

STATE HIGHWAY ADMINISTRATION

Larry Hogan Governor

Boyd K. Rutherford Lt. Governor

Pete K. Rahn Secretary

Gregory Slater Administrator

ADDENDUM

TO:	ALL HOLDERS OF CONTRACT DOCUMENTS
	DIRECTOR ERIC E. MARABELLO, P.E.
SUBJECT:	AX7665D82 ADDENDUM NO. 2
	F.A.P. NO. AC-STBG-000B(276)E
	AREAWIDE TOTAL MAXIMUM DAILY LOAD (TMDL) DESIGN-BUILD PROJECT
DATE:	OCTOBER 19, 2018

Please be advised that the Maryland Department of Transportation State Highway Administration (MDOT SHA) has issued an addendum for Contract No. AX7665D82. The Technical Proposal and Price Proposal Submittal Date for this contract is still scheduled for <u>October 30, 2018</u>.

The attention of prospective proposers is directed to the following revisions, additions and/or deletions to the Competitive Sealed Proposals Procurement– Request for Proposals.

COMPETITIVE SEALED PROPOSALS PROCUREMENT - REQUEST FOR PROPOSALS

<u>Page No.</u> Cover	Description REVISED statement to include Disadvantaged/Minority Business Enterprises.
W.	REVISED statement from "posting on eMaryland Marketplace" to "posting on ProjectWise."
35-59S	REVISED wage rates
65-79L	REVISED wage rates
97	ADDED Right-Of-Way Status.
113	REVISED title of Folder J from "ORE Documents and Forms" to "NEPA Environmental Document."
149-150	REVISED Stipend Agreement page numbers.
159-161	REVISED TC 3.05.15.1 Stormwater Management and Erosion and Sediment Review and Approval
	REVISED TC 3.05.15.3 MDE Plan Review Division Small Pond Review
	REVISED subsequent sheets for resulting text shifts
353-354	REVISED Payment of Administrative Costs incurred paragraph under TC 7.11.0.

All Holders of Contract Documents Page Two

Page No.

Description

456 ADDED Disadvantaged Business Enterprise goal.

NOTICE TO PROSPECTIVE PROPOSERS

The attention of the prospective proposers is directed to the following revisions, additions, and/or deletions to the Additional Information on ProjectWise:

REVISED AX7665D82 Additional Information Index at the following location on Projectwise:

pw:\\SHAVMPWX.shacadd.ad.mdot.mdstate:SHAEDMS01\Documents\DesignBuild\AX7665D82\AX7665D82 Additional Information Index 2018-06-26.docx

REVISED the title of Folder J to NEPA Environmental Document at the following location on ProjectWise:

pw:\\SHAVMPWX.shacadd.ad.mdot.mdstate:SHAEDMS01\Documents\Design-Build\AX7665D82\J. NEPA Environmental Document

ADDED NEPA Document to the following location on Projectwise:

pw:\\SHAVMPWX.shacadd.ad.mdot.mdstate:SHAEDMS01\Documents\Design-Build\AX7665D82\J. NEPA Environmental Document\AX766_18-07-042_TMDL Areawide Design-Build_Minor PCE_10.12.18.pdf

Questions relating to this Addendum No. 2 may be directed in writing to:

Eric E. Marabello, P.E. Director, Office of Highway Development Maryland Department of Transportation State Highway Administration e-mail address: AX766D TMDL@sha.state.md.us

During the Proposal Phase, only e-mailed inquiries will be accepted. No requests for additional information or clarification to any other Administration office, consultant, or employee will be considered.

Eric E. Marabello, P.E. Director, Office of Highway Development

This Addendum is issued to clarify, add to, delete from, correct and/or change the bid documents to the extent indicated and is hereby made part of the said bid documents on which the contract will be based. COMAR 21.05.02.08 requires that all addenda issued be acknowledged prior to submitting your bid. Failure to submit a completed addenda acknowledgement/ verification for all addenda may result in the bid being declared non-responsive.



Larry Hogan Governor Boyd K. Rutherford Lt. Governor

Pete K. Rahn Secretary

Gregory Slater Administrator

ADDENDUM

TO:	ALL HOLDERS OF CONTRACT DOCUMENTS
FROM:	DIRECTOR ERIC E. MARABELLO, P.E.
SUBJECT:	AX7665D82 ADDENDUM NO. 1
	F.A.P. NO. AC-STBG-000B(276)E
	AREAWIDE TOTAL MAXIMUM DAILY LOAD (TMDL) DESIGN-BUILD PROJECT
DATE:	OCTOBER 16, 2018

Please be advised that the Maryland Department of Transportation State Highway Administration (MDOT SHA) has issued an addendum for Contract No. AX7665D82. The Technical Proposal and Price Proposal Submittal Date for this contract is still scheduled for <u>October 30, 2018</u>.

The attention of prospective proposers is directed to the following revisions, additions and/or deletions to the Competitive Sealed Proposals Procurement– Request for Proposals.

COMPETITIVE SEALED PROPOSALS PROCUREMENT - REQUEST FOR PROPOSALS

Page No.	Description
Cover	ADDED FAP Number.
V	REVISED Table of Contents to add SP 100 Stream Restoration Site As-Built Certification
	REVISED Table of Contents to add SP 100 Outfall Stabilization Site As-Built Certification
19	ADDED DBE goal.
	ADDED professional services goal.
30	ADDED FAP Number.
92	REVISED TC Section reference to 2.14.02
98	REVISED TC Section reference to 2.14.02.01.7
103	REVISED TC-2.02 heading to "CONTENTS OF BID FORMS."
	REVISED TC-2.08 heading to "LATE BIDS, LATE WITHDRAWALS, AND LATE MODIFICATION."
128	REVISED text to state technical proposal is comprised of "four" parts.

Page No.	Description
133	REMOVED independent design quality manager from organizational chart requirements.
194	REMOVED the sentence, "A PDF copy of the HLR may be found in the Additional Information on Projectwise."
281	REVISED bullet numbering.
282	REVISED Terms and Conditions section number for "Cultural Resources."
	REVISED Terms and Conditions reference in note A.
	REVISED Terms and Conditions section number for "Unanticipated Discoveries of Archeological Resources During Design Build Activities."
283	REVISED Terms and Conditions section number for "Human Remains."
290	REVISED Terms and Conditions section number for As-Built from 3.05.27.2.2 to 3.05.26.2.2
354	REVISED TMDL Credit Design Initial Payment from 20 percent to 40 percent.
356A-C	ADDED Special Provision100 "STREAM RESTORATION SITE AS-BUILT CERTIFICATION"
356D-F	ADDED Special Provision100 "OUTFALL STABILIZATION SITE AS-BUILT CERTIFICATION"
441	ADDED FAP Number.
	REVISED delivery address.
442-479	ADDED FAP Number.
480	ADDED liquidated damages amount per calendar day.
	ADDED FAP Number.
481-483	ADDED FAP Number.

NOTICE TO PROSPECTIVE PROPOSERS

The attention of the prospective proposers is directed to the following revisions, additions, and/or deletions to the Additional Information on ProjectWise:

REVISED AX7665D82 Additional Information Index at the following location on Projectwise:

pw:\\SHAVMPWX.shacadd.ad.mdot.mdstate:SHAEDMS01\Documents\DesignBuild\AX7665D82\AX7665D82 Additional Information Index 2018-06-26.docx

All Holders of Contract Documents Page Three

REVISED site-specific information for existing Stormwater Management Facilities at the following location on ProjectWise:

pw:\\SHAVMPWX.shacadd.ad.mdot.mdstate:SHAEDMS01\Documents\DesignBuild\AX7665D82\C. Site Specific Information\2. Stormwater Management Facilities\SWM Sites.xls

The file updates the following Stormwater Management Facilities: 030265, 130007, 130011, 130013, 130033, 130045, 130078, 130347, 160058, 160727, 160728, 160731

REVISED site-specific information for existing Stormwater Management Facilities for Innovation at the following location on ProjectWise:

pw:\\SHAVMPWX.shacadd.ad.mdot.mdstate:SHAEDMS01\Documents\Design-Build\AX7665D82\C. Site Specific Information\3. Stormwater Management Facilities for Innovation\SWM_Sites for Innovation.xls

The file updates the following Stormwater Management Facilities: 130209

REVISED GIS file for existing outfall and Stormwater Management Facilities at the following location on projectwise:

pw:\\SHAVMPWX.shacadd.ad.mdot.mdstate:SHAEDMS01\Documents\Design-Build\AX7665D82\E. GIS Files\1. GIS Files\AX766_Sites.zip

The file removes the following Stormwater Management Facilities: 160149, 160152

The file removes the following outfalls:

