod shall be machine cut at a uniform thickness of 3/4 inch (plus or minus 1/4 inch) at the time of cutting. This thickness shall exclude shoot growth and thatch.

- C. Pieces of sod shall be cut to the supplier's standard width and length, with a maximum allowable deviation in any dimension of 5%. Torn or uneven pads will not be accepted.
- D. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended from a firm grasp on one end of the section.
- E. Sod shall not be cut or laid in excessively wet or dry weather.
- F. Sod shall be harvested, delivered, and installed within a period of 36 hours.

## 2.6 MULCH

- A. Organic Mulch
  - 1. Organic mulch may be used in any area where mulch is required, subject to the restrictions noted in VAESCH Standard and Specification 3.35 "Mulching" Table 3.35-A.
  - 2. Select mulch materials based on site requirements, availability of materials, and availability of labor and equipment. Table 3.35-A lists the most commonly used organic mulches. Other materials, such as peanut hulls and cotton burs, may be used with permission of the local plan-approving authority.
  - 3. Straw mulch shall be stalks from oats, wheat rye, barley or rice that are free from noxious weeds, chemicals, mold or other objectionable materials with a nonasphaltic mulch tackifier. Straw shall be air-dry condition suitable for placing. Straw supplied for mechanical application shall be chopped.

## 2.7 HYDROSEED MIX

- A. The Contractor shall submit a certified statement as to number of lbs. of fertilizer, amounts and types of grass seed, and processed fiber, per 100 gallons of water.
  - 1. Mulch for hydroseeding shall be supplied for use with hydraulic application of grass seed and fertilizer. It shall consist of Futerra F4 Netless by Profile Products LLC or approved equal.
  - 2. Non-asphaltic tackifier: colloidal tackifier recommended by fiber-mulch manufacturer for slurry application; nontoxic and free of plant growth of germination inhibitors.

## PART 3 – EXECUTION

### 3.1 SEED AND SOD BED PREPARATION

- A. Coordinate planting with placement of topsoil, the installation of the irrigation system and with other contractors as the landscape contractor is required to install

and maintain his finished work at his expense. When conditions detrimental to lawn establishment, growth and maintenance are encountered, such as rubble fill, adverse drainage conditions or obstructions, notify the owner's representative before beginning work.

- B. Topsoil is to be loose, in friable condition. If topsoil has become crusty, hardened or eroded since being spread, it shall be a part of this work to restore the soil to the loose condition described above. Add soil amendments as recommended in soil test report and thoroughly mix into the upper 4" of topsoil as noted in 329115 SOIL PREPARATION. Remove any rocks or other debris which may surface and work all areas to a smooth even surface free from irregularities, ridges, or depressions. Prepared areas shall meet required finish grade elevations and shall drain adequately. Repair washed and eroded portions. Moisten prepared areas if soil is dry. Water thoroughly, then allow the surface moisture to evaporate. Do not create muddy conditions.
- C. Seed and sod operations shall not be performed when the ground is frozen or when soil or weather conditions would prevent proper soil preparation and subsequent operations. Do not seed when wind velocity exceeds 5 miles per hour. Sow seed with spreader or seeding machine. Distribute seed evenly over entire area by sowing equal quantity in two directions at right angles to each other. Rake seed lightly into top 1/4" of soil, firm entire area with a roller not exceeding 90 lbs. per foot or roller width, and water with a fine spray. Protect newly seeded areas by spreading mulch to a uniform and continuous depth of 1-1/2" loose measurement (70-90 lbs/1000 SF).
- D. When hydroseeding is performed, nozzles or sprays shall not be directed toward the ground in a manner that will cause erosion or runoff. The Contractor shall notify the Engineer/ Landscape Architect at least 48 hours prior to beginning seed operations.
- E. Contractor shall comply with the following VAESCH Standards and Specifications. Where the specifications for this project are more stringent they will supersede the VAESCH Standards and Specifications:
  - 1. Standard and Specification 3.29 "Surface Roughening"
  - 2. Standard and Specification 3.30 "Topsoiling"
  - 3. Standard and Specification 3.32 "Permanent Seeding"
  - 4. Standard and Specification 3.33 "Sodding"

### 3.2 HYDROSEED BED PREPARATION

- A. Prepare seed bed for hydroseeding the same as for seeding and sodding, but do not incorporate fertilizer into the top 3 inches of topsoil.
- B. Hydroseeding shall be applied with a spray machine designed for this purpose and approved by the Engineer.
- C. Install mulch per manufacturer's recommendations using manufacturer's biodegradable staples.

- D. Mix specified seed, starter fertilizer, and fiber mulch in water using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.
- E. Apply slurry uniformly to all areas to be seeded in a two-step process. Apply first slurry coat at a rate so that mulch component is deposited at not less than 500 lb/Acre dry weight, and seed component is deposited not less than the specified seed-sowing rate. Apply slurry cover coat of fiber mulch at the rate recommended by the manufacturer for the steepest area of slope.

### 3.3 SEEDING

- A. Contractor shall comply with VAESCH Standard and Specification 3.32 “Permanent Seeding.”

### 3.4 SODDING

- A. Contractor shall comply with VAESCH Standard and Specification 3.33 “Sodding.”

### 3.5 LAWN RENOVATION

- A. Renovate existing lawn where disturbed or damaged.
- B. Renovate existing lawn damaged by Contractor's operations, such as storage of materials or equipment and movement of vehicles.
- C. Renovate Lawn where settlement or washouts occur or where minor regrading is required.
- D. Remove sod and vegetation from diseased or unsatisfactory lawn areas; do not bury in soil.
- E. Remove topsoil containing foreign materials resulting from Contractor's operations, including oil drippings, fuel spills, stone, gravel, and other construction materials, and replace with new topsoil.
- F. Mow, dethatch, core aerate, and rake existing lawn.
- G. Remove weeds before installing seed. Where weeds are extensive, apply selective herbicides as required. Do not use pre-emergence herbicides.
- H. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and turf, and legally dispose of them off Owner's property.
- I. Till stripped, bare, and compacted areas thoroughly to a soil depth of 6 inches.
- J. Apply soil amendments and initial fertilizers required for establishing new lawns and mix thoroughly into top four inches of existing soil. Provide new planting soil to fill low spots and meet finish grades.
- K. Apply seed as required for new lawns.

- L. Water newly planted areas and keep moist until new lawn is established.

### 3.6 MAINTENANCE AND PROTECTION

- A. Maintenance of seeded and sodded areas shall begin immediately after installation. Maintenance includes watering, weeding, mowing and edging, reseeding, replacement of dead sod, disease and insect pest control, repair of all erosion damage, and any other procedures consistent with good horticultural practice, required to ensure normal, vigorous, and healthy growth. Maintenance shall continue until final acceptance of the work.
  - 1. Landscape contractor is responsible to determine water application rates.
  - 2. Stands in lawn areas shall be mowed whenever the average height reaches 1-1/2" for warm season grasses and 2-2-1/2" for cool season grasses.
- B. Maintenance shall also include all temporary protection fences, barriers, signs, and all other work incidental to proper maintenance. Maintain barricades throughout maintenance period and remove after lawn is established.
- C. Scattered bare spots will be allowed up to a maximum of 2% of any lawn area, provided none are larger than 72 square inches. After the grass has sprouted, all bare areas shall be re-seeded or re-sodded repeatedly until all areas are covered with a satisfactory growth of grass. Do not remove more than one-third of the grass blade. All lawns shall receive at least three mowings before acceptance.
- D. The seeded and sodded areas shall be maintained in a continuous moist condition, satisfactory for good germination and growth of grass until acceptance.
- E. Six weeks after the seeded areas have become established, fertilizer shall be applied over the entire area. Sod shall be fertilized at the time of the second mowing.
- F. Remove erosion-control measures after grass establishment period.
- G. Clean-up and protection
  - 1. Keep pavements and work area in a clean and orderly condition on a daily basis.
  - 2. Protect seeded areas and materials from damage due to operations by other contractors, trades, and trespassers. Maintain protection during installation and until final acceptance. Treat, repair, or replace damaged seeded areas as directed.

### 3.7 WARRANTY

- A. The establishment period for lawn areas shall be from the time of installation until the final acceptance of the established lawn in writing. An established stand shall be uniform in coverage and of the specified mixture. No individual lawn area shall have bare spots in excess of three inches in diameter and bare spot shall comprise no more than two percent of the total lawn area. All replacements shall be subject to

the warranty requirements as the original stock. Any damage done during replacement operations shall be the responsibility of the landscape contractor.

### 3.8 COMPLETION AND ACCEPTANCE

- A. The completion of the contract will be accepted and notice of completion recorded only when the entire contract is completed to the satisfaction of the owner's representative.
- B. Within then (10) days fo the general contractor's notification that the installation is complete, the owner's representative will inspecct the installation and if, final acceptance is not given, will prepare a "punch list".
- C. Final acceptance will be given by the owner's representative upon satisfactory completion of all work including "punch list" items.

END OF SECTION

## **1005 – STREET CENTERLINE MONUMENTS**

### **PART 1 – GENERAL**

#### **1.1 DESCRIPTION**

A. The Contractor shall install the City's Standard Street Center Line Monuments in accordance with City Drawing Number 6.5.2. The City will furnish the street centerline monuments to the Contractor which include a three-piece adjustable box and the City of Harrisonburg aluminum disk. The Contractor will furnish three pieces of 5/8" rebar, a piece of 4" PVC pipe and concrete for the street centerline monument body.

### **PART 2 – MEASUREMENT AND PAYMENT**

Measurement and payment for City Standard Street Center Line Monuments will be per each, complete-in-place. Payment shall include the cost of excavation, and furnishing and installing all materials (except as noted above).

The City Surveyor shall provide all stake-out for the street centerline monuments.

**END OF SECTION**

# 1006 – STORM WATER TREATMENT DEVICE

## PART 1 - GENERAL

### 1.1 DESCRIPTION

- A. The Contractor shall furnish all labor, equipment and materials necessary to install the storm water treatment device(s) (SWTD) and appurtenances specified in the Drawings and these specifications. All water quality measures and stormwater treatment devices shall be in accordance with the Virginia Stormwater Management Handbook.

### 1.2 QUALITY ASSURANCES

#### A. Inspection

- 1. All components shall be subject to inspection by the Engineer at the place of manufacture and/or installation. All components are subject to be rejected or identified for repair if the quality of materials and manufacturing do not comply with the requirements of this specification. Components which have been identified as defective may be subject for repair. Final acceptance of the component is contingent upon the discretion of the Engineer.

#### B. Warranty

- 1. The manufacturer shall guarantee the SWTD components against all manufacturer originated defects in materials or workmanship for a period of twelve (12) months from the date the components are delivered to the owner for installation. The manufacturer shall be notified of repair/replacement issues in writing within the referenced warranty period. The manufacturer shall, upon its determination of repair, correct or replace any manufacturer originated defects identified by written notice within the referenced warranty period. The use of SWTD components shall be limited to the application for which it was specifically designed.

#### C. Manufacturer's Performance Certificate

- 1. The SWTD manufacturer shall submit to the Engineer of Record a "Manufacturer's Performance Certification" certifying that each SWTD is capable of achieving the specified removal efficiencies as listed in these specifications. The certification shall be supported by independent third-party research.

### 1.3 SUBMITTALS

#### A. Shop Drawings

- 1. The contractor shall prepare and submit 4 sets of shop drawings in accordance with the contract documents. The shop drawings shall detail horizontal and vertical dimensioning, reinforcement and joint type and locations.