0300133.001	1600954.004	0301241.001	0201445.001
0301373.001	0301343.004	1600483.001	0201415.001
0301374.001	0301343.005	1600770.001	0201422.001
0301375.001	0320853.001	1600210.001	0201691.001
0200575.001	0202737.001	1600887.001	0201787.001
0201293.001	1601762.001	0700071.006	
0201748.001	0201926.001	0700071.001	

ADDED GIS file for existing stormwater management facility drainage areas at the following location on projectwise:

pw:\\SHAVMPWX.shacadd.ad.mdot.mdstate:SHAEDMS01\Documents\Design-Build\AX7665D82\E. GIS Files\1. GIS Files\SWM Drainage Areas.zip

REMOVED Stream Restoration Site As-Built document from the following location on projectwise:

pw:\\SHAVMPWX.shacadd.ad.mdot.mdstate:SHAEDMS01\Documents\Design-Build\AX7665D82\K. TMDL Crediting Information\3. As-built Certification for Streams\100-100 StreamRestorationSite AsBuilt Cert.doc All Holders of Contract Documents Page Four

DELETED As-built Certification folder from the following location on projectwise:

pw:\\SHAVMPWX.shacadd.ad.mdot.mdstate:SHAEDMS01\Documents\Design-Build\AX7665D82\K. TMDL Crediting Information\3. As-built Certification for Streams

ADDED State-wide letter of authorization at the following location on Projecwise:

pw:\\SHAVMPWX.shacadd.ad.mdot.mdstate:SHAEDMS01\Documents\Design-Build\AX7665D82\M. Wetlands and Waterways Permitting Information\Signed MOD SLOA w new activities.pdf

ADDED wetland prohibitive signage detail at the following location on Projectwise:

pw:\\SHAVMPWX.shacadd.ad.mdot.mdstate:SHAEDMS01\Documents\Design-Build\AX7665D82\ M. Wetlands and Waterways Permitting Information\Wetland Prohibitive Signage Detail.pdf

Questions relating to this Addendum No. 1 may be directed in writing to:

Eric E. Marabello, P.E. Director, Office of Highway Development Maryland Department of Transportation State Highway Administration e-mail address: AX766D TMDL@sha.state.md.us

During the Proposal Phase, only e-mailed inquiries will be accepted. No requests for additional information or clarification to any other Administration office, consultant, or employee will be considered.

Eric E. Marabello, P.E. Director, Office of Highway Development

This Addendum is issued to clarify, add to, delete from, correct and/or change the bid documents to the extent indicated and is hereby made part of the said bid documents on which the contract will be based. COMAR 21.05.02.08 requires that all addenda issued be acknowledged prior to submitting your bid. Failure to submit a completed addenda acknowledgement/verification for all addenda may result in the bid being declared non-responsive.



STATE HIGHWAY ADMINISTRATION

Maryland Department of Transportation

State Highway Administration Baltimore, Maryland Request for Proposals

Contract No. AX7665D82 \triangle F.A.P No. AC-STBG-000B(276)E

Areawide TMDL

Areawide Total Maximum Daily Load (TMDL) Design-Build

Area Wide

Disadvantaged/Minority Business Enterprises are encouraged to respond to this Solicitation Notice.

2 The State Highway Administration will only be responsible for the completeness of documents, including all addenda, obtained directly from posting on Projectwise by the Administration.

Failure to complete and include the Addendum Receipt Verification Form may cause the bid to be irregular.

VENDOR I.D. NUMBER

S.H.A. USE ONLY

Addendum No. 2 10-19-2018

NOTICE TO CONTRACTORS

CARGO PREFERENCE ACT (CPA)

All Contractors and Sub-Contractors are to be in compliance with the requirements of 46 CFR Part 381 and incorporate by reference the recommended clauses in 46 CFR 381.7(a)-(b) - ("Contractor and Subcontractor Clauses. "Use of United States-flag vessels")

(a) Agreement Clauses. "Use of United States-flag vessels:

"(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

"(2) 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 (a)(1) of this section shall be furnished 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."

(b) Contractor and Subcontractor Clauses. "Use of United States-flag vessels: The contractor agrees-

"(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment. material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

"(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States. a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

"(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract".

Guidance documents for this requirement, including the 12/11/2015 policy memo, the 12/8/2015 legal opinion and a page of Q&A's are available on the CPA construction Program Guidance page:

https://www.fhwa.dot.gov/construction/cqit/cargo.cfm

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

CONTRACT NO. AX7665D82

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MARYLAND DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONS CONTRACTOR REGISTRATION REQUIREMENTS

CONTRACT NO. AX7665D82 1 of 1

CONTRACTOR REGISTRATION REQUIREMENTS

On all Federal-Aid funded contracts, the Administration is requiring that Contractors have an active Dun and Bradstreet Data Universal Numbering System (DUNS) and be registered in the Central Contract Registration (CCR) database prior to Award of Contract.

The Central Contractor Registration (CCR) is no longer the primary registrant database for the U.S. Federal Government.

The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from this page. User guides and webinars are available under the Help tab. Contractors can now register on-line at <u>https://www.sam.gov</u>.

MARYLAND DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONSCONTRACT NO. AX7665D82MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES(MdMUTCD) REQUIREMENTS1 of 1

NOTICE TO ALL HOLDERS OF THIS CONTRACT DOCUMENT

MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MdMUTCD) REQUIREMENTS

The 2011 Maryland Manual on Uniform Traffic Control Devices (MdMUTCD) is the legal State standard for traffic control devices. All traffic control devices (temporary or permanent) utilized on Administration projects shall be in conformance with the requirements provided in the 2011 Edition of the Administration's MdMUTCD for Streets and Highways.

MEDTMARYLAND DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONS

CONTRACT NO. AX7665D82 (NCHRP) REPORT 350 AND MASH IMPLEMENTATION SCHEDULE 1 of 2

NOTICE TO ALL HOLDERS OF THIS CONTRACT DOCUMENT

NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) **REPORT 350 AND THE MANUAL FOR ASSESSING SAFETY HARDWARE (MASH)** COMPLIANCE FOR DEVICES USED IN THE MAINTENANCE OF TRAFFIC AND **TRAFFIC CONTROL**

Except as otherwise specified in this section, all items for the temporary traffic control, including those listed under the following categories and permanent roadside hardware such as concrete barriers, W-beam barriers, cable barriers, end terminals, crash cushions, sign supports and all other breakaway hardware, shall be crashworthy in conformance with the appropriate test level as required by the safety crash testing and performance criteria published in the National Cooperative Highway Research Program (NCHRP) Report 350, "Recommended Procedures for the Safety Performance Evaluation of Highway Features" or the Manual for Assessing Safety Hardware (MASH). When conformance with NCHRP Report 350 or MASH is required, provide the Engineer with the manufacturers' certifications that the devices comply with the specified criteria. All temporary and permanent roadside devices shall comply with MASH 2016 criteria by the relevant dates in accordance with the Joint Implementation Agreement memorandum dated January 7, 2016 between the American Association of State Highway and Transportation Officials (AASHTO) and Federal Highway Administration (FHWA). This document may be downloaded from:

https://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/docs/memo_joint_imple mentation agmt.pdf

Unless specifically waived in the Contract Documents, only devices approved by the Administration may be used.

Category 1 Devices

These devices include cones, tubular markers, flexible delineator posts, and drums, none of which have any accessories or attachments, and are used for channelization and delineation.

Category 2 Devices

These devices include Type I, II, and III barricades, portable sign supports with signs, intrusion alarms, drums, vertical panels, and cones, any of which having accessories or attachments.

Category 3 Devices

- (a) Truck Mounted Attenuators (TMAs) and Trailer Truck Mounted Attenuators (TTMAs).
- (b) Temporary Barrier.
 - (1) Concrete Barrier.
 - (2) Traffic Barrier W Beam and Water Filled Barrier.
 - (3) Steel/Aluminum Barrier.
- (c) Temporary End Treatments.

ManyLand Department of Transportation

STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONS

CONTRACT NO. AX7665D82 (NCHRP) REPORT 350 AND MASH IMPLEMENTATION SCHEDULE 2 of 2

Category 4 Devices

These devices include area lighting supports, arrow panels, and portable variable message signs that may be portable or trailer-mounted.

Category 1, 2 and 3 devices shall always conform to NCHRP Report 350 or MASH Criteria. The AASHTO/FHWA Joint Implementation Agreement for MASH states that temporary work zone devices including category 4 devices manufactured after 12/31/2019 must be successfully tested to the 2016 edition of MASH before 12/31/2019 and relevant devices manufactured on or before 12/31/2019 and successfully tested to NCHRP 350, the 2009 edition of MASH, or otherwise authorized may continue to be used throughout their normal service life. Use of Category 4 devices shall comply with the provisions of Part 6 of the MD MUTCD.

MARYLAND DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONS

OCCUPYING WETLANDS FOR DESIGN-BUILD

CONTRACT NO. AX7665D82 Page 1 of 3

OCCUPYING WETLANDS/WATERWAYS FOR DESIGN-BUILD

The Contractor is hereby alerted to the importance of preserving waterways and wetland areas. The Administration, in conjunction with the various environmental agencies, has developed these Contract Documents so as to minimize or eliminate disturbance and damage to existing waterways and wetland areas. Any design changes must result in further avoidance and minimization of disturbance of wetlands and waterways. In order to accomplish this, the following must be rigidly adhered to:

- (a) Prior to performing any work on the project, the areas of wetland will be identified and marked by orange safety fence or as directed by the Engineer. All personnel of the Contractor or sub-contractors shall be alerted to these designated areas.
- (b) The Contractor or sub-contractors shall not impact any wetland or waterway, whether it be permanently or temporarily unless otherwise stipulated in the permit and approved as an authorized action by the appropriate regulatory agency. No fill shall be placed in these areas without an appropriate permit. No storage of equipment or materials will be allowed in wetlands.
- (c) The Contractor or sub-contractor shall not impact a wetland or waterway that is not covered by an existing wetland permit.
- (d) If the Contractor impacts any wetland or waterway for which they do not have a wetland permit, they shall be responsible for contacting the State Highway Administration's Environmental Programs Division prior to restoring the wetland areas and mitigating the wetland impacts to the full satisfaction of the environment regulatory agencies, which could include monetary compensation.
- (e) The cost of restoration and mitigation of the impacted areas shall be at no additional cost to the Administration.
- (f) The Design-Builder will prepare permit modifications at the conclusion design and at the conclusion of construction. The modification will be based on surveyed as-built plans and will include standard 8.5"x 11.0" plates and a revised Joint State/Federal Nontidal Wetlands and Waterways Permit application.
- (g) This Contract will include the oversight of an Environmental Monitor supplied by the Administration. His duties will be to make sure the Contractor abides by all conditions in the environmental permits. He will also assist the Contractor in developing ideas to minimize impacts to the wetlands. The Contractor will still be responsible for all violations occuring as stated above.

The importance of not abusing waterways and wetland areas cannot be overemphasized. It is possible that abuse of waterways and wetland areas could jeopardize the operation of the total Contract and could be cause for a shut-down. If a shut-down occurs because of the Contractor's failure to secure the required permits(i.e. the Contractor's method of work includes impacts not approved by previously acquired permits), the Contractor's negligence or operations, all costs and damages to the Contractor and to the State will be at the Contractor's expense. Non-compliance with these requirements will not be considered for an extension of Contract time.

MARYLAND DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONS

OCCUPYING WETLANDS FOR DESIGN-BUILD

CONTRACT NO. AX7665D82 Page 2 of 3

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAINS

- 1. NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.
- 2. PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.
- 3. DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE. IF ADDITIONAL BACKFILL IS REQUIRED, USE CLEAN MATERIALS FREE OF WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE.
- 4. PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.
- 5. REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, OR WATERWAYS, OR PERMANENT MODIFICATION OF THE 100-YEAR FLOODPLAIN IN EXCESS OF THAT LOST UNDER THE ORIGINALLY AUTHORIZED STRUCTURE OR FILL.
- 6. RECTIFY ANY NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, OR 100-YEAR FLOODPLAIN TEMPORARILY IMPACTED BY ANY CONSTRUCTION.
- 7. ALL STABILIZATION IN THE NONTIDAL WETLAND AND NONTIDAL WETLAND BUFFER SHALL CONSIST OF THE FOLLOWING SPECIES:

ANNUAL RYEGRASS (LOLIUM MULTIFLORUM), MILLET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (UNIOLA SP.)AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATIONOF THE SITE WHILE ALSO ALLOWING FOR THE

VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE, BUT MUST BE APPROVED BY THE NONTIDAL WETLANDS AND WATERWAYS DIVISION. KENTUCKY 31 FESCUE SHALL NOT BE UTILIZED IN WETLAND

MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONS

OCCUPYING WETLANDS FOR DESIGN-BUILD

CONTRACT NO. AX7665D82 Page 3 of 3

OR BUFFER AREAS. THE AREA SHOULD BE SEEDED AND MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.

- 8. AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST CONSTRUCTION GRADES AND ELEVATIONS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS.
- 9. TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM:
 - A. USE I WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE DURING ANY YEAR.
 - B. USE III WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD OCTOBER 1 THORUGH APRIL 30, INCLUSIVE, DURING ANY YEAR.
 - C. USE IV WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH MAY 31, INCLUSIVE, DURING ANY YEAR.
- 10. STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY.
- 11. CULVERTS SHALL BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.

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 designbuild 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-thejob 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.

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

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of

employees by means of meetings, employee handbooks, or other appropriate means.

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

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

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

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

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and nonminority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work

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

III. NONSEGREGATED FACILITIES

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

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

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

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

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

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for

determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

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

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that

the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

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 workweek 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:

 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 Federalaid 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:

 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.

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AFFIRMATIVE ACTION REQUIREMENTS UTILIZATION OF DISADVANTAGED BUSINESS ENTERPRISES FOR FEDERAL-AID CONTRACTS

CONTRACT GOALS

I FOR THE PURPOSE OF THIS CONTRACT, A GOAL OF <u>Twenty (20)</u> PERCENT HAS BEEN ESTABLISHED FOR SOCIALLY AND ECONOMICALLY DISADVANTAGED BUSINESSES THAT ARE OWNED AND CONTROLLED BY – THOSE INDIVIDUALS WHO ARE BLACK AMERICANS, HISPANIC AMERICANS, ASIAN-PACIFIC AMERICANS, SUBCONTINENT ASIAN AMERICANS, NATIVE AMERICANS, OR WOMEN PURSUANT TO THE MARYLAND DEPARTMENT OF TRANSPORTATION (MDOT) MINORITY BUSINESS ENTERPRISE PROGRAM:

The Design-Builder's good faith efforts to achieve the overall contract goal shall include a good faith effort to achieve DBE participation in professional services (including design, supplemental geotechnical investigations, surveying and other preliminary engineering; quality control as defined in the Contract; environmental compliance activities; utility coordination; permitting; and public information) for this contract of no less than <u>Five (5)</u> percent of the portion of the contract price allocable to professional services.

It is the policy of the Maryland Department of Transportation that disadvantaged business enterprises as defined in 49 CFR Part 26 and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) shall have an equal opportunity to participate in the performance of the contracts financed in whole or in part with Federal funds under these agreements. Consequently, the disadvantaged business enterprise requirements of 49 CFR Part 26 and SAFETEA-LU apply to this agreement.

The bidder agrees to ensure that disadvantaged business enterprises as defined in 49 CFR Part 26 and SAFETEA-LU have an equal opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds provided under this agreement. In this regard, all bidders shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 and SAFETEA-LU to ensure that disadvantaged business enterprises have an equal opportunity to compete for and perform on Federally funded contracts.

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

A. GENERAL

For the purpose of these requirements, the following terms as defined below shall apply:

Administration Representative – A DBE/MBE Officer or employee of an Administration who enforces the laws and regulations pertaining to disadvantaged and minority business enterprise and contract compliance.

MARYLAND DEPARTMENT OF TRANSPORTATION.

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Affirmative Actions – Specific steps taken to eliminate discrimination and its effects, to ensure nondiscriminatory results and practices in the future, and to involve disadvantaged and minority business enterprises fully in contracts and programs.

Business Enterprises – Any legal entity which is organized in any form other than as a joint venture (e.g., sole proprietorship, partnership, corporation, etc.) to engage in lawful commercial transactions.

Certified Business – A business which by order of the Chair/MBE Advisory Council or his/hers designee, has been certified as a bona fide DBE/MBE. MDOT certification does not equate to a pre-qualification status.

DBE – **Disadvantaged Business Enterprise** – Reference 49 CFR, Part 26, Subpart A) a small business concern: (1) which is at least 51 percent owned by one or more socially and economically disadvantaged individuals. Where stock ownership is involved, the disadvantaged owner(s) shall own at least 51 percent of each class of voting stock and at least 51 percent of the aggregate of all classes of stock that have been issued (also applies to publicly owned businesses); and (2) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who have ownership. In this specification the terms MBE and DBE have the same meaning.

DBE/MBE Directory – A compilation of businesses certified by MDOT as disadvantaged, minority, or socially and economically disadvantaged businesses. The directory will be published annually with quarterly supplements. It will also be provided in automated format and on the Internet to be updated as changes are made.

DBE/MBE Participation Packet – The documents submitted by the bidder or proposer pursuant to the appropriate special bid provisions. The DBE/MBE Participation Packet consists of the Certified DBE Utilization and Fair Solicitation Affidavit and the DBE Participation Schedule, both of which must be submitted with your bid or initial price proposal. The DBE Participation Packet also includes the following documents, which shall be submitted after bids or proposals are opened: Outreach Efforts Compliance Statement (MDOT-OP-018-2), DBE Subcontractor Project Participation Affidavit (MDOT-OP-019-2), MDOT Joint Venture Disclosure Affidavit (D-EEO-006), and Minority Contractor Unavailability Certificate (OOC46).