## PART 2 - PRODUCTS

### 2.1 MATERIALS AND DESIGN

A. Precast Concrete Components shall conform to applicable sections of ASTM C 478, ASTM C 857 and ASTM C 858 and the following:

1. Concrete shall achieve a minimum 28-day compressive strength of 4,000 pounds per square-inch (psi);
2. Unless otherwise noted, the precast concrete sections shall be designed to withstand lateral earth and AASHTO H-20 traffic loads;
3. Cement shall be Type III Portland Cement conforming to ASTM C 150;
4. Aggregates shall conform to ASTM C 33;
5. Reinforcing steel shall be deformed billet-steel bars, welded steel wire or deformed welded steel wire conforming to ASTM A 615, A 185 or A 497, respectively;
6. Joints shall be sealed with preformed joint sealing compound conforming to ASTM C 990 and
7. Shipping of components shall not be initiated until a minimum compressive strength of 4,000 psi is attained or five (5) calendar days after fabrication has expired, whichever occurs first.

B. Internal Components and Appurtenances shall conform to the following:

1. Screen and support structure shall be manufactured of Type 316 and 316L stainless steel conforming to ASTM F 1267-01;
2. Hardware shall be manufactured of Type 316 stainless steel conforming to ASTM A 320;
3. Fiberglass components shall conform to the National Bureau of Standards PS-15 and coated with an isophalic polyester gelcoat and
4. Access system(s) conform to the following:
  - a. Manhole castings shall be designed to withstand AASHTO H-20 loadings and manufactured of cast-iron conforming to ASTM A 48 Class 30.
  - b. Hatch systems shall be designed to withstand AASHTO H-20 loadings. Hatch systems not subject to direct traffic shall be manufactured of Grade 5086 aluminum. Hatch systems subject to direct traffic loads shall be manufactured of steel conforming to ASTM A 36-93a, supplied with a hot-dip galvanized finish conforming to ASTM A 123 and access doors bolted to the frame.

### 2.2 PERFORMANCE

A. Removal Efficiencies

1. The SWTD shall be capable of achieving an 80 percent average annual reduction in the total suspended solid load.
2. The SWTD shall be capable of capturing and retaining 100 percent of pollutants greater than or equal to 2.4 millimeters (mm) regardless of the pollutant's specific gravity (i.e.: floatable and neutrally buoyant materials) for

flows up to the device's rated-treatment capacity. The SWTD shall be designed to retain all previously captured pollutants addressed by this subsection under all flow conditions.

3. The SWTD shall be capable of capturing and retaining total petroleum hydrocarbons. The SWTD shall be capable of achieving a removal efficiency of 92 and 78 percent when the device is operating at 25 and 50 percent of its rated-treatment capacity. These removal efficiencies shall be based on independent third-party research for influent oil concentrations representative of storm water runoff ( $20 \pm 5$  mg/L). The SWTD shall be greater than 99 percent effective in controlling dry-weather accidental oil spills.
4. The SWTD shall be capable of utilizing sorbent media to enhance removal and retention of petroleum based pollutants.

B. Hydraulic Capacity

1. The SWTD shall provide a rated-treatment capacity, which is consistent with governing water treatment regulations. At its rated-treatment capacity, the device shall be capable of achieving greater than 65 percent removal of particles typically found in roadside sediments. This removal efficiency shall be supported by independent third-party research utilizing samples consistent with the NURP gradation or finer.
2. The SWTD shall maintain the peak conveyance capacity of the drainage network as defined by the Engineer.

C. Storage Capacity

1. The SWTD shall be designed with a sump chamber for the storage of captured sediments and other negatively buoyant pollutants in between maintenance cycles. The minimum storage capacity provided by the sump chamber shall be in accordance with the volume listed in Table 1. The boundaries of the sump chamber shall be limited to that which do not degrade the SWTD's treatment efficiency as captured pollutants accumulate. The sump chamber shall be separate from the treatment processing portion(s) of the SWTD to minimize the probability of fine particle re-suspension. In order to not restrict the Owner's ability to maintain the SWTD, the minimum dimension providing access from the ground surface to the sump chamber shall be 20 inches in diameter.
2. The SWTD shall be designed to capture and retain Total Petroleum Hydrocarbons generated by wet-weather flow and dry-weather gross spills.

D. Alternate Treatment Technologies and Sizing Criteria

The sizing criteria for treatment systems must conform to the recommended loading rate and 3rd party testing data requirements as mentioned below:

1. CDS Screening Systems – designed for full treatment of the runoff rate at a loading rate not to exceed the critical flow in the inlet, in order to achieve 80% TSS removal efficiency. (80% TSS removal based on a average particles size of 63 micron)

2. Vortex separation systems – designed for full treatment of the runoff rate at a loading rate not to exceeding 24 gpm/ft<sup>2</sup>, in order to achieve 80% TSS removal efficiency. The hydraulic capacity should not exceed a loading rate of 100 gpm/ft<sup>2</sup> to prevent scouring of previously captured particles. 80% TSS removal based on a average particles size of 63 micron)
3. Gravity systems – designed for full treatment of the runoff rate at a loading rate not to exceeding 10 gpm/ft<sup>2</sup>, in order to achieve 80% TSS removal efficiency. The gravity units will not exceed laminar flow condition parameters in the treatment unit but will provide a bypass system to prevent turbulence from accruing in the system. (See “Stokes Law” for gravity settling requirements of particles. 80% TSS removal based on a average particles size of 63 micron)
4. Additionally, the performance of the unit must be evaluated by a third party and verified in a program that allows a more-or-less direct comparison to other technologies. Performance should be third party verified, and removal efficiencies across the spectrum of particle sizes reported, at a range of hydraulic loading rates varying over a range of at least 25 to 125% of the manufacturer’s advertised ‘water treatment’ loading rate.

### 2.3 MANUFACTURER

1. The manufacturer of the SWTD shall be approved by DEQ on the BMP Clearinghouse website. The basis of design SWTD(s) is a CDS® manufactured by:  
CONTECH Stormwater Solutions  
9025 Centre Pointe Dr., Suite 400  
West Chester, OH 45069  
(866) 551-8325 (toll free)

## PART 3 – EXECUTION

### 3.1 HANDLING AND STORAGE

1. The contractor shall exercise care in the storage and handling of the SWTD components prior to and during installation. Any repair or replacement costs associated with events occurring after delivery is accepted and unloading has commenced shall be born by the contractor.

### 3.2 INSTALLATION

2. The SWTD shall be installed in accordance with the manufacturer’s recommendations and related sections of the contract documents. The manufacturer shall provide the contractor installation instructions and offer on-site guidance during the important stages of the installation as identified by the manufacturer at no additional expense. A minimum of 72 hours notice shall be provided to the manufacturer prior to their performance of the services included under this subsection.
3. The contractor shall fill all voids associated with lifting provisions provided by the manufacturer. These voids shall be filled with non-shrinking grout

providing a finished surface consistent with adjacent surfaces. The contractor shall trim all protruding lifting provisions flush with the adjacent concrete surface in a manner which leaves no sharp points or edges.

END OF SECTION

## 1007 – BLUESTONE MASONRY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Provisions of the Contract and of the Contract Documents apply to this Section.

#### 1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
  - 1. For limestone (Bluestone) proposed for use on Project, include test data indicating compliance with physical properties specified or required by referenced ASTM standards.
- B. Samples for Initial Selection: For colored mortar and other items involving color selection.
- C. Samples for Verification:
  - 1. For each stone type indicated. Include at least five samples in each set for each type of stone, exhibiting extremes of the full range of color and other visual characteristics expected in completed Work. Samples will establish the standard by which stone provided will be judged.
  - 2. For each color of mortar required. Label Samples to indicate types and amounts of pigments used.
- D. List of Materials Used in Constructing Mockups: List generic product names together with manufacturers, manufacturers' product names, sources of supply, and other information as required to identify materials used. Include mix proportions for mortar and source of aggregates.
  - 1. Submittal is for information only. Neither receipt of list nor approval of mockups constitutes approval of deviations from the Contract Documents unless such deviations are specifically brought to the attention of Owner and approved in writing.
- E. Qualification Data: For qualified Installer.
- F. LEED Submittals: Refer to Division 1 Section "Sustainable Design Requirements."

#### 1.3 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs experienced stonemasons and stone fitters.
- B. Source Limitations for Stone: Obtain each variety of stone, from one quarry, whether specified in this Section or in another Section of the Specifications, with resources to provide materials of consistent quality in appearance and physical properties.
- C. Source Limitations for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from single manufacturer for each cementitious component and from single source or producer for each aggregate.

- D. Mockups: Build mockups to demonstrate aesthetic effects and set quality standards for materials and execution.
  - 1. Build mockup of typical wall area as shown on Drawings.
  - 2. Protect accepted mockups from the elements with weather-resistant membrane.
  - 3. Approval of mockups is for color, texture, and blending of stone; relationship of mortar and sealant colors to stone colors; tooling of joints; and aesthetic qualities of workmanship.
    - a. Approval of mockups is also for other material and construction qualities Owner specifically approves in writing.
    - b. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Owner specifically approves such deviations in writing.
  - 4. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- E. Aesthetic Bluestone “model”: The East Side of the JMU Student Success Center shall be the aesthetic standard for sizing, pattern, color, mortar and roping.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- B. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.
- C. In lieu of separate cementitious materials and aggregate, Contractor may deliver pre-blended dry mortar mix in moisture-resistant containers designed for lifting and emptying into dispensing silo.
  - 1. Store pre-blended, dry mortar mix in delivery containers on elevated platforms, under cover, and in a dry location or in a metal dispensing silo with weatherproof cover
- D. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.
- E. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.

#### 1.5 PROJECT CONDITIONS

- A. Protection of Stone Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed stone masonry when construction is not in progress.

1. Extend cover a minimum of 24 inches (600 mm) down both sides and hold cover securely in place.
- B. Stain Prevention: Immediately remove mortar and soil to prevent them from staining the face of stone masonry.
1. Protect base of walls from rain-splashed mud and mortar splatter by coverings spread on the ground and over the wall surface.
  2. Protect sills, ledges, and projections from mortar droppings.
  3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
  4. Turn scaffold boards near the wall on edge at end of each day to prevent rain from splashing mortar and dirt on completed stone masonry.
- C. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace stone masonry damaged by frost or freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.
1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F (4 deg C) and above and will remain so until masonry has dried, but not less than 7 days after completing cleaning.
- D. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.

## 1.6 COORDINATION

- A. Advise installers of other work about specific requirements for placement of reinforcement, veneer anchors, flashing, and similar items to be built into stone masonry.

## PART 2 - PRODUCTS

### 2.1 STONE "BLUESTONE"

- A. Limestone: Comply with ASTM C 568.
1. Products: Subject to compliance with requirements, provide the following:
    - a. Pennsylvania Bluestone, matching James Madison University standard.
- B. Match Owner's samples for color, finish, and other stone characteristics relating to aesthetic effects.

### 2.4 MATERIALS

- A. Portland Cement: ASTM C 150, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.
1. Low-Alkali Cement: Not more than 0.60 percent total alkali when tested according to ASTM C 114.