DBE/MBE Program – A program developed by MDOT to implement the requirements of Title 14, Subtitle 3 of the State Finance and Procurement Article, Annotated Code of Maryland; Title 10, Subtitle 3 of the State Finance and Procurement Article of the Annotated Code of Maryland for Leases of State-Owned Property; and 49 CFR, Part 26, Subparts A and C for all Federal Department of Transportation Financial Assistance Programs.

Director, Office of Equal Opportunity – The individual designated for the Administration's overall MBE compliance.

Joint Venture – An association of a DBE/MBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills, and knowledge, and in which the DBE/MBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

MARYLAND DEPARTMENT OF TRANSPORTATION

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CONTRACT PROVISIONS

DBE FOR FEDERAL-AID CONTRACTS

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Small Business Administration (SBA) 8(a) Certification – The SBA 8(a) Certification Program is a Federal Program which establishes firms as disadvantaged and eligible for participation in the Federal SBA Program.

Socially and Economically Disadvantaged Individual Pursuant to 49 CFR, Part 26 – Those individuals who are citizens of the United States (or lawfully admitted permanent residents). For convenience, these individuals and groups are referred to as "minorities" in this document and who are:

- **1.** Found by the MDOT to be socially and economically disadvantaged on a case-by-case basis;
- **2.** Any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged.
 - **a.** "Black Americans," which includes persons having origins in any of the Black racial groups of Africa;
 - **b.** "Hispanic Americans," which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
 - **c.** "Native Americans," which includes persons who are American Indian, Eskimos, Aleuts, or Native Hawaiians;
 - **d.** "Asian-Pacific Americans," which included persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kirbati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;
 - e. "Subcontinent Asian American," which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
 - **f.** Women;
- **3.** Only those persons whose personal net worth does not exceed \$750,000 may be found to be economically disadvantaged.

B. DBE/MBE and Good Faith Effort Requirements

1. This contract includes a DBE participation goal for subcontracting and/or procurement of materials and/or services. Bidders (or offerors) must make a good faith effort to meet the DBE participation goal **before bids or proposals are due**, including outreach efforts. A bid or initial proposal must include both a completed and executed Certified DBE Utilization and Fair Solicitation Affidavit and DBE Participation Schedule. The failure of a bidder to complete and submit these documents shall result in a determination that the bid is not responsive. The failure of an offeror to complete and submit these documents shall result in a determination that the proposal result in a determination that the proposal is not susceptible of being selected for award.

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DBE FOR FEDERAL-AID CONTRACTS

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- 2. In making a good faith effort to achieve the DBE goal, prior to completing the Certified DBE Utilization and Fair Solicitation Affidavit and the DBE Participation Schedule and prior to submitting a bid or initial proposal the bidders (or offerors) including those bidders or offerors that are certified DBEs must:
 - **a.** Identify specific work categories within the scope of the procurement appropriate for subcontracting and/or procurement of materials and/or services;
 - **b.** Solicit DBEs in writing at least 10 days before bids or initial proposals are due, describing the identified work categories and providing instructions on how to bid on the subcontracts and/or procurement of materials and/or services;
 - **c.** Attempt to make personal contact with the DBEs solicited and to document these attempts;
 - d. Assist DBEs to fulfill, or to seek waiver of, bonding requirements; and
 - e. Attend prebid or other meetings the procurement agency schedules to publicize contracting opportunities to DBEs.
- **3.** All firms bidding on a Federal-Aid Contract shall submit the name and address of all subcontractors, service providers and suppliers that submitted quotes on the Contract. All subcontractors, service providers and suppliers shall complete and submit the form entitled Contractor Information, to the Administration.
- 4. The bidder shall seek commitments from disadvantaged business enterprises by subcontracting and/or procurement of materials and/or services, the combined value of which equals or exceeds the appropriate percent (goal) of the total value of the prime contract. A bidder may count toward its DBE goals expenditures for materials and supplies obtained from DBE regular dealers and/or manufacturers provided that the DBEs assume the actual and contractual responsibility for the provision of the materials and supplies. The bidder may count its entire expenditure to a DBE manufacturer (i.e., a supplier that produces goods from raw materials or substantially alters them before resale). The bidder may count sixty (60) percent of its expenditures to a DBE regular dealer that is not a manufacturer, provided that the DBE supplier performs a commercially useful function in the supply process. The apparent low bidder shall submit to the Administration, within ten (10) business days after notification that it is the apparent low bidder, an acceptable Affirmative Action Plan for the utilization of Disadvantaged Business Enterprises in this Contract. The Contract will not be awarded without the Bidder's AAP being approved by the Administration.

The Affirmative Action Plan shall include as a minimum:

- **a.** The name of an employee designated as the bidder's liaison officer for minority affairs.
- **b.** A complete DBE Subcontractor Project Participation Affidavit (MDOT-OP-019-2), using contractors whose names appear in the DBE/MBE directory or who are otherwise certified by MDOT as being a disadvantaged business enterprise. Except as permitted by law and approved by the Administration, this affidavit shall include all DBE firms identified on the DBE Participation Schedule with a percentage of participation that meets or exceeds the percentage of participation indicated in the bid or initial proposal.

MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONS DBE FOR FEDERAL-AID CONTRACTS

CONTRACT NO. AX7665D82 5 of 10

- c. A completed Outreach Efforts Compliance Statement (MDOT-OP 018-2).
- 5. When a bidder intends to attain the appropriate goal for disadvantaged business enterprise participation by use of a joint venture, the bidder shall submit a Joint Venture Disclosure Affidavit (Form D-EEO-006-A) showing the extent of disadvantaged business participation. If a bidder intends to use a joint venture as a subcontractor to meet its goal, the affidavit shall be submitted through the bidder by the proposed subcontractor and be signed by all parties. A DBE, even in a joint venture arrangement shall be certified as a DBE by MDOT prior to being included in the Affirmative Action Plan.
- 6. Where the proposed DBE participation does not meet the DBE contract goals, sufficient evidence to demonstrate that the bidder has taken all necessary and reasonable steps to make a good faith effort to meet these goals shall be required.

7. Determination of Bid Responsiveness for Federal-Aid Contracts

If the bidder is unable to secure from DBEs by subcontracting and/or by procurement of materials and/or services, commitments which at least equal the appropriate percent (goal) of the values of the prime Contract at the time of bid, he shall request, in writing, a waiver of the unmet portion of the goal. This request must be initiated by checking the appropriate box on the Certified DBE Utilization and Fair Solicitation Affidavit submitted with the bid or initial proposal.

The waiver may be granted by the Administrator. To obtain approval of a waiver, the bidder shall submit the following information:

- **a.** A detailed statement of efforts made prior to bid to contact and negotiate with DBEs including: (i) the dates, names, addresses, and telephone numbers of DBEs who were contacted; (ii) a description of the information provided to DBEs requesting the plans, specifications, and anticipated time schedule for portions of the work to be performed and (iii) a detailed statement of the reasons why additional prospective agreements with DBEs were not reached;
- **b.** A detailed statement of the efforts made to select portions of the work proposed to be performed by DBEs in order to increase the likelihood of achieving the stated goals;
- **c.** For each DBE that the Contractor considers not qualified, but from which a bid has been received, a detailed statement of the reasons for the bidder's conclusion; and
- **d.** For each DBE contacted but unavailable, (i) a Minority Contractor Unavailability Certificate (Form OOC46) signed by the disadvantaged business enterprise, or (ii) a statement from the bidder shall be submitted that states that the DBE refused to sign the Certificate.
- 8. Guidance concerning good faith efforts. The following is a list of the types of actions and factors that will be used to determine the bidder's or offeror's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

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CONTRACT PROVISIONS DBE FOR FEDERAL-AID CONTRACTS

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- (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.
- (2) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the bidder or offeror might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) (a) Negotiating in good faith with interested DBEs. It is the bidder's or offeror's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation.

(b) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders and offerors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

- (5) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal.
- (6) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
- (7) Making efforts to assist interested DBEs in obtaining necessary equipment,

CONTRACT PROVISIONS DBE FOR FEDERAL-AID CONTRACTS

supplies, materials, or related assistance or services.

- (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
- (9) In determining whether a bidder or offeror has made good faith efforts, you may take into account the performance of other bidders or offerors in meeting the contract goal. For example, when the apparent successful bidder or offeror fails to meet the contract goal, but others meet it, the Administration may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder or offeror fails to meet the goal. If the apparent successful bidder or offeror fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders or offerors, the Administration may view this, in conjunction with other factors, as evidence of the apparent successful bidder or offeror having made good faith efforts.