- B. Hydrated Lime: ASTM C 207, Type S.
- C. Portland Cement-Lime Mix: Packaged blend of portland cement complying with ASTM C 150, Type I or III, and hydrated lime complying with ASTM C 207.
  - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Essroc, Italcementi Group; Capitol PCL Blend
    - b. Holcim (US) Inc.; Rainbow Mortamix Custom Color Cement/Lime.
    - c. Lafarge North America; Eaglebond.
    - d. Lehigh Cement Company; Lehigh Custom Color Portland/Lime Cement.
- D. Compatibility: Mortar materials shall be those with a history of successful use with the stone provided. Do not use mortar materials that are known to cause staining or damage to the stone.
- E. Masonry Cement: ASTM C 91.
- F. Colored Cement Product: Packaged blend made from portland cement and lime all complying with specified requirements, and containing no other ingredients.
  - 1. Formulate blend as required to produce color indicated or, if not indicated, as selected from manufacturer's standard colors.
  - 2. Pigments shall not exceed 10 percent of portland cement by weight.
  - 3. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Colored Portland Cement-Lime Mix:
      - 1) Holcim (US) Inc.; Rainbow Mortamix Custom Color Cement/Lime.
      - 2) Lafarge North America; Eaglebond.
      - 3) Lehigh Cement Company; Lehigh Custom Color Portland/Lime Cement.
- G. Aggregate: ASTM C 144 and as follows:
  - 1. For pointing mortar, use aggregate graded with 100 percent passing No. 16 (1.18-mm) sieve.
  - 2. White Aggregates: Natural white sand or ground white stone.
  - 3. Colored Aggregates: Natural-colored sand or ground marble, granite, or other sound stone; of color necessary to produce required mortar color.
    - a. Match Owner's sample.

## 2.5 VENEER ANCHORS

- A. Materials:
  - 1. Stainless-Steel Wire: ASTM A 580/A 580M, Type 304.
  - 2. Stainless-Steel Sheet: ASTM A 240/A 240M, Type 304.
- B. Size: Sufficient to extend at least halfway, but not less than 1-1/2 inches (38 mm), through stone masonry and with at least 5/8-inch (16-mm) cover on outside face.
- C. Adjustable, Screw-Attached Veneer Anchors: Units consisting of a wire tie section and a metal anchor section that allow vertical adjustment but resist tension and compression forces

perpendicular to plane of wall, for attachment over sheathing to steel studs, concrete, or concrete masonry, and as follows:

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
  - a. Hohmann & Barnard, Inc.; TIE-HVR-195VB.
  - b. Heckmann Building Products Inc.; Pos-I-Tie.
  - c. Wire-Bond; RJ-711 or HCL-711 or Sure Tie.
2. Structural Performance Characteristics: Capable of withstanding a 100-lbf (445-N) load in both tension and compression without deforming or developing play in excess of 0.05 inch (1.3 mm).
3. Anchor Section: Sheet metal plate, 2-5/8 inches wide by length to accommodate cavity insulation, with screw holes for anchoring and a slot for inserting anchor rod. Size anchor rod to suit load, but not less than 5/16-inch diameter.
4. Alternate Anchor Section: Zinc-alloy barrel section with flanged head with eye and corrosion-resistant, self-drilling screw. Eye designed to receive wire tie and to serve as head for drilling fastener into framing. Barrel length to suit sheathing thickness, allowing screw to seat directly against framing with flanged head covering hole in sheathing.
5. Fabricate sheet metal anchor sections and other sheet metal parts from 0.10-inch- (2.5-mm-) thick, stainless-steel sheet.
6. Wire Ties: Triangular-, rectangular-, or T-shaped wire ties fabricated from 0.188-inch- (4.8-mm-) diameter, stainless-steel wire.
7. Dovetail Slots in Concrete: Specified in Division 3 Section "Cast-in-Place Concrete".
  - a. Dovetail Anchors for Concrete: Anchors with dovetail tabs for inserting into dovetail slots in concrete and attached to tie section; formed from 0.097-inch-thick, stainless steel sheet. Space dovetail anchors at 16 inches o.c. unless otherwise indicated.
    - 1) Tie Section: Triangular-shaped wire tie, sized to extend within 1 inch of stone face, made from 0.1875-inch- diameter, stainless steel wire.

## 2.6 STONE TRIM ANCHORS

- A. Stone Trim Anchors: Units fabricated with tabs or dowels designed to engage kerfs or holes in stone trim units and holes for fasteners or postinstalled anchor bolts for fastening to substrates or framing as indicated.
  1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Halfen Anchoring Systems; Meadow Burke.
    - b. Heckmann Building Products Inc.
    - c. Hohmann & Barnard, Inc.
- B. Materials: Fabricate anchors from stainless steel, ASTM A 240/A 240M, Type 304. Fabricate dowels from stainless steel, ASTM A 276, Type 304.

- C. Fasteners for Stone Trim Anchors: Annealed stainless-steel bolts, nuts, and washers; ASTM F 593 (ASTM F 738M) for bolts and ASTM F 594 (ASTM F 836M) for nuts, Alloy Group 1 (A1).
- D. Postinstalled Anchor Bolts for Fastening Stone Trim Anchors: Chemical anchors torque-controlled expansion anchors or undercut anchors made from stainless-steel components complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2 (ASTM F 738M and ASTM F 836M, Alloy Group A1 or A4) for bolts and nuts; ASTM A 666 or ASTM A 276, Type 304 or 316, for anchors.

## 2.7 EMBEDDED FLASHING MATERIALS

- A. Metal Flashing: Provide metal flashing, where flashing is exposed or partly exposed and where indicated, complying with Division 07 Section "Sheet Metal Flashing and Trim" and as follows:
  1. Stainless Steel: ASTM A 240/A 240M, Type 304, 0.016 inch (0.4 mm) thick.
  2. Fabricate continuous flashings in sections 96 inches (2400 mm) long minimum, but not exceeding 12 feet (3.6 m). Provide splice plates at joints of formed, smooth metal flashing.
  3. Fabricate through-wall metal flashing embedded in masonry from stainless steel with ribs at 3-inch (75-mm) intervals along length of flashing to provide an integral mortar bond.
    - a. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
      - 1) Cheney Flashing Company; Cheney Flashing (Dovetail) or Cheney 3-Way Flashing (Sawtooth).
      - 2) Keystone Flashing Company, Inc.; Keystone 3-Way Interlocking Thruwall Flashing.
  4. Fabricate through-wall flashing with snaplock receiver on exterior face where indicated to receive counterflashing.
  5. Fabricate through-wall flashing with drip edge where indicated. Fabricate by extending flashing 1/2 inch (13 mm) out from wall, with outer edge bent down 30 degrees and hemmed.
  6. Fabricate through-wall flashing with sealant stop where indicated. Fabricate by bending metal back on itself 3/4 inch (19 mm) at exterior face of wall and down into joint 3/8 inch (10 mm) to form a stop for retaining sealant backer rod.
  7. Fabricate metal drip edges and sealant stops for ribbed metal flashing from plain metal flashing of same metal as ribbed flashing and extending at least 3 inches (75 mm) into wall with hemmed inner edge to receive ribbed flashing and form a hooked seam. Form hem on upper surface of metal so that completed seam will shed water.
  8. Metal Drip Edges: Fabricate from stainless steel. Extend at least 3 inches (75 mm) into wall and 1/2 inch (13 mm) out from wall, with outer edge bent down 30 degrees and hemmed.
  9. Metal Flashing Terminations: Fabricate from stainless steel. Extend at least 3 inches (75 mm) into wall and out to exterior face of wall. At exterior face of wall, bend metal back on itself for 3/4 inch (19 mm) and down into joint 3/8 inch (10 mm) to form a stop for retaining sealant backer rod.
  10. Metal Expansion-Joint Strips: Fabricate from stainless steel to shapes indicated.

B. Flexible Flashing: For flashing not exposed to the exterior, use one of the following unless otherwise indicated:

1. Copper-Laminated Flashing: 5-oz./sq. ft. (1.5-kg/sq. m) copper sheet bonded between 2 layers of glass-fiber cloth. Provide non-asphalt lamination product. Use only where flashing is fully concealed in masonry and in conjunction with metal drip edge.
  - a. Use polyether based moisture-curing sealer products recommended by flashing manufacturer. Traditional mastic is not acceptable.
  - b. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - 1) Advanced Building Products Inc.; Copper Sealtite 2000.
    - 2) York Manufacturing, Inc.; Multi-Flash 500. [www.yorkmfg.com](http://www.yorkmfg.com)
    - 3) STS Coatings; "Gorilla Flash CF-500" [www.stscoatings.com](http://www.stscoatings.com)
    - 4) Hohmann & Barnard, Inc.; "Copper-Tuff."

C. Application: Unless otherwise indicated, use the following:

1. Where flashing is indicated to receive counterflashing, use metal flashing.
2. Where flashing is indicated to be turned down at or beyond wall face, use metal flashing.
3. Where flashing is partly exposed and is indicated to terminate at wall face, use metal flashing with a drip edge and with a sealant stop.

D. Solder and Sealants for Sheet Metal Flashing

1. Solder for Stainless Steel: ASTM B 32, Grade Sn60, with acid flux of type recommended by stainless-steel sheet manufacturer.
2. Solder for Copper: ASTM B 32, Grade Sn50, 50 percent tin and 50 percent lead.
3. Elastomeric Sealant: ASTM C 920, chemically curing silicone sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.

E. Adhesives, Primers, and Seam Tapes for Flexible Flashings: Flashing manufacturer's standard products or products recommended by flashing manufacturer for bonding flashing sheets to each other and to substrates.

## 2.8 MISCELLANEOUS MASONRY ACCESSORIES

A. Compressible Filler: Premolded filler strips complying with ASTM D 1056, Grade 2A1; Compressible up to 35 percent; of width and thickness indicated; formulated from neoprene.

B. Weep Hole/Vent Products: Use one of the following unless otherwise indicated:

1. Round Plastic Tubing: Medium-density polyethylene, 3/8-inch (10-mm) OD by Thickness of stone masonry.
2. Mesh Weep Holes/Vents: Free-draining mesh; made from polyethylene strands, full width of head joint and 2 inches (50 mm) high by thickness of stone masonry; in color selected from manufacturer's standard.
  - a. Products: Subject to compliance with requirements, available products that may

be incorporated into the Work include, but are not limited to, the following:

- 1) CavClear/Archovations, Inc.; CavClear Weep Vents.
  - 2) Mortar Net USA, Ltd.; Mortar Net Weep Vents.
3. Bed-Joint Weep System: Corrugated plastic drainage system incorporating continuous drainage strip within cavity portion of wall with integral weep hole extensions at 9-1/2 inches on center located above flashing in the bed joint of the veneer masonry. Provide Masonry Technology Incorporated "Cavity Weep" CV 5010, Heckmann Building Products "Core/Cavity Vent Weep System" #367, or alternate comparable performance bed-joint drainage system acceptable to Owner. Provide for weeps for masonry units over 32 inches long and in applications indicated.
- C. Continuous Cavity Drainage Material: Provide cavity drainage material in strips 16 inches high by 96 inches long by thicknesses to meet manufacturer's tolerance requirements in cavity air spaces. Cavity air space is area between back of the stone veneer and the face of the cavity wall insulation. Drainage material shall be a fluid conducting/air venting, nonabsorbent, three-dimensional polymer mesh made from 100 percent recycled plastic and with a geotextile filter cloth material laminated to the front. Provide minimum 1 inch thick material to suit air space depth, verify exact depth of air spaces. Install cavity drainage material full height and width in cavities, refer to Wall Sections. Flame Spread: Class A (ASTM E84).
1. Available Products:
    - a. CavClear Archovations, Inc., "Masonry Mat"
    - b. Advanced Building Products Inc., "Mortairvent CW"
    - c. Keene Building Products, "Cav-Air-Ator",

## 2.9 CAVITY-WALL INSULATION

- A. Refer to Division 7 Sections "Sprayed Polyurethane Foam Air Barrier" and "Thermal Insulation" for cavity insulation.

## 2.10 MASONRY CLEANERS

- A. Limestone Cleaner: Manufacturer's standard-strength cleaner, specifically formulated for limestone, designed for removing mortar and grout stains, efflorescence, and other new construction stains from stone masonry surfaces without discoloring or damaging masonry surfaces; expressly approved for intended use by cleaner manufacturer and stone producer. Provide recommended neutralizing after-rinse.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. Diedrich Technologies, Inc.
    - b. Dominion Restoration Products.
    - c. EaCo Chem, Inc.
    - d. Hydrochemical Techniques, Inc.
    - e. Prosoco, Inc.

## 2.11 MORTAR MIXES

- A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures, unless otherwise indicated.
  - 1. Do not use calcium chloride.
  - 2. Use masonry cement mortar unless otherwise indicated.
  - 3. Add cold-weather admixture (if used) at same rate for all mortar that will be exposed to view, regardless of weather conditions, to ensure that mortar color is consistent.
- B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in the form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.
- C. Mortar for Stone Masonry: Comply with ASTM C 270, Property Specification. Provide the following types of mortar for applications stated unless another type is indicated.
  - 1. Mortar for Setting Stone: Type S.
  - 2. Mortar for Pointing Stone: Type N.
- D. Pigmented Mortar: Use colored cement product or select and proportion pigments with other ingredients to produce color required. Do not add pigments to colored cement products.
  - 1. Pigments shall not exceed 10 percent of Portland cement by weight.
  - 2. Mix to match Owner's sample. (Match James Madison University standard)
- E. Colored-Aggregate Mortar: Produce required mortar color by using colored aggregates and natural color or white cement as necessary to produce required mortar color.
  - 1. Mix to match Owner's sample.

## 2.12 FABRICATION

- A. Fabricate stone to comply with sizes, shapes, and tolerances recommended by applicable stone association or, if none, by stone source, for faces, edges, beds, and backs.
  - 1. For limestone, comply with recommendations in ILI's "Indiana Limestone Handbook."
- B. Select stone to produce pieces of thickness, size, and shape indicated, including details on Drawings. Dress joints (bed and vertical) straight and at right angle to face unless otherwise indicated.
- C. Cut and drill sinkages and holes in stone for anchors and supports.
- D. Carefully inspect stone at quarry or fabrication plant for compliance with requirements for appearance, material, and fabrication. Replace defective units before shipment.
  - 1. Clean sawed backs of stone to remove rust stains and iron particles.
- E. Thickness of Stone: Provide thickness indicated, but not less than the following:
  - 1. Thickness: As indicated on drawings, plus or minus 1/2 inch (13 mm).
- F. Shape stone for type of masonry (pattern) as follows:
  - 1. Sawed-bed, broken-range ashlar with uniform course heights as indicated on Drawings and with random lengths.

- G. Finish exposed faces and edges of stone to comply with requirements indicated for finish and to match approved samples and mockups.
  - 1. Finish: Split face (match existing James Madison University Bluestone)

#### 2.13 GROUT CAVITY

- A. Grout for infill of cavity space behind stone in short wall or concrete wall construction at or near grade/foundation levels shall be Portland cement/sand grout meeting proportion requirements of ASTM C476 for "fine grout".
- B. Grout shall have a minimum 28-day compressive strength of 2,000 psi. Slump shall be suitable for the width and depth of cavity space to be filled and shall be monitored by on-site third-party inspections. Consolidate grout by rodding or vibrating to ensure that the cavity space is completely filled.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine surfaces indicated to receive stone masonry, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.
- B. Examine substrate to verify that dovetail slots, inserts, reinforcement, veneer anchors, flashing, and other items installed in substrates and required for or extending into stone masonry are correctly installed.
- C. Examine wall framing, sheathing, and weather-resistant sheathing paper to verify that stud locations are suitable for spacing of veneer anchors and that installation will result in a weatherproof covering.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Accurately mark stud centerlines on face of weather-resistant sheathing paper before beginning stone installation.
- B. Coat concrete and unit masonry backup with asphalt dampproofing.
- C. Clean dirty or stained stone surfaces by removing soil, stains, and foreign materials before setting. Clean stone by thoroughly scrubbing with fiber brushes and then drenching with clear water. Use only mild cleaning compounds that contain no caustic or harsh materials or abrasives.

#### 3.3 SETTING OF STONE MASONRY, GENERAL

- A. Perform necessary field cutting and trimming as stone is set.
  - 1. Use power saws to cut stone that is fabricated with saw-cut surfaces. Cut lines straight and true, with edges eased slightly to prevent snipping.
  - 2. Use hammer and chisel to split stone that is fabricated with split surfaces. Make edges straight and true, matching similar surfaces that were shop or quarry fabricated.

3. Pitch face at field-split edges as needed to match stones that are not field split.
- B. Sort stone before it is placed in wall to remove stone that does not comply with requirements relating to aesthetic effects, physical properties, or fabrication, or that is otherwise unsuitable for intended use.
  - C. Arrange stones in range ashlar pattern with course heights as indicated, uniform lengths, and uniform joint widths, with offset between vertical joints as indicated.
  - D. Set stone to comply with requirements indicated on Drawings. Install supports, fasteners, and other attachments indicated or necessary to secure stone masonry in place. Set stone accurately in locations indicated with edges and faces aligned according to established relationships and indicated tolerances.
  - E. Maintain uniform joint widths except for variations due to different stone sizes and where minor variations are required to maintain bond alignment if any. Lay walls with joints not less than 1/4 inch (6 mm) at narrowest points or more than 3/8 inch (10 mm) at widest points.
  - F. Provide sealant joints of widths and at locations indicated.
    1. Keep sealant joints free of mortar and other rigid materials.
    2. Sealing joints is specified in Division 07 Section "Joint Sealants."
  - G. Install metal expansion strips in sealant joints at locations indicated. Build flanges of expansion strips into masonry by embedding in mortar between stone masonry and backup wythe. Lap each joint 4 inches (100 mm) in direction of water flow. Seal joints below grade and at junctures with horizontal expansion joints if any.
  - H. Install embedded flashing and weep holes at shelf angles, lintels, ledges, other obstructions to downward flow of water in wall, and where indicated. Coordinate with installation of sprayed polyurethane foam insulation. Install vents at shelf angles, ledges, and other obstructions to upward flow of air in cavities, and where indicated.
    1. At stud-framed walls, extend flashing through stone masonry, up the face of sheathing at least 16 inches (400 mm), and behind weather-resistant sheathing paper.
    2. At multiwythe masonry walls, including cavity walls, extend flashing through stone masonry, turned up a minimum of 16 inches (400 mm), and extend into or through inner wythe to comply with requirements in Division 04 Section "Unit Masonry."
    3. At concrete backing, extend flashing through stone masonry, turned up a minimum of, 16 inches (400 mm), and insert in reglet. Reglets are specified Division 07 Section "Sheet Metal Flashing and Trim."
    4. At lintels and shelf angles, extend flashing full length of angles but not less than 6 inches (150 mm) into masonry at each end.
    5. At sills, extend flashing not less than 4 inches (100 mm) at ends.
    6. At ends of head and sill flashing turn up not less than 2 inches (50 mm) to form end dams.
    7. Interlock end joints of ribbed sheet metal flashing by overlapping ribs not less than 1-1/2 inches (38 mm) or as recommended by flashing manufacturer, and seal lap with elastomeric sealant complying with requirements in Division 07 Section "Joint Sealants" for application indicated.

8. Install metal drip edges and sealant stops with ribbed sheet metal flashing by interlocking hemmed edges to form hooked seam. Seal seam with elastomeric sealant complying with requirements in Division 07 Section "Joint Sealants" for application indicated.
  9. Extend sheet metal flashing 1/2 inch (13 mm) beyond face of masonry at exterior and turn flashing down to form a drip.
  10. Install metal drip edges beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch (13 mm) back from outside face of wall and adhere flexible flashing to top of metal drip edge.
  11. Install metal flashing termination beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch (13 mm) back from outside face of wall and adhere flexible flashing to top of metal flashing termination.
  12. Cut flexible flashing flush with face of wall after masonry wall construction is completed.
- I. Coat limestone with cementitious dampproofing as follows:
1. Stone at Grade: Beds, joints, and back surfaces to at least 12 inches (300 mm) above finish-grade elevations.
  2. Stone Extending below Grade: Beds, joints, back surfaces, and face surfaces below grade.
  3. Allow cementitious dampproofing formulations to cure before setting dampproofed stone. Do not damage or remove dampproofing in the course of handling and setting stone.
- J. Place weep holes and vents in joints where moisture may accumulate, including at base of cavity walls, above shelf angles, and at flashing.
1. Use round plastic tubing mesh weep holes/vents to form weep holes.
  2. Use wicking material to form weep holes above flashing in stone sills. Turn wicking down at lip of sill to be as inconspicuous as possible.
  3. Space weep holes 24 inches (600 mm) o.c.
  4. Space weep holes formed from plastic tubing 16 inches (400 mm) o.c.
  5. Place cavity drainage material in cavities to comply with configuration requirements for cavity drainage material in "Miscellaneous Masonry Accessories" Article.
- K. Install vents in vertical head joints at the top of each continuous cavity at spacing indicated. Use round plastic tubing mesh weep holes/vents to form vents.
1. Close cavities off vertically and horizontally with blocking in manner indicated. Install through-wall flashing and weep holes above horizontal blocking.

### 3.4 CONSTRUCTION TOLERANCES

- A. Variation from Plumb: For vertical lines and surfaces, do not exceed 1/4 inch in 10 feet (6 mm in 3 m), 3/8 inch in 20 feet (10 mm in 6 m), or 1/2 inch in 40 feet (13 mm in 12 m) or more. For external corners, expansion joints, control joints, and other conspicuous lines, do not exceed 1/4 inch in 20 feet (6 mm in 6 m) or 1/2 inch in 40 feet (13 mm in 12 m) or more.
- B. Variation from Level: For bed joints and lines of exposed lintels, sills, parapets, horizontal grooves, and other conspicuous lines, do not exceed 1/4 inch in 20 feet (6 mm in 6 m) or 1/2 inch in 40 feet (13 mm in 12 m) or more.

- C. Variation of Linear Building Line: For position shown in plan, do not exceed 1/2 inch in 20 feet (13 mm in 6 m) or 3/4 inch in 40 feet (19 mm in 12 m) or more.
- D. Measure variation from level, plumb, and position shown in plan as variation of the average plane of the face of each stone from level, plumb, or dimensioned plane.
- E. Variation in Mortar-Joint Thickness: Do not vary from joint size range indicated.
- F. Variation in Plane between Adjacent Stones: Do not exceed one-half of tolerance specified for thickness of stone.