9. Bidder Use of DBE Special Services

The bidder shall consider, whenever possible, utilizing the services of minority-owned banks. Most minority banks are full-service corporations that can provide an array of financial services such as Treasury and Tax Loan fund accounts, time and demand deposit accounts, payroll services, and if needed, organization investment counseling.

10. Bidder Records

The bidder shall maintain records showing actions which have been taken to comply with procedures set forth herein.

11. Bidder Cooperation

The bidder shall cooperate with the Administration Representative in any reviews of the Contractor's procedures and practices with respect to DBEs which the Administration Representative may from time to time conduct.

12. Bidder DBE Modifications

During the life of the Contract, all plans to modify the approved DBE participation program will require the approval of the Administrator or his authorized representative. This shall include any changes to the items of work to be sublet or materials and services to be obtained which differ for those in the original DBE participation program. Any such request for revisions shall be directed to the appropriate District Engineer for their disposition.

C. RECORDS AND REPORTS

1. The Contractor shall keep such records as are necessary to determine compliance with its Minority Business Enterprise utilization obligations. The records kept by the Contractor shall be designed to indicate:

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CONTRACT PROVISIONS DBE FOR FEDERAL-AID CONTRACTS

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- **a.** The name of disadvantaged and non-disadvantaged subcontractors and suppliers, the type of work materials or services being performed on or incorporated in this project, and the monetary value of such work materials or services.
- **b.** Documentation of all correspondence, contacts, telephone calls, etc., to obtain the services of disadvantaged business enterprises on this project.
- c. The progress and efforts made in seeking out disadvantaged contractor organizations and individual disadvantaged contractors for work on this project.
- **2.** Information required to be submitted for Federally Assisted contracts in accordance with 49 CFR Part 26:
 - **a.** All bidders (not only the apparent successful bidder) shall provide the following information:
 - (1) The age of the bidding firm; and
 - (2) The annual gross receipts of the bidding firm.
 - **b.** All bidders (not only the apparent successful bidder) shall provide the following information for each firm quoting or considered as subcontractors:
 - (1) The name of firm; and
 - (2) The address of firm.
 - **c.** The Administration will contact each of the firms quoting or considered as subcontractors to obtain:
 - (1) The age of the firm; and
 - (2) The annual gross receipts of the firm

If this information already has been gathered by the Administration on a firm and it is current, it will not be requested.

- **3.** The Contractor shall submit reports on a monthly basis of those contracts and other business transactions executed with disadvantaged business enterprises with respect to the records referred to in Subparagraph 1.a above, in such form, manner, and content as prescribed by the Administration. The reports shall be due monthly on the 15th calendar day of each month. If the Contractor cannot submit their report on time, they shall notify the Administration's Representative and request additional time to submit the report. Failure of the Contractor to report in a timely manner may result in a finding of noncompliance. Additional reports may be required by the Administration upon written request.
- **4.** To ensure compliance with the certified DBE contract participation goals, the Contractor shall:
 - **a.** Submit monthly, a report listing unpaid invoices, over 30 days, from all certified DBE subcontractors and the reason payment has not been made;

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CONTRACT PROVISIONS

DBE FOR FEDERAL-AID CONTRACTS

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- **b.** Include in its agreement with certified DBE subcontractors a requirement that the DBE subcontractors are to submit monthly to the Administration, a report identifying the prime Contractor and listing the following:
 - 1. Payment received from the Contractor in the preceding 30 days; and
 - 2. Invoices for which the subcontractor has not been paid.
- **5.** All such records shall be retained for a period of three years following acceptance of final payment and shall be available for inspection by the U.S. Department of Transportation, the Maryland Department of Transportation, and the Administration.

D. ADMINISTRATIVE PROCEDURES FOR ENFORCEMENT

- 1. Whenever the Administration believes the prime Contractor or any subcontractor may not be operating in compliance with the terms of these provisions, the Administration Representative will conduct an investigation. If the Administration Representative finds the prime Contractor or any subcontractor not in compliance with these provisions, he will make a report of non-compliance and notify such Contractor in writing of the steps that will, in the judgment of the Administration, bring the Contractor into compliance. If the Contractor fails or refuses to comply fully with such steps, the Administration Representative will make a final report of noncompliance to the Administrator, who may direct the imposition of one or more of the sanctions listed below:
 - **a.** Suspension of work on a project, pending correction;
 - **b.** Withholding payment or a percentage thereof, pending correction;
 - **c.** Referral of DBE/MBE to MDOT Office of MBE for review for decertification or minority business fraud investigation;
 - **d.** Referral to MDOT Office of MBE for review/referral to the Attorney General's Office for review for initiation of debarment;
 - e. Referral to the Attorney General's Office for review for debarment or for criminal prosecution through the MDOT Office of General Counsel; or
 - **f.** Any other action as appropriate.

The Administrator will determine which sanction(s) should be imposed in order to promote the purpose of the MDOT DBE/MBE Program.

- **2.** If the documents used to determine the status of a DBE contain false, misleading, or misrepresenting information, the matter may be referred to the MDOT Office of MBE for appropriate action.
- **3.** Loss of DBE Certification
 - **a.** When a prime Contractor has made a commitment to use a DBE who has lost its certification but the subcontract has not been executed prior to the notice of loss of certification, the prime Contractor is required to obtain an eligible, certified DBE for the contract or demonstrate to MDOT that it has made a good faith effort to do so.

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CONTRACT PROVISIONS

DBE FOR FEDERAL-AID CONTRACTS

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- **b.** When a prime Contractor has executed a contract with a DBE subcontractor before the notice of loss of certification, the prime Contractor may continue to use the firm on the contract and may continue to receive credit towards its DBE goal, i.e., contract goal, for the work of that subcontractor.
- **c.** The work carried out by a DBE Prime Contractor would be counted by MDOT up to the loss of certification. The work performed after the loss of certification would not be considered DBE participation.
- **d.** When a DBE subcontractor has lost its certification, MDOT may not continue to count the DBE participation which takes place after the loss of certification as DBE work when counting participation towards the overall goal of the modal administration or the Department.
- **e.** If a DBEs loss of certification is the result of exceeding the size standards while performing on a contract, the DBE participation may be counted for both the contract goal and the overall goal.

E. SUBCONTRACTING.

Subcontracting by the Prime Contractor. Form B Request for Approval of Subcontractor shall be used by the Prime Contractor to request approval of a Subcontractor and also to ensure that a formal Subcontract has been or will be written and kept on file by the Prime Contractor. Completion and submittal of the form by the Prime Contractor acknowledges that the Administration's Contracting Officer may require the submission of the written Subcontract for review by the Administration and/or FHWA.

Lower Tier Subcontracting by an Approved Subcontractor. Form B Subcontractor's Request for Approval of Lower Tier Subcontractor shall be used by an Approved Subcontractor to request approval of a Lower Tier Subcontractor and also to ensure that a formal Subcontract has been or will be written and kept on file by the Subcontractor. Completion and submittal of the form by the Subcontractor acknowledges that the Administration's Contracting Officer may require the submission of the written Subcontract for review by the Administration and/or FHWA.

Form Acquisitions. Maryland State Highway Administration Form B may be acquired through the Administration's Contracts Award Team or District Office. All questions should be directed to the Office of Construction, Contracts Award Team.

It is the Administration's intention to randomly select during each calendar quarter a representative sample of written Subcontracts for review. This review will be conducted by the Office of Construction's Contracts Award Team.

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CONTRACT PROVISIONS MBE/DBE COMPLIANCE FIELD MEETING

CONTRACT NO. AX7665D82 1 of 1

MBE/DBE COMPLIANCE FIELD MEETING

A MBE/DBE compliance Field Meeting will be conducted to review the responsibilities of the Administration and the Contractor's personnel relative to MBE/DBE Compliance and documentation. The meeting will be held within two weeks after starting work on the project.

The Construction Project Engineer, who will notify the following of the date, time and location, will arrange the meeting. At least one week advanced notice will be required.

(a) Administrative Representatives.

- (1) Director, Office of Equal Opportunity or Designee
- (2) District Equal Opportunity Officer
- (3) Regional Constructional Engineer
- (4) Construction Project Engineer
- (5) Construction Inspection Division Inspector

(b) Contract Representatives.

- (1) Superintendent Prime Contractor
- (2) Equal Opportunity Officer Prime Contractor
- (3) Owner/Superintendent/Foreman MBE/ DBE Subcontractor

The Construction Project Engineer and Equal Opportunity Representative will jointly conduct the meeting. The Contractor shall notify the appropriate subcontractors and ensure their attendance.