### 3.5 INSTALLATION OF ANCHORED STONE MASONRY

- A. Anchor stone masonry to concrete with corrugated-metal veneer anchors unless otherwise indicated. Secure anchors by inserting dovetailed ends into dovetail slots in concrete.
- B. Anchor stone masonry to unit masonry with adjustable, screw-attached veneer anchors unless otherwise indicated. Embed anchors in unit masonry mortar joints or grouted cells for distance at least one-half of unit masonry thickness.
- C. Anchor stone masonry to unit masonry with wire anchors unless otherwise indicated. Connect anchors to masonry joint reinforcement by inserting pintles into eyes of masonry joint reinforcement projecting from unit masonry.
- D. Anchor stone masonry to unit masonry with wire anchors unless otherwise indicated. Connect anchors to masonry joint reinforcement with vertical rods inserted through anchors and through eyes of masonry joint reinforcement projecting from unit masonry.
- E. Anchor stone masonry to unit masonry with adjustable, screw-attached veneer anchors unless otherwise indicated. Fasten anchors to unit masonry with two screws.
- F. Anchor stone masonry to stud framing with adjustable, screw-attached veneer anchors unless otherwise indicated. Fasten anchors through sheathing to framing with two screws.
- G. Anchor stone masonry to stud framing with screw-attached veneer anchors unless otherwise indicated.
- H. Anchor stone masonry to metal stud framing with wire anchors unless otherwise indicated. Tie anchors to studs.
- I. Embed veneer anchors in mortar joints of stone masonry at least halfway, but not less than 1-1/2 inches (38 mm), through stone masonry and with at least 5/8-inch (16-mm) cover on outside face.
  - 1. Install continuous wire reinforcement in horizontal joints and attach to seismic veneer anchors as stone is set.
- J. Space anchors to provide not less than 1 anchor per 2 sq. ft. (0.2 sq. m) of wall area. Install additional anchors within 12 inches (300 mm) of openings, sealant joints, and perimeter at intervals not exceeding 12 inches (300 mm).
- K. Space anchors not more than 16 inches (400 mm) o.c. vertically and 24 inches (600 mm) o.c. horizontally. Install additional anchors within 12 inches (300 mm) of openings, sealant joints, and perimeter at intervals not exceeding 12 inches (300 mm).

- L. Anchor stone trim with stone trim anchors where indicated. Install anchors by fastening to substrate and inserting tabs and dowels into kerfs and holes in stone units. Provide compressible filler in ends of dowel holes and bottoms of kerfs to prevent end bearing of dowels and anchor tabs on stone. Fill remainder of anchor holes and kerfs with mortar.
- M. Set stone in full bed of mortar with full head joints unless otherwise indicated. Build anchors into mortar joints as stone is set.
- N. Fill collar joint with mortar as stone is set where indicated.
- O. Provide 1-inch (25-mm) or nominal 2-inch (50-mm) cavity between stone masonry and backup construction unless otherwise indicated. Keep cavity free of mortar droppings and debris.
  - 1. Place mortar spots in cavity at veneer anchors to maintain spacing.
  - 2. Slope beds toward cavity to minimize mortar protrusions into cavity.
  - 3. Do not attempt to trowel or remove mortar fins protruding into cavity.
- P. Rake out joints for pointing with mortar to depth of not less than 3/4 inch (19 mm) before setting mortar has hardened. Rake joints to uniform depths with square bottoms and clean sides.

### 3.6 POINTING

- A. Prepare stone-joint surfaces for pointing with mortar by removing dust and mortar particles. Where setting mortar was removed to depths greater than surrounding areas, apply pointing mortar in layers not more than 3/8 inch (10 mm) deep until a uniform depth is formed.
- B. Point stone joints by placing and compacting pointing mortar in layers not more than 3/8 inch (10 mm) deep. Compact each layer thoroughly and allow to become thumbprint hard before applying next layer.
- C. Tool joints, when pointing mortar is thumbprint hard, with a smooth jointing tool to produce the following joint profile:
  - 1. Joint Profile: Rope style (to match James Madison University standard).

### 3.7 LINTELS

- A. Install steel lintels where indicated.
- B. Provide minimum bearing of 8 inches (200 mm) at each jamb unless otherwise indicated.

### 3.8 ADJUSTING AND CLEANING

- A. Remove and replace stone masonry of the following description:
  - 1. Broken, chipped, stained, or otherwise damaged stone. Stone may be repaired if methods and results are approved by Owner.
  - 2. Defective joints.
  - 3. Stone masonry not matching approved samples and mockups.
  - 4. Stone masonry not complying with other requirements indicated.

- B. Replace in a manner that results in stone masonry matching approved samples and mockups, complying with other requirements, and showing no evidence of replacement.
- C. In-Progress Cleaning: Clean stone masonry as work progresses. Remove mortar fins and smears before tooling joints.
- D. Final Cleaning: After mortar is thoroughly set and cured, clean stone masonry as follows:
  - 1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
  - 2. Test cleaning methods on mockup; leave one-half of panel uncleaned for comparison purposes. Obtain Owners's approval of sample cleaning before cleaning stone masonry.
  - 3. Protect adjacent stone and nonmasonry surfaces from contact with cleaner by covering them with liquid strippable masking agent, polyethylene film, or waterproof masking tape.
  - 4. Wet wall surfaces with water before applying cleaner; remove cleaner promptly by rinsing thoroughly with clear water.
  - 5. Clean stone masonry by bucket and brush hand-cleaning method described in BIA Technical Note No. 20 Revised II, using job-mixed detergent solution.
  - 6. Clean stone masonry with proprietary acidic cleaner applied according to manufacturer's written instructions.
  - 7. Clean limestone masonry to comply with recommendations in ILI's "Indiana Limestone Handbook."
- E. Pressure Washing: Prohibited.

### 3.9 EXCESS MATERIALS AND WASTE

- A. Excess Stone: Stack excess stone where directed by Owner for Owner's use.
- B. Disposal as Fill Material: Dispose of clean masonry waste, including mortar and excess or soil-contaminated sand, by crushing and mixing with fill material as fill is placed.
  - 1. Crush masonry waste to less than 4 inches (100 mm) in greatest dimension.
  - 2. Mix masonry waste with at least two parts of specified fill material for each part of masonry waste. Fill material is specified in Division 31 Section "Earth Moving."
  - 3. Do not dispose of masonry waste as fill within 18 inches (450 mm) of finished grade.
- C. Excess Masonry Waste: Remove excess clean masonry waste that cannot be used as fill, as described above, and other waste, and legally dispose of off Owner's property.

END OF SECTION

# 1008 - WIRE MESH FENCE

## PART 1 - GENERAL

### 1.1 SECTION INCLUDES

- A. Ornamental steel wire mesh fencing and gates.

### 1.2 RELATED SECTIONS

- A. Construction Drawings

### 1.3 REFERENCES

- A. ASTM A82: Cold Drawn Steel Wire, Plain, for Concrete Reinforcement.
- B. ASTM A185: Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.
- C. ASTM A1008: Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy (HSLA) and HSLA with Improved Formability.
- D. ASTM A787: Standard Specification for Electric-Resistance-Welded Metallic-Coated Carbon Steel Mechanical Tubing.
- E. ASTM A513: Standard Specification for Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing.
- F. ASTM A446: Standard Specification for Steel Sheet, Zinc Coated (Galvanized) by the Hot-Dip Process, Structural (physical) Quality.
- G. ASTM A500: Standard Specification for Cold formed welded and seamless carbon steel structural tubing in round shapes.
- H. ASTM A641: Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
- I. ASTM B6: Standard Specification for Zinc.
- J. ASTM B117: Standard Test Method of Salt Spray (Fog) Testing.
- K. ASTM B221: Standard Specification for Aluminum and Aluminum-alloy extruded bars, rods, wire, shapes and tubes.
- L. ASTM D2247: Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity.
- M. ASTM D2794: Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
- N. ASTM D3359: Standard Test Methods for Measuring Adhesion by Tape.
- O. ASTM F900: Standard Specification for industrial and commercial swing gates.
- P. ASTM F934: Standard Specification for Standard Colors for Polymer-Coated Chain

Link Fence Materials.

- Q. ASTM F1184: Standard Specification for industrial and commercial horizontal slide gates.
- R. ASTM F1234: Standard Specification for protection coatings on steel framework for fences.

1.4 SUBMITTALS

- A. Submit under provisions of Section 013300.
- B. Product Data: Material descriptions, construction details, dimensions of individual components and profiles, and finishes for the following:
  - 1. Fence and gate posts, rails, and fittings.
  - 2. Gates and hardware.
  - 3. Gate operators, including operating instructions.
  - 4. Motors: Show nameplate data, ratings, characteristics, and mounting arrangements.
- C. Shop Drawings:
  - 1. Show locations of fence, each gate, posts, rails, and details of gate swing, or other operation, hardware, and accessories.
  - 2. Indicate materials, dimensions, sizes, weights, and finishes of components.
  - 3. Include plans, elevations, sections, gate swing and other required installation and operational clearances, and details of post anchorage, attachment and bracing.
  - 4. Installation procedures and instructions describing details for a typical fence and gates.
  - 5. Gate Operator: Show locations and details for installing operator components, switches, and controls. Indicate motor size, electrical characteristics, drive arrangement, mounting, and grounding provisions.
  - 6. Wiring Diagrams: Power and control wiring, communication features, and access control features. Differentiate between factory-installed and field-installed wiring and between components provided by fence manufacturer and those provided by sections.
- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
- F. Qualification Data: For firms and persons specified in "Quality Assurance" article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- G. Maintenance Data: Provide a maintenance guide and parts list for the gate operators.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed fences and gates similar in material, design, and extent to those indicated for this Project and whose

work has resulted in construction with a record of successful in-service performance.

- B. Material Requirements:
  - 1. Obtain each color, grade, finish, type, and variety of components for fences and gates from one source with resources to provide fences and gates of consistent quality in appearance and physical properties.
  - 2. Electrical Components, Devices, and Accessories: listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
  - 3. Provide gate operators that comply with UL 325.
- C. System Requirements: Emergency Access Requirements shall comply with requirements of authorities having jurisdiction for automatic gate operators serving as a required means of access.
- D. Mock-Up: Provide a mock-up for evaluation of overall appearance and application workmanship.
  - 1. Construct areas designated by Engineer.
  - 2. Do not proceed with remaining work until workmanship and material are approved by Engineer.
  - 3. Correct mock-up installation as required to produce acceptable work.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's tagged and unopened packaging until ready for installation.

#### 1.7 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
  - 1. Notify local utility marking services before beginning work.
  - 2. Notify Engineer in advance of proposed utility interruptions per general provisions of the contract.
  - 3. Do not proceed with utility interruptions without Engineer's written permission.
- B. Field Measurements: Verify layout information for fences and gates shown on drawings in relation to property survey and existing structures. Verify dimensions by field measurements.

#### 1.8 WARRANTY

- A. Ten-Year Limited Warranty:
  - 1. Manufacturer hereby guarantees, against any and/or all defects, the quality of the galvanized and polyester-coated steel fence products.
  - 2. This warranty shall cover standard fence components set in normal fencing conditions.
  - 3. For fence products galvanized and coated, the warranty shall extend to ten years, from the date of purchase, on fence line items and five years on gate assemblies.
  - 4. Coverage shall be provided on the galvanized steel wire incorporated into the fence system against any and all defects or failures resulting from rust or corrosion.

5. The polyester powder finish shall be guaranteed against flaking or blistering but does not cover fading or spots.
6. If galvanized only, on fence line items and gate frame, the warranty shall extend to ten (10) years for structural integrity only and not against rust.
7. This warranty shall not cover fence installations exposed to chemicals, harsh marine environments, or in which the wire mesh panel is partially submerged or buried. It shall exclude damage resulting from accidents, improper installation or vandalism.
8. Manufacturer limits its liability to the prompt replacement of the defective material. The expenses incurred for the removal of the defective product and the installation of its replacement shall not be within the scope of the warranty.

B. The warranty shall extend only to the initial purchaser and is non-transferable.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers: Licensees of Omega II Fence Systems, licensees of Legi Fence, licensees of A & T Ironworks, licensees of Jerith Manufacturing Company, Inc., or approved equivalent.
- B. Requests for substitutions will be considered in accordance with provisions of Section 013300.

2.2 All substitution approval requests shall be accompanied by manufacturing drawings and specifications, and they shall meet all specifications for design, size, gauge of metal parts, and fabrication.

### 2.3 WIRE MESH FENCING

- A. Fencing system, as indicated on the drawings, includes:
  1. Polyester powder coated, steel fencing panel, post and accessory system.
  2. Gates and hardware.
  3. Gate operator.
  4. Grounding and bonding.
  5. Height: 4 feet (1245 mm).
  6. Height: 6 feet (1778 mm).
  7. Height: 5 feet (1549mm).
  8. Height: 8 feet (2464 mm).
  9. Height: A multiple of stacked panels to achieve height as indicated.
  10. Height: As indicated and detailed on drawings.
- B. Steel Mesh Fence Panels: The wire mesh fence panels shall be welded by resistance welding per ASTM A185 using 6 gage - 0.192 inch (4.9 mm) pre-galvanized steel wire, welded at each crossing to form rectangles of 2 inches by 6 inches (50 mm by 150 mm). The cold rolled wire shall have a tensile strength of at least 75,000 lbs/sq in (515 MPa) and a 2172 lb (985 Kg) breaking strength.
  1. (GBW): Applied on wire, 0.5 ounce per square foot (150 g/m<sup>2</sup>) zinc coating conforming to the ASTM A 641.
  2. One end of the vertical wires of the panel shall exceed 1 inch (25 mm) from the last or first horizontal wire thereby creating a spiked top or bottom depending of its position when installed. The other end is cut flush. A 4 mil polyester powder

coating is applied on the mesh panel after fabrication. Panels shall have a number of folds according to the table below depending on the respective height of the panel:

3. A 4 mil polyester powder coating shall be applied on the mesh.
4. Mesh Panel Folds: 4 feet (1245 mm) high, 7 feet 8 inches (2356 mm) wide, 2 folds.
5. Mesh Panel Folds: 5 feet (1549 mm) high, 7 feet 8 inches (2356 mm) wide, 2 folds.
6. Mesh Panel Folds: 6 feet (1778 mm) high, 7 feet 8 inches (2356 mm) wide, 3 folds.
7. Mesh Panel Folds: 8 feet (2464 mm) high, 7 feet 8 inches (2356 mm) wide, 4 folds.

C. Post:

1. Application: System components shall be for in-ground applications.
2. Application: System components shall be for flanged applications.
3. Posts: Square posts or profiled posts as specified.
4. Gate Posts: Square posts as specified.

D. Finish: Polyester powder coated as specified.

1. Color: Standard black color.
2. Color: As selected by Architect from manufacturer's available colors.

## 2.4 POSTS AND FITTINGS

A. Post:

1. Square Posts: Square posts are cold rolled from 1008 grade steel and meet ASTM 513 and ASTM A787-01, G90 zinc coating (galvalume process). Provide post wall thickness and size as required to meet performance requirements of Project.
  - a. Post 2 by 2 inches, 16 gage, 4 feet high: 329 pounds.
  - b. Post 2 by 2 inches, 16 gage, 5 feet high: 263 pounds.
  - c. Post 2 by 2 inches, 11 gage, 4 feet high: 578 pounds.
  - d. Post 2 by 2 inches, 11 gage, 5 feet high: 463 pounds.
  - e. Post 2 by 2 inches, 11 gage, 6 feet high: 385 pounds.
  - f. Post 2 by 2 inches, 11 gage, 8 feet high: 289 pounds.
  - g. Post 3 by 3 inches, 11 gage, 4 feet high: 1383 pounds.
  - h. Post 3 by 3 inches, 11 gage, 5 feet high: 1106 pounds.
  - i. Post 3 by 3 inches, 11 gage, 6 feet high: 922 pounds.
  - j. Post 3 by 3 inches, 11 gage, 8 feet high: 691 pounds.
  - k. Profile Post, 16 gage, 4 feet high: 338 pounds.
  - l. Profile Post, 16 gage, 5 feet high: 271 pounds.
  - m. Profile Post, 16 gage, 6 feet high: 226 pounds.
  - n. Profile Post, 16 gage, 8 feet high: 169 pounds.
2. Gate Posts: Square posts are cold rolled from 1008 grade steel and meet ASTM 513 and ASTM A787-01, G90 zinc coating (galvalume process).

B. Universal Post Bracket:

1. Standard Fence: The attachment kit includes 12 gage (2.6 mm) steel collar and wire retaining plate 1/4 inch by 1 inch (6.3 mm by 25 mm), nut, washer and carriage bolt 5/16 inch by 1-1/4 inches (8.0 mm by 32 mm) - all galvanized steel. For 90 degree turn, use the same bracket. For different angles, use the " Universal angle brackets "

2. Secur Fence: The attachment kit includes 12 gage (2.6 mm) steel collar and wire retaining plate 1/4 inch by 1 inch (6.3 mm by 25 mm), nut , vandal roof nut and carriage bolt 5/16 inch by 1-1/4 inches (8.0 mm by 32 mm) - all galvanized steel. For 90 degree turn, use the same bracket. For different angles, use the " Universal angle brackets "
  3. Universal Bracket Kits: 4 for 4 foot high panels typical, except provide 6 for Elite or Secur Fence Systems.
  4. Universal Bracket Kits: 6 for 5 foot (1230 mm) high panels.
  5. Universal Bracket Kits: 6 for 6 foot (1830 mm) high panels.
  6. Universal Bracket Kits: 8 for 8 foot (2464) high panels.
- C. Post Caps: Aluminum for the 2 inches by 2 inches (50 mm by 50 mm) square post and galvanized steel for other square posts. PVC plastic for the profile post. Polyester coating to match post where specified.
- D. Tensioning Clips for Profile Post: made of PVC plastic.
- E. The Special Panel Fitting - SPF enables a panel to be fastened to any vertical or horizontal surface, such as a steel, concrete beam or a wood post. All hot dip galvanized. Provide as required.
1. SPF-W: Mounting on a vertical surface, consists of an L-shaped slotted plate, which accommodates a 1-3/4 inches (45 mm) vertical adjustment, and a retaining plate that hold two vertical wires when bolted together.
  2. SPF-C: Mounting on horizontal surfaces, uses the same "L" shaped slotted plate and wire retaining plates.
  3. SPF-P: Connects the vertical wire of two panels together.
  4. SPF-N: Connects the horizontal wire of two panels together.
  5. The 90° attachment bracket in 4 feet (1200 mm) and 6 feet (1800 mm), made of pre-galvanized steel 16 gage minimum are designed to attach the Wire mesh fence Architectural panels (only) to masonry wall or other types.
- F. Concrete: Refer to Section 033055.

## 2.5 COATINGS

- A. Polyester coating shall be minimum 4 mils applied by an electrostatic method. Coating shall cover all surfaces of the wire and post sections. Coating shall be capable of withstanding the following tests:
1. Mechanical adhesion test per ASTM D 3359 - Method B.
  2. Shock resistance tests per ASTM D 2794.
  3. Salt spray testing with a minimum of 1,000 hrs without red rust appearance, per ASTM B 117.
  4. Humidity resistance in a weather meter chamber per ASTM D 2247.
  5. Color: As selected by Architect from manufacturer's available finishes and colors.

## 2.6 SINGLE / DOUBLE SWING GATES

- A. Gate Frames: Swing gates shall be made in accordance with ASTM F900 using galvanized square steel tube 2 inches by 2 inches (50 mm by 50 mm) vertical and horizontal parts shall be welded at intersections to create a rigid frame.

- B. Mesh Section: Match panel.
- C. Gate Posts: Gate posts shall be produced per ASTM A787, G90 zinc coating (galvalume process) - 0.90 oz/sf (0.27kg/m<sup>2</sup>) steel square sections in conformity to ASTM B-6. The steel shall meet the requirements of structural quality steel with a 45,000 psi (310 MPa) tensile strength.
- D. The size of the posts shall be as shown below for typical gate dimensions:
  1. Single frame gate opening: 6 feet (1830 mm) or less, square post size 3 inches by 3 inches (76 mm by 76 mm).
  2. Single frame gate opening: 6.1 feet (1860 mm) to 13.5 feet (4115 mm), square post size 4 inches by 4 inches (102 mm by 102 mm).
  3. Single frame gate opening: 14 feet (4265 mm) to 16 feet (4875 mm), square post size 6 inches by 6 inches (152 mm by 152 mm).
  4. Single frame gate opening: 16 feet (4876 mm) and more are custom.
- E. Gate Hardware: in conformity with ASTM F900 for hinges, latch, drop rods, shall be hot-dip galvanized steel, and sized to assure proper gate operation. Non moving parts shall be powder coated.
  1. Hinge: structurally designed to support all gates without deformation during opening and closing.
  2. Latch: Clamp-on gravity system that is self latching.
  3. Gate Keeper for Double Leafed Models: Gate keeper consist of mechanical device with gravity-lock system that fasten each gate leaf when in full open position.
  4. Double Gates Hardware: Consists of: One drop bar to secure in closed position one of the gate leaves complete, with stop pipe to engage the center drop rod. And one self-locking device with padlock eyes as an integral part of latch.
  5. Keyed Lock-Box: LOCINOX single-lever model.
  6. Keyed Lock-Box: LOCINOX double-lever model.