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CONTRACT PROVISIONS TRAFFIC CONTROL PLAN CERTIFICATION



1 of 1

TRAFFIC CONTROL PLAN CERTIFICATION FOR DESIGN-BUILD

PRIOR TO THE COMMENCEMENT OF WORK ON THIS PROJECT, THE SUCCESSFUL BIDDER WILL BE REQUIRED TO COMPLETE A TRAFFIC CONTROL PLAN CERTIFICATION, CONTAINING THE INFORMATION SHOWN BELOW. THE CERTIFICATION FORM WILL BE PROVIDED TO THE SUCCESSFUL BIDDER UPON AWARD OF THE CONTRACT.

The Administration's Traffic Control Plan (TCP) has been reviewed and the following course of action shall be followed:

Option 1 See Note Below

The TCP is accepted and shall be used on this project.

Option 2 See Note Below

The TCP is accepted; however, revisions and/or additions shall be submitted for approval in conformance with the Administration's Specifications 104.01.

Option 3

The TCP is not accepted and revision shall be submitted for approval in accordance with the Administration's Specifications 104.01.

It is understood that the effective implementation of the approved TCP is the responsibility of the Contractor. Minor modifications may be made by the Traffic Manager if field conditions warrant and prior concurrence is obtained from the Engineer. Significant changes to the TCP will be submitted to the Engineer in writing, for approval, in conformance with the Administration's Specifications 104.01.

(DATE)

(SIGNATURE)

(PRINT SIGNATURE)

(TITLE)

Note: Option 1 and 2 shall not be used on this project. This is a Design-Build project and the Design-Build Team must prepare a TCP based on the requirements in the Administrations Specifications 104.01.

CONTRACT PROVISIONS PREVAILING WAGE INSTRUCTIONS

CONTRACT NO. AX7665D82 1 of 4

PREVAILING WAGE INSTRUCTIONS FOR THE CONTRACTOR

PAYROLLS.

Non-Federally Funded Contracts. The Division of Labor and Industry, Prevailing Wage Unit is requiring that all certified payroll records be submitted electronically. For instructions on how to register and submit go online to <u>www.dllr.state.md.us/prevwage</u> and follow the instructions for registering. The regulation addressing this change can be found at COMAR 21.11.11.02. For Non-Federally funded projects, which include prevailing wage rates, the prime Contractor and each subcontractor, shall submit the certified payroll electronically and provide one hard copy to the Project Engineer. All wages shall be paid in conformance with the State Finance and Procurement Article, Section 17-201-17-226 of the Annotated Code of Maryland and the Fair Labor Standards Amendments of 1974 (P.L. 93259). If the award amount of a Non-Federally funded job is less than \$500,000, the project will be exempt from prevailing wage requirements.

A review has been made of the wage conditions in the locality and, based on the information available, the wage rates and fringe payments listed are determined by the Commissioner of the Department of Labor and Industry to be prevailing for the Contract for the described classes of labor in conformance with the law. It shall be the responsibility of the Contractor to fully comply with the law and to contact the Office of the Commissioner of Labor and Industry for interpretation of the provisions of the law.

Federally Funded Contracts. For Federally funded projects, the prime Contractor and each subcontractor shall submit one copy of the certified payroll to the Project Engineer.

General Requirements for Federally and Non-Federally Funded Contracts. All payrolls are subject to the following requirements:

- (a) All payrolls shall be numbered, beginning at No. 1, and consecutively numbered through the end of the Contract.
- (b) Contract and FAP numbers shall be shown on all payrolls (as applicable).
- (c) All payroll submissions shall include:
 - Federally Funded employees' full name, classification, and Individual Identifying Number (IIN) e.g. (last four digits of social security number). Refer to FHWA 1273 (IV),(3),(b)1) for further requirements related to weekly payrolls.
 - (2) Non-Federally Funded employees' full name, classification, address and social security number.

MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONS PREVAILING WAGE INSTRUCTIONS

CONTRACT NO. AX7665D82 2 of 4

- (d) All payrolls shall show the employee's basic hourly wage rate, overtime rate (if applicable), and the number of hours worked (tabulated both daily and weekly).
- (e) When fringe benefits are required, indicate separately the amount of employer contributions to fringe benefit funds and/or programs. The fringe benefits shall be individually identified, but may be tabulated on a separate sheet. When required fringe benefits are paid in cash, add the required fringe benefit amount to the basic hourly rate to obtain the total prevailing wage rate for the employee.
- (f) The employee's net pay and the itemized deductions shall be included in all payrolls.
- (g) A Contractor may make deductions that are required by law or required by a collective bargaining agreement (between the Contractor and a bona fide labor organization). Deductions are also permitted if they are identified in a written agreement between the employee and employer that was made at the beginning of employment, provided that the Contractor presents the agreement to the Administration before the employee begins working on the Contract. Each payroll shall also include the U.S. Department of Labor and Hour Public Contracts Division Statement of Compliance Form WH-347 (or its equivalent), signed by an appropriate official of the Contractor/subcontractor. The Contractor's name, address, and telephone number shall also be shown.
- (h) On Non-Federally funded projects, all apprentices shall be registered with the Maryland Apprenticeship and Training Council.
- (i) Contractors employing a classification of worker for which a wage rate was not included on the original wage decision, shall submit to either the Wage and Hour Team (Federally Funded) or Department of Labor and Licensing (DLLR), (Non-Federally Funded), a request for an additional classification and rate prior to the employee's employment at the project.
- (j) Payrolls for Non-Federally Funded projects shall be submitted within 14 calendar days after the end of each payroll period.
- (k) Payrolls for Federally Funded projects shall be submitted within 7 calendar days after the end of each payroll period.
- (1) Contractors and Subcontractors are required to maintain complete social security numbers and home addresses for employees. Government agencies are entitled to request or review all relevant payroll information, including social security numbers and addresses of employees. Contractors and Subcontractors are required to provide such information upon request.

CONTRACT PROVISIONS PREVAILING WAGE INSTRUCTIONS

CONTRACT NO. AX7665D82 3 of 4

OVERTIME.

Non-Federally Funded Contracts. Overtime rates shall be paid by the prime Contractors and subcontractors under their Contracts and agreements with their employees, which in no event shall be less than time and a half the prevailing hourly rate of wages for all hours worked in excess of ten hours in any one calendar day or forty hours in any one calendar week and work performed on Sundays and legal holidays.

Fringe benefits shall be paid for all hours worked, including the overtime hours. However, the fringe benefit amounts may be excluded from the half time premium due as overtime compensation.

Federally Funded Contracts. Overtime rates shall be paid as specified in Form FHWA 1273. Fringe benefits shall be paid for all hours worked, including the overtime hours. However, the fringe benefit amounts may be excluded from the half time premium due as overtime compensation.

PENALTIES.

Non-Federally Funded Contracts. When the Contractor is delinquent in submitting payroll records, processing of partial payment estimates will be held in abeyance, pending receipt of the records. The Contractor shall be liable to the Administration for liquidated damages in the amount of \$10.00 for each calendar day the records are late.

The Contractor shall be liable to the Administration for liquidated damages in the amount of \$20.00 for each day that an employee is paid less than the prevailing wage.

Federally Funded Contracts. When the Contractor is delinquent in submitting payroll records, processing of partial payment estimates will be held in abeyance pending receipt of the records.

ADDITIONAL CLASSIFICATIONS.

Federally Funded Contracts. If the wage determination lacks a necessary classification the Prime Contractor is responsible to submit the request for the additional classification, with a proposed rate, to the State Highway Administration's Wage and Hour Team. The request is to include a copy of the projects wage determination.

Non-Federally Funded Contracts. If the wage determination lacks a necessary classification the Prime Contractor is responsible to submit the request for the additional classification, with a proposed rate, to the Department of Labor and Licensing (DLLR).

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CONTRACT PROVISIONS PREVAILING WAGE INSTRUCTIONS

CONTRACT NO. AX7665D82 4 of 4

INQUIRIES.