## 2.7 CANTILEVER GATES

- A. Cantilever slide gates shall be fabricated in accordance with ASTM F1184, Class 2, using 2 inches (50 mm) square aluminum members, ASTM B221, alloy and temper 6063-T6, weighing 0.94 lb/ft (1.39 kg/m). Members shall be welded together forming a rigid one-piece frame integral with top track. Provide two track and wheel assemblies for each gate leaf, except as indicated for gates larger than 30 feet (9144 mm). Gates over 27 feet (8230 mm) in single opening shall be shipped in two parts and field spliced with special attachments provided by manufacturer. Vertical uprights: 2 inches by 2 inches (50 mm by 50 mm) shall be made of aluminum welded to the gate frame, at approximately 8 feet (2440 mm) apart and dividing the frame into equal sections.
  1. Gate Leaf Single Opening, 6 feet (1830 mm) to 10 feet 3040 mm); cantilever support (overhang) 6.5 feet (1980 mm).
  2. Gate Leaf Single Opening, 11 feet (3350 mm) to 14 feet 4270 mm); cantilever support (overhang) 7.5 feet (2290 mm).
  3. Gate Leaf Single Opening, 15 feet (4570 mm) to 22 feet 6710 mm); cantilever support (overhang) 10 feet (3040 mm).
  4. Gate Leaf Single Opening, 23 feet (7010 mm) to 30 feet 9010 mm); cantilever support (overhang) 12 feet (3660 mm). For gate leaf sizes 23 feet (7010 mm) to 30 feet (9140 mm), an additional 2 inches (50 mm) square lateral support shall be welded to top horizontal rail. Bottom rail shall consist of 2 inches by 4 inches (50

- mm by 100 mm) aluminum member weighing 1.71 lb/ft (2.54 kg/m).
5. Gate Leaf Single Opening, 31 feet (9450 mm) to 35 feet (10670 mm); cantilever support (overhang) 13.5 feet (4120 mm). For gate leaf sizes 31 feet (9450 mm) to 40 feet (12190 mm), weld two top track/rails together forming a dual enclosed track. Provide two truck assemblies for each track for each gate leaf, total four truck assemblies. Bottom rail shall consist of 2 inches by 4 inches (50 mm by 100 mm) Aluminum member weighing 1.71 lb/ft (2.54 kg/m).
  6. Gate Leaf Single Opening, 41 ft (12500 mm) to 50 ft (15240 mm); cantilever support (overhang) custom made. For gate leaf sizes 41 feet (12500 mm) to 50 ft (15240 mm), fabricate 24 inches (610 mm) wide rigid box frame truss. Truss shall consist of dual side frames separated by square cross members and diagonal truss rod bridging. Dual side frames shall each contain top track/rail to provide support for truss from both sides. Provide four trucks for each track, total eight for each gate leaf. Weld steel plate between top of support posts to maintain truck assemblies in alignment with tracks.
- B. Mesh Section: Same as fence mesh panel.
  - C. Bracing: Provide diagonal adjustable length truss rods, of 3/8 inch (9.5 mm) galvanized steel, in each panel of gate frames.
  - D. Top Track/Rail: Enclosed, combination one-piece track and rail, aluminum extrusion with weight of 3.72 lb/ft (5.54 kg/m). Track to withstand reaction load of 2000 lb (907 kg) Track does not receive polymer coating.
  - E. Truck Assembly: Swivel type, zinc die cast, with four sealed lubricant ball bearing rollers, 2 inches (50 mm) in diameter by 9/16 inches (14 mm) in width, and two side rolling wheels to ensure truck alignment in track. Mount trucks on post brackets using 7/8 inches (22 mm) diameter ball bolts with 1/2 inch (13 mm) shank. Design truck assembly to withstand same reaction load as track.
  - F. Gate Hangers, Latches, Brackets, Guide Assemblies, and Stops: Malleable iron or steel, galvanized after fabrication. Provide positive latch with provisions for padlocking. These fittings do not receive Polymer coating.
  - G. Bottom Guide Wheel Assemblies: Each assembly shall consist of two 4 inches (100 mm) diameter rubber wheels, straddling bottom horizontal gate rail, allowing adjustment to maintain gate frame plumb and in proper alignment. Attach one assembly to each guide post. These fittings do not receive polymer coating.
  - H. Gate Posts: Gate posts shall be 3 inches (76.2 mm) hot-dipped galvanized steel square sections weighing 7.04 lb/ft (10.8 kg/m) Pipe shall have a minimum 1.8 ounce/ft zinc coating meeting ASTM F1234. The steel shall meet requirements of ASTM A500, Grade B with minimum yield strength of 40,000 psi. Provide one latch post and two support posts for single slide gate and four support posts for double slide gates.
  - I. Polyester Powder Coating: Match system and color of fence.
  - J. Natural Aluminum or Polymer Coated in color to match fence.

PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for site clearing, earthwork, pavement work, and other conditions affecting performance.
  - 1. Do not begin installation before final grading is completed, unless otherwise permitted by Architect.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet (152.5 m) or line of sight between stakes.
- B. Have locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments marked by registered surveyor and utility companies.

### 3.3 INSTALLATION GENERAL

- A. Install fencing on established boundary lines inside property line
- B. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacing indicated, in firm, undisturbed or compacted soil.
- C. Post Setting: Set posts in concrete footing. Protect portion of posts above ground from concrete splatter. Place concrete around posts and consolidation. Using mechanical devices to set posts is not permitted. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during placement and finishing operations until concrete is sufficiently cured.
  - 1. Square Posts or Profiled Posts: As indicated on Drawings.
  - 2. Space line posts uniformly at center to center.
  - 3. Exposed Concrete Footings: Extend concrete 2 inches (50 mm) above grade, or as indicated on Drawings, smooth, and shape to shed water.
  - 4. Concealed Concrete Footings: Stop footings 2 inches (50 mm) below grade or as indicated on Drawings to allow covering with surface material.
  - 5. Posts Set into Concrete in Sleeves: Use steel pipe sleeves preset and anchored into concrete for installing posts. After posts have been inserted into sleeves, fill annular space between post and sleeve with non shrink, non metallic grout, or anchoring cement, mixed and placed to comply with anchoring material manufacturer's written instructions, and finished sloped to drain water away from post.
  - 6. Posts Set into Concrete in Voids: Form or core drill holes not less than 5 inches (125 mm) deep and 3/4 inch (20 mm) larger than OD of post. Clean holes of loose material, insert posts, and fill granular space between post and concrete with non shrink, non metallic grout or anchoring cement, mixed and placed to comply with anchoring material manufacturer's written instructions, and finished sloped to drain water away from post.
  - 7. Flange Post Installation: Bolt mounting plates attached to each post to slab or structure as indicated, using expansion bolts.

- D. Upon cutting or trimming, a post or a wire mesh section, apply a zinc rich primer to the exposed ends and finish with the matching touch-up paint, if coated, supplied by the manufacturer.

### 3.4 FENCE INSTALLATION

- A. Terminal Posts: Locate terminal end, corner, and gate posts at changes in horizontal or vertical alignment of:
  - 1. 15 degrees or more.
  - 2. 30 degrees or more.
  - 3. As indicated on Drawings.
  - 4. \_\_\_\_\_
- B. Comply with chain link fence installation standard ASTM F 567.
- C. Post installation: Set posts in concrete. Dig holes having a diameter 4 times the diameter of the post and 6 inches (150 mm) deeper than the bottom of the post. Forms are not necessary or recommended. Crown concrete at top to shed water (except for tennis courts). Set posts in a vertical position, plumb and in line. Pour concrete and let cure.
- D. Panel installation: Attach the panels to the posts with eye-U-bracket and/or tie wire or twist tie. Where two panels meet and no post is set, simply join them with the end-to-end connectors used for panel to panel linkage. No predetermined post spacing, up to the maximum spacing recommended. Attach panel to corner posts with bands spaced maximum of 24 inches (2610 mm) on center.
- E. Square Post Installation: Post hole shall be a minimum of 8 inches (200 mm) in diameter and 42 inches (1070 mm) in depth. Once the concrete is set, the mesh sections are installed with the bracket, always install flush with horizontal wire of the panel with no gap.
- F. Profiled posts installation: Insert the first post vertically in quick-set concrete at its proper height. The post needs to be a minimum of 18 inches (460 mm) in concrete. Once the concrete is set, the mesh section is then hooked on the post and held in place with two tensioning clips. The second post, placed in the hole pre-filled with concrete is then hooked onto the other side of the mesh sections. The end section is fixed with two tensioning clips and held until the concrete is cured. The procedure continues until the fencing is completed.
- G. Mesh Panels: Vertical wire extensions, pointing up for security or down for safety. The fence panel shall be installed a distance of a minimum of 1-1/4 inches (30 mm) and maximum of 2 inches (50 mm) above the ground surface. Refer to details for project requirements.

### 3.5 CAST-IN-PLACE CONCRETE

- A. General: Comply with ACI 301 for cast-in-place concrete.
- B. Materials: Portland cement complying with ASTM C 150, aggregates complying with ASTM C 33, and potable water.
  - 1. Measure, batch, and mix site-mixed concrete according to ASTM C 94.
  - 2. Concrete Mixture: Normal-weight concrete with not less than 3000 psi (20.7-

Mpa) compressive strength (28 days), 3-inch (75-mm) slump, and contain " coarse aggregate " of a minimum diameter of 5 mm (0.20 inches) to a maximum of 3/4 inches (20 mm) maximum size aggregate.

3. A 5 to 7 percent air entrained admixture shall be used.

- C. Materials: Dry-packaged concrete mix complying with ASTM C 387 for normal-weight concrete mixed with potable water according to manufacturer's written instructions.

### 3.6 GROUT AND ANCHORING CEMENT

- A. Non-shrink, Nonmetallic Grout: Premixed, factory-packaged, non-staining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout, recommended in writing by manufacturer, for exterior applications.
- B. Erosion-Resistant Anchoring Cement: Factory-packaged, non-shrink, non-staining, hydraulic-controlled expansion cement formulation for mixing with potable water at Project site to create pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended in writing by manufacturer for exterior applications.

### 3.7 GATE INSTALLATION AND ADJUSTMENT

- A. Install gate posts in accordance with manufacturer's instructions.
- B. Concrete Set Gate Posts: Drill holes in firm, undisturbed or compacted soil. Holes shall have a diameter 4 times greater than outside dimension of post, and depths approximately 152mm (6 inches) deeper than frost level. Excavate deeper as required for adequate support in soft and loose soils, and for posts with heavy lateral loads. Set post bottom 36 inches (914mm) below surface when in firm, undisturbed soil. Place concrete around posts in a continuous pour, tamp for consolidation. Trowel finish around post and slope to direct water away from posts. Check each post for vertical and top alignment, and maintain in position during placement and finishing operations.
- C. Install gates horizontal and leveled (at junction), plumb, and secure for full opening without interference.
- D. Attach hardware with the nuts inside the property thus making the assembly tamper-proof which will prevent unauthorized removal. Install ground-set items in concrete for anchorage.
- E. Adjust hardware for smooth operation and lubricate where necessary to operate smoothly, easily, and quietly, free from binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.

### 3.8 GROUNDING AND BONDING

- A. Fence Grounding: Install at maximum intervals of 1500 feet (450 m) except as follows:
  - 1. Fences within 100 feet (30 m) of Buildings, Structures, Walkways, and Roadways: Ground at maximum intervals of 750 feet (225 m).

2. Gates and Other Fence Openings: Ground fence on each side of opening.
    - a. Bond metal gates to gate posts.
    - b. Bond across openings, with and without gates, except openings indicated as intentional fence discontinuities. Use No. 2 AWG wire and bury it at least 18 inches (460 mm) below finished grade.
  3. Conductors: Bare, solid wire for No. 6 AWG and smaller; stranded wire for No. 4 AWG and larger.
    - a. Material above Finished Grade: Copper.
    - b. Material on or Below Finished Grade: Copper.
    - c. Bonding Jumpers: Braided copper tape, 1 inch (25 mm) wide, woven of No. 30 AWG bare copper wire, terminated with copper ferrules.
  4. Connectors and Ground Rods: Listed in UL 467.
    - a. Connectors for Below-Grade Use: Exothermic welded type.
    - b. Ground Rods: Copper-clad steel. Size: 5/8 inch by 96 inches (16 mm by 2400 mm).
- B. Protection at Crossings of Overhead Electrical Power Lines: Ground fence at location of crossing and at a maximum distance of 150 feet (45 m) on each side of crossing.
- C. Fences Enclosing Electrical Power Distribution Equipment: Ground as required by IEEE C2, unless otherwise indicated.
- D. Grounding Method: At each grounding location, drive a ground rod vertically until the top is 6 inches (150 mm) below finished grade. Connect rod to fence with No. 6 AWG conductor. Connect conductor to each fence component at the grounding location.
- E. Bonding Method for Gates: Connect bonding jumper between gate post and gate frame.
- F. Connections: Make connections so possibility of galvanic action or electrolysis is minimized. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact will be galvanically compatible.
  1. Use electroplated or hot-tin-coated materials to ensure high conductivity to make contact points closer in order of galvanic series.
  2. Make connections with clean, bare metal at points of contact.
  3. Make aluminum-to-steel connections with stainless-steel separators and mechanical clamps.
  4. Make aluminum-to-galvanized-steel connections with tin-plated copper jumpers and mechanical clamps.
  5. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.
- G. Bonding to Lightning Protection System: If fence terminates at lightning-protected building or structure, ground the fence and bond the fence grounding conductor to lightning protection down conductor or lightning protection grounding conductor complying with NFPA 780.