Request for information or questions shall be addressed to:

Maryland State Highway Administration Office of Construction Wage and Hour Team 7450 Traffic Drive, Building #4 Hanover, MD 21076 or Email: wageandhourteam@sha.state.md.us General Decision Number: MD180061 09/28/2018 MD61

State: Maryland

Construction Type: Highway

County: Anne Arundel County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Num	nber	Publication	Date
0		09/28/2018	

SUMD2018-002 07/20/2018

Ra	ates	Fringes
BRICKLAYER\$ 2	29.17	17.52
CARPENTER Carpenter\$ 2 Shoring Scaffold Builder\$ 2		14.70 14.70
CEMENT MASON\$ 2	27.15	9.64
ELECTRICIAN\$	30.00	7.25
IRONWORKER, REINFORCING\$	30.70	20.66
IRONWORKER, STRUCTURAL\$ 2	28.70	20.66
LABORER Air Tool Operator\$ 1 Asphalt Paver\$ 1		4.81 4.81

Asphalt Raker\$ 19.07	5.98
Blaster-Dynamite\$ 18.82	4.81
Burner\$ 18.82	4.81
Common\$ 19.07	5.98
Concrete Puddler\$ 19.07	5.98
Concrete Surfacer\$ 18.82	4.81
Concrete Tender	5.98
Concrete Vibrator\$ 19.07	5.98
Density Gauge\$ 19.07	5.98
Fireproofer-Mixer\$ 19.07	5.98
Flagger\$ 19.07	5.98
Grade Checker\$ 19.07	5.98
Hand Roller\$ 19.07	5.98
Hazardous Material Handler\$ 18.82	4.81
Jackhammer\$ 19.07	5.98
Landscaping\$ 19.07	5.98
Layout\$ 19.07	5.98
Luteman\$ 19.07	5.98
Mason Tender\$ 18.82	4.81
Mortar Mixer\$ 19.07	5.98
Pipelayer\$ 18.82	4.81
Plasterer-Handler\$ 19.07	5.98
Scaffold Builder\$ 18.82	4.81
Tamper\$ 19.07	5.98
MARINE BOAT OPERATOR\$ 26.21	
MILLWRIGHT\$ 30.06	15.30
PAINTER: Bridge\$ 36.13	11.49
PILEDRIVERMAN\$ 33.93	10.98
POWER EQUIPMENT OPERATOR	
Asphalt Distributior\$ 23.08	6.82
Backhoe\$ 27.75	11.90
Boom Truck\$ 22.50	6.43
Broom/Sweeper\$ 26.85	11.90
Bulldozer\$ 27.75	11.90
Crane\$ 33.50	15.35+a
Drill-Rig\$ 27.75	11.90
Excavator\$ 27.75	11.90+a
Forklift\$ 26.95	
Gradall\$ 28.75	11.90+a
Grader\$ 28.75	11.90+a
Guard Rail Post Driver\$ 24.85	7.93
Loader\$ 26.01	9.03
Mechanic\$ 27.75	11.90 11.90
Milling Machine\$ 27.75	11.90
Paver\$ 26.85 Roller-Asphalt\$ 26.85	11.90
Roller-Earth\$ 26.85	11.90
Scraper\$ 27.75	11.90+a
Screed\$ 25.03	7.02
Shoulder Machine\$ 26.85	11.90
Skid Steer (Bobcat)\$ 24.79	11.90
Trencher\$ 30.27	4.02
Vaccum Truck\$ 25.50	12.65

STEAMFITTER/PIPEFITTER\$ 25.00	10.30
TRUCK DRIVER	
Dump\$ 17.00	2.58
Dump-Articulating\$ 24.00	3.04
Flatbed\$ 21.14	8.65
Lowboy\$ 24.58	7.44
Tack/Tar Truck\$ 24.29	7.44
Tractor Trailer\$ 26.95	11.55
Water\$ 24.29	7.44
FRINGE BENEFITS:	7 1 414

a. PAID HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving & Christmas Day.
b. PAID VACATIONS: Employees with 1 year service - 1 week paid vacation; 2 years service - 2 weeks paid vacation; 10 years service - 3 weeks paid vacation.

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

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

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)).

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.

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.

END OF GENERAL DECISION

General Decision Number: MD180063 09/28/2018 MD63

State: Maryland

Construction Type: Highway

County: Baltimore County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	09/28/2018

SUMD2018-004 07/20/2018

Ra	tes	Fringes
BRICKLAYER\$ 29	9.17	17.52
CARPENTER Carpenter\$ 20 Shoring Scaffold Builder\$ 20		14.70 14.70
CEMENT MASON\$ 27	7.15	9.64
ELECTRICIAN\$ 30	0.00	7.25
IRONWORKER, REINFORCING\$ 30	0.70	20.66
IRONWORKER, STRUCTURAL\$ 28	8.70	20.66
LABORER Air Tool Operator\$ 1 Asphalt Paver\$ 1		6.63 6.63

Asphalt Raker\$ 18.13	5.51
Blaster-Dynamite\$ 17.61	6.63
Burner\$ 17.61	6.63
Common\$ 18.13	5.51
Concrete Puddler\$ 18.13	5.51
Concrete Surfacer\$ 17.61	6.63
Concrete Tender\$ 18.13	5.51
Concrete Vibrator\$ 18.13	5.51
Density Gauge\$ 18.13	5.51
Fireproofer-Mixer\$ 18.13	5.51
Flagger\$ 18.13	5.51
Grade Checker\$ 18.13	5.51
Hand Roller\$ 18.13	5.51
Hazardous Material Handler\$ 17.61	6.63
Jackhammer\$ 18.13	5.51
Landscaping\$ 18.13	5.51
Layout\$ 18.13	5.51
Luteman\$ 18.13	5.51
Mason Tender\$ 17.61	6.63
Mortar Mixer\$ 18.13	5.51
Pipelayer\$ 17.61	6.63
Plasterer-Handler\$ 18.13	5.51
Scaffold Builder\$ 17.61	6.63
Tamper\$ 18.13	5.51
	5.51
MARINE BOAT OPERATOR\$ 26.29	
MILLWRIGHT\$ 30.06	15.30
PAINTER: Bridge\$ 36.13	11.49
PILEDRIVERMAN\$ 33.93	10.98
POWER EQUIPMENT OPERATOR	
Asphalt Distributor\$ 23.08	6.82
Backhoe\$ 27.75	11.90
Boom Truck\$ 22.50	6.43
Broom/Sweeper\$ 26.85	11.90
Bulldozer\$ 27.75	11.90
Crane\$ 33.50	15.35
Drill-Rig\$ 27.75	11.90
Excavator\$ 27.75	11.90
Forklift\$ 26.95	
Gradall\$ 28.75	11.90
Grader\$ 28.75	11.90+a
Guard Rail Post Driver\$ 23.50	
Loader\$ 27.75	11.90
Mechanic\$ 27.75	11.90
Milling Machine\$ 27.75	11.90
Paver\$ 26.85	11.90
Roller-Asphalt\$ 26.85	11.90
Roller-Earth\$ 26.85	11.90
Scraper\$ 27.75	11.90+a
Screed\$ 29.73	7.99
Shoulder Machine\$ 26.85	11.90
Skid Steer (Bobcat)\$ 24.79	11.90
Trencher\$ 30.27	4.02
Vaccum Truck\$ 25.50	12.65

STEAMFITTER/PIPEFITTER\$ 25.00	10.30
TRUCK DRIVER	
Dump\$ 17.25	7.82
Dump-Articulating\$ 24.00	3.04
Flatbed\$ 19.53	1.98
Lowboy\$ 24.58	7.44
Tack/Tar Truck\$ 24.29	8.25
Tractor Trailer\$ 26.95	11.55
Water\$ 24.29	7.44

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

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

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)).

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.

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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.

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.

END OF GENERAL DECISION

General Decision Number: MD180064 09/28/2018 MD64

State: Maryland

Construction Type: Highway

County: Calvert County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	09/28/2018

SUMD2018-005 07/20/2018

	Rates	Fringes
CARPENTER	.\$ 28.36	11.59
CEMENT MASON	.\$ 21.00	
ELECTRICIAN	.\$ 31.75	10.35
IRONWORKER, ORNAMENTAL	.\$ 26.88	17.74
IRONWORKER, REINFORCING	.\$ 44.49	18.89
IRONWORKER, STRUCTURAL	.\$ 39.20	7.82
LABORER		
Air Tool Operator		3.99
Asphalt Paver		3.99
Asphalt Raker		2.00
Blaster-Dynamite	·.> 15.63	3.99

Burner\$	15.63	3.99
Common\$	14.50	
Concrete Puddler\$	14.50	
Concrete Surfacer\$		3.99
Concrete Tender\$		5155
Concrete Vibrator\$		
Density Gauge\$		
Fireproofer-Mixer\$	14.50	
Flagger\$	14.50	
Grade Checker\$		
Hand Roller\$		
Hazardous Material Handler\$		3.99
		5.55
Jackhammer\$		
Landscaping\$		
Layout\$	14.50	
Luteman\$	14.50	
Mason Tender\$	15.63	3.99
Mortar Mixer\$		
Pipelayer\$		3.99
		5.55
Plasterer-Handler\$		2 00
Scaffold Builder\$		3.99
Tamper\$	14.50	
PAINTER: Bridge\$	36.13	11.49
PILEDRIVERMAN\$	37.12	12.95
POWER EQUIPMENT OPERATOR		
Backhoe\$	25 50	7.86
Boom Truck\$		4.05
Crane\$		15.35+a
Excavator\$	40.00	12.97+a
Grader\$	28.93	12.97
Loader\$	37.48	12.97
Paver\$	28.93	12.97
Roller-Asphalt\$		12.97
		12.97
Skid Steer (Bobcat)\$		
Trencher\$	25.50	7.86
TRUCK DRIVER (Flatbed)\$	20.00	
a. PAID HOLIDAYS: New Year's Day	, Memorial Day,	July 4th,
Labor Day, Thanksgiving Day and		
b. PAID VACATIONS: Employees wit		e-1 week naid
vacation; 2 years service-2 week		
	s paru vacación	, io years
service-3 weeks paid vacation.		
WELDERS - Receive rate prescribed		orming
operation to which welding is inci	dental.	
Note: Executive Order (EO) 13706,	Establishing Pa	id Sick Leave
for Federal Contractors applies to		
Davis-Bacon Act for which the cont		
solicitation was issued) on or aft	er January I, 2	UI/. IT THIS

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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.