### 3.9 FIELD QUALITY CONTROL- GROUNDING

- A. Ground-Resistance Testing Agency: Engage a qualified independent testing agency to perform field quality-control testing.
- B. Ground-Resistance Tests: Subject completed grounding system to a megger test at each grounding location. Measure ground resistance not less than two full days after last

trace of precipitation, without soil having been moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural ground resistance. Perform tests by two-point method according to IEEE 81.

- C. Desired Maximum Grounding Resistance Value: 25 ohms.
- D. Excessive Ground Resistance: If resistance to ground exceeds desired value, notify Engineer promptly. Include recommendations to reduce ground resistance and proposal to accomplish recommended work.
- E. Report: Prepare test reports, certified by testing agency, of ground resistance at each test location. Include observations of weather and other phenomena that may affect test results.

### 3.10 OPERATOR ADJUSTING

- A. Automatic Gate Operator: Energize circuits to electrical equipment and devices. Adjust operators, controls, safety devices, alarms, and limit switches.
  - 1. Electrohydraulic Operator: Purge operating system, adjust pressure and fluid levels, and check for leaks.
  - 2. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation. Perform tests to confirm that operation meets desired function. Remove damaged and malfunctioning units, replace with new units, and retest.
- B. Lubricate moving parts.

### 3.11 OPERATOR DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's personnel to adjust, operate, and maintain gates.
  - 1. Test and adjust operators, controls, devices and operating hardware. Replace damaged or malfunctioning operable components.
  - 2. Train Owner's personnel on procedures and schedules for starting and stopping, troubleshooting, servicing, and maintaining equipment and schedules.
  - 3. Review data in maintenance manuals. Refer to Division 1 Section "Contract Closeout." and/ or Section "Operation and Maintenance Data." For demonstration and documentation requirements.

### 3.12 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION 323114

## 1009 – INTERCONNECTED PREFORMED THERMOPLASTIC PAVEMENT MARKING MATERIAL

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. A durable, pavement overlay marking material suitable for streetscape and traffic calming purposes on public roads and private properties. The material shall be equally suitable for concrete and asphalt surfaces.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. The material must be a resilient preformed thermoplastic product which contains a minimum of thirty percent (30%) intermixed anti-skid/anti-slip elements and where the top surface contains anti-skid/anti-slip elements. These anti-skid/anti-slip elements must have a minimum hardness of 8 (Mohs scale) and meet the following gradation:

Size		Intermix		Drop - On	
us Mesh	mm	Retained,	Passing,	Retained,	Passing,
10	2000	0 - 10%	90 - 100%		
12	1700	5 - 25%	75 - 95%		
14	1400	15 - 50%	50 - 85%		
16	1180	15 - 50%	50 - 85%	0 - 5%	95 - 100%
18	1000	10 - 30%	70 - 90%	0 - 10%	90 - 100%
20	850	0 - 5%	95 - 100%	5 - 25%	75 - 95%
25	710	0 - 2%	98 - 100%	15 - 50%	50 - 85%
30	600			15 - 50%	50 - 85%
35	500			5 - 25%	75 - 95%
40	425			0 - 10%	90 - 100%

- B. The material must be resistant to the detrimental effects of motor fuels, antifreeze, lubricants, hydraulic fluids, etc.
- C. The material shall be capable of being applied on bituminous and/or portland cement concrete pavements primarily by the use of an infrared heater supplied by the material manufacturer. A handheld propane heat torch supplied by the material manufacturer may be used in isolated areas. The use of a compactor or similar equipment shall not be necessary. The material must be able to be applied to asphalt and concrete surfaces without preheating the application surface to a specific temperature. The material must be capable of being affixed to green concrete (concrete that has set but not appreciably hardened). The material shall not require the portland cement concrete application areas to be cured or dried out.
- D. The material must be capable of conforming to pavement contours, breaks and faults through the action of traffic at normal pavement temperatures. It shall not be necessary to use a grid template or to make pattern grooves or other indentations in the asphalt or concrete surface prior to applying the

material. It shall not be necessary to inlay the material in grooves or indentations. It shall not be necessary to heat the pavement or application surface to a specific temperature.

- E. The material is typically supplied in segments measuring 24 in. (61cm) by 24 in. (61cm). The material must be factory assembled and interconnected with a compatible material, so that it is unnecessary to assemble the individual "brick" pieces at the jobsite. Certain 24 in. (61cm) by 24 in. (61cm) material segments may be rotated to create additional pattern options using standard parts.
- F. Interchangeable, patterned borders shall be available in either 8 in. (20cm) or 12 in. (30cm) wide by 24 in. (61cm) long sizes, to allow flexibility in design options using standard parts.
- G. The material must be able to be applied in temperatures down to 45°F (7.2°C) without any special storage, preheating or treatment of the material before application.
- H. The material must be able to be applied to asphalt and concrete surfaces without using a grid template and without forming a pattern in the pavement substrate. Heating indicators must be evenly distributed on the surface of the material in order to ensure correct application.
- I. The material must cover the entire application area and be flush across the surface. Once applied, no part of the pavement surface should be visible in the application area.
- J. Must be composed of an ester modified rosin impervious to degradation by motor fuels, lubricants, etc. in conjunction with aggregates, pigments, binders, and anti-skid/anti-slip elements. Pigments and anti-skid/anti-slip elements must be uniformly distributed throughout the material. The thermoplastic material conforms to AASHTO designation M249, with the exception of the relevant differences due to the material being supplied in a preformed state, being non-reflective, and potentially being of a color different from white or yellow.

## 2.2 MANUFACTURING CONTROL AND ISO CERTIFICATION:

- A. The manufacturer must be ISO 9001:2008 certified for design, development and manufacturing of preformed thermoplastic, and provide proof of current certification.

## 2.3 PIGMENTS

- A. Colors: The color shall match existing City of Harrisonburg Streetprint crosswalks. The pigment system must not contain heavy metals nor any carcinogen, as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.

## 2.4 HEATING INDICATORS

- A. The top surface of the material shall have regularly spaced indents. These indents shall act as a visual cue during application that the material has reached a molten state allowing for satisfactory adhesion and proper embedment of anti-skid/anti-slip elements, and a post-application visual cue that the application procedures have been followed.

## 2.5 SKID RESISTANCE

- A. The surface of the preformed thermoplastic material shall contain factory applied anti-skid material with a minimum hardness of 8 (Mohs scale). Upon application the material shall provide a minimum

skid resistance value of 60 BPN when tested according to ASTM E 303.

## 2.6 SLIP RESISTANCE

- A. The surface of the preformed thermoplastic material shall contain factory applied anti-skid material with a minimum hardness of 8 (Mohs scale). Upon application the material shall provide a minimum static friction coefficient of 0.6 when tested according to ASTM C 1028 (wet and dry), and a minimum static coefficient of friction of 0.6 when tested according to ASTM D 2047.

## 2.7 THICKNESS

- A. The material must be supplied at a minimum thickness of 125 mil (3.18mm).

## 2.8 ENVIRONMENTAL RESISTANCE

- A. The material must be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.

## 2.9 INTERCONNECTED

- A. The material must consist of interconnected individual pieces of preformed thermoplastic pavement marking material, which through a variety of colors and patterns, make up the desired design. The individual pieces in each material segment, typically 24 in. (61cm) by 24 in. (61cm), must be factory assembled and interconnected with a compatible material so that in the field it is not necessary to assemble the individual pieces within a material segment. Multiple patterned border segment options shall be available in the material in either 8 in. (20cm) or 12 in. (30cm) wide by 24 in. (61cm) long sizes.

## 2.10 PATTERN

- A. The pattern shall be diagonal herringbone with horizontal border parallel to cross walk.

# 3 PART 3 - EXECUTION

## 3.1 MANUFACTURER CERTIFIED APPLICATOR REQUIREMENT

- A. The material shall be supplied and applied only by an applicator certified by the material manufacturer. The applicator shall provide proof of current certification before commencing work. The Certified Applicator shall follow the material manufacturer's current published application procedures.

## 3.2 ASPHALT

- A. The material shall be applied primarily by using an infrared heater supplied by the material manufacturer. A handheld propane heat torch supplied by the material manufacturer may be used in isolated areas. The material must be able to be applied at ambient and road temperatures down to 45°F (7.2°C) without any preheating of the pavement to a specific temperature. A sealer specified and supplied by the material manufacturer must be applied to the substrate prior to material application to ensure proper adhesion, and to provide bond reinforcement for larger volumes of material. The sealer must be supplied by the material manufacturer in 300/600ml cartridges along with sealer application supplies. A thermometer shall not be required during the

application process. The pavement shall be clean, dry and free of debris. The supplier must provide current application instructions to the Certified Applicator.

### 3.3 PACKAGING:

- A. The preformed thermoplastic material shall be placed in protective plastic film with cardboard stiffeners where necessary to prevent damage in transit. The cartons in which packed shall be non-returnable and shall not exceed 25 in. (64cm) in length and 25 in. (64cm) in width. Packages shall be labeled for ease of identification. The weight of the individual carton must not exceed fifty (50) pounds (23kg). A protective film around the box must be applied in order to protect the material from rain or premature aging.

END OF SECTION



## ATTACHMENT A. REFERENCES LIST

Indicate below a listing of at least three (3) current or recent client references, either commercial or governmental, that your company is servicing, has serviced, or has provided similar goods or services.

### **Reference #1**

Company: \_\_\_\_\_ Contact Person: \_\_\_\_\_

Phone #: \_\_\_\_\_ Email: \_\_\_\_\_

Project: \_\_\_\_\_ Dates of Service: \_\_\_\_\_

### **Reference #2**

Company: \_\_\_\_\_ Contact Person: \_\_\_\_\_

Phone #: \_\_\_\_\_ Email: \_\_\_\_\_

Project: \_\_\_\_\_ Dates of Service: \_\_\_\_\_

### **Reference #3**

Company: \_\_\_\_\_ Contact Person: \_\_\_\_\_

Phone #: \_\_\_\_\_ Email: \_\_\_\_\_

Project: \_\_\_\_\_ Dates of Service: \_\_\_\_\_

Indicate below a listing of at least one (1) current or recent client/account that has terminated your company's services within the last two (2) years. Account(s) are preferred to be government accounts of a similar size and nature.

### **Reference #4**

Company: \_\_\_\_\_ Contact Person: \_\_\_\_\_

Phone #: \_\_\_\_\_ Email: \_\_\_\_\_

Project: \_\_\_\_\_ Dates of Service: \_\_\_\_\_

## **COMPANY BACKGROUND**

Number of Years in Business: \_\_\_\_\_

Overview of Work History, Experience & Background of Company:

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***\*This document must be completed & returned with bid submission.***