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Union Average Rate Identifiers

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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.

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

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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.

END OF GENERAL DECISION

General Decision Number: MD180066 09/28/2018 MD66

State: Maryland

Construction Type: Highway

County: Carroll County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	09/28/2018

SUMD2018-007 07/20/2018

F	Rates	Fringes
BRICKLAYER\$	29.17	17.52
CARPENTER Carpenter\$ Shoring Scaffold Builder\$		14.70 14.70
CEMENT MASON\$	30.17	9.64
ELECTRICIAN\$	31.75	10.35
IRONWORKER, REINFORCING\$	28.70	20.66
IRONWORKER, STRUCTURAL\$	28.70	20.66
LABORER Air Tool Operator\$ Asphalt Paver\$		6.89 6.89

Asphalt Raker\$ Blaster-Dynamite\$ Burner\$ Common\$ Concrete Puddler\$ Concrete Surfacer\$ Concrete Surfacer\$ Concrete Vibrator\$ Density Gauge\$ Fireproofer-Mixer\$ Flagger\$ Grade Checker\$ Hand Roller\$ Hazardous Material Handler.\$ Jackhammer\$ Landscaping\$ Layout\$ Luteman\$ Mason Tender\$ Mortar Mixer\$ Pipelayer\$ Plasterer-Handler\$ Scaffold Builder\$	21.50 21.50 18.47 18.47 21.50 18.47 21.50 18.47 21.50 18.47 21.50 18.47	5.93 6.89 5.93
MARINE BOAT OPERATOR\$		
MILLWRIGHT\$		15.30
PAINTER: Bridge\$	36.13	11.49
PILEDRIVERMAN\$	33.93	10.98
POWER EQUIPMENT OPERATORAsphalt Distributor\$Backhoe\$Boom Truck\$Boom/Sweeper\$Bulldozer.SCrane\$Drill-Rig\$Excavator\$Forklift.\$ Gradall\$Grader\$Guard Rail Post Driver\$Loader\$Milling Machine\$Paver\$Roller-Asphalt\$Screed\$Shoulder Machine\$Skid Steer (Bobcat)\$Trencher\$Vaccum Truck\$	27.75 22.50 26.85 27.75 33.50 27.75 27.75 24.79 28.75 28.75 28.75 20.00 27.75 27.75 37.19 29.25 31.49 26.85 27.75 24.16 26.85 24.79 25.50	6.82 11.90+a 3.38 11.90 11.90 15.35 11.90 11.90+a 11.90 11.90+a 2.64 11.90 11.90 11.90 11.90 11.90 11.90+a 11.90+a 6.66 11.90 11.90 11.90 5.85

STEAMFITTER/PIPEFITTER\$ 25.00	10.30
TRUCK DRIVER	
Dump\$ 19.17	3.78
Dump-Articulating\$ 24.00	3.04
Flatbed\$ 20.53	0.98
Lowboy\$ 24.58	7.44
Tack/Tar Truck\$ 23.70	11.67
Tractor Trailer\$ 26.95	11.55
Wster\$ 24.29	7.44

a. PAID HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.b. PAID VACATIONS: Employees with 1 year service-1 week paid vacation; 2 years service-2 weeks paid vacation; 10 years service-3 weeks paid vacation.

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

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

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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.

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.

END OF GENERAL DECISION

General Decision Number: MD180067 09/28/2018 MD67

State: Maryland

Construction Type: Highway

County: Cecil County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	09/28/2018

SUMD2018-008 07/20/2018

	Rates	Fringes
CARPENTER\$	23.00	1.98
CEMENT MASON\$	24.94	4.45
ELECTRICIAN\$	31.75	10.35
IRONWORKER (Fence Erector)\$	26.88	17.74
IRONWORKER, REINFORCING\$	30.48	16.64
IRONWORKER, STRUCTURAL\$	30.70	20.66
LABORER Air Tool Operator\$ Asphalt Paver\$ Asphalt Raker\$ Blaster-Dynamite\$	14.50 17.38	3.83 3.83 3.33 3.83

Burner\$ 14.50 Common\$ 17.38 Concrete Puddler\$ 17.38 Concrete Surfacer\$ 14.50 Concrete Tender\$ 17.38 Concrete Vibrator\$ 17.38 Density Gauge\$ 17.38 Fireproofer-Mixer\$ 17.38 Flagger\$ 17.38 Grade Checker\$ 17.38 Haard Roller\$ 17.38 Hazardous Material Handler\$ 14.50 Jackhammer\$ 17.38 Landscaping\$ 17.38 Layout\$ 17.38 Luteman\$ 17.38	3.83 3.33 3.83 3.33 3.33 3.33 3.33 3.33
Mason Tender\$ 14.50 Mortar Mixer\$ 17.38 Pipelayer\$ 14.50	3.83 3.33 3.83
Plasterer-Handler\$ 17.38 Scaffold Builder\$ 14.50 Tamper\$ 17.38	3.33 3.83 3.33
PAINTER: Bridge\$ 40.00	10.40
PILEDRIVERMAN\$ 28.78	14.70
PLUMBER\$ 36.87	18.48
POWER EQUIPMENT OPERATOR Asphalt Distributor \$17.00 Backhoe \$18.00 Boom Truck \$23.50 Broom/Sweeper \$18.00 Bulldozer \$26.95 Crane \$33.50 Excavator \$27.10 Gradall \$23.60 Guard Rail Post Driver \$23.00 Guard Rail Post Driver \$23.50 Loader \$27.75 Mechanic \$24.55 Milling Machine \$21.00 Paver \$26.85 Roller-Asphalt \$26.85	3.40 3.76 6.96 4.48 7.43 15.35 5.63 11.90 4.04 11.90 5.95 6.56 11.90 11.90 11.90
Scraper\$ 17.95 Screed\$ 13.00 Skid Steer (Bobcat)\$ 26.70 Trencher\$ 18.50 Vaccum Truck\$ 26.35 TRUCK DRIVER 20.00 Dump\$ 18.39 Flatbed\$ 21.68 Lowboy\$ 22.00	5.22 0.06 11.90 4.23 11.65 2.25 3.47
Tack/Tar Truck\$ 24.79	7.44

Tandem\$	21.00	5.30
Tractor Trailer\$	32.00	2.00
Water\$	18.25	0.61

a. PAID HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.b. PAID VACATIONS: Employees with 1 year service-1 week paid vacation; 2 years service-2 weeks paid vacation; 10 years service-3 weeks paid vacation.

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

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

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)).

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.

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.

General Decision Number: MD180068 09/28/2018 MD68

State: Maryland

Construction Type: Highway

County: Charles County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Numb	ber Publication	n Date
0	09/28/201	8

SUMD2018-009 07/20/2018

	Rates	Fringes
CARPENTER	.\$ 28.36	11.59
CEMENT MASON	.\$ 21.00	
ELECTRICIAN	.\$ 31.75	10.35
IRONWORKER, ORNAMENTAL	.\$ 26.88	17.74
IRONWORKER, REINFORCING	.\$ 44.49	18.89
IRONWORKER, STRUCTURAL	.\$ 39.20	7.82
LABORER		
Air Tool Operator		3.99
Asphalt Paver		3.99
Asphalt Raker		
Blaster-Dynamite	.\$ 15.63	3.99

Burner\$ 15.63	3.99
Common\$ 14.50	
Concrete Puddler\$ 14.50	
Concrete Surfacer\$ 15.63	3.99
Concrete Tender\$ 14.50	5.55
Concrete Vibrator\$ 14.50	
Density Gauge\$ 14.50	
Fireproofer-Mixer\$ 14.50	
Flagger\$ 14.50	
Grade Checker\$ 14.50	
Hand Roller\$ 14.50	
Hazardous Material Handler\$ 15.63	3.99
	5.55
Jackhammer\$ 14.50	
Landscaping\$ 14.50	
Layout\$ 14.50	
Luteman\$ 14.50	
Mason Tender\$ 15.63	3.99
Mortar Mixer\$ 14.50	
	3.99
Pipelayer\$ 15.63	5.55
Plasterer-Handler\$ 14.50	
Scaffold Builder\$ 15.63	3.99
Tamper\$ 14.50	
PAINTER: Bridge\$ 36.13	11.49
6	
PILEDRIVERMAN\$ 37.12	12.95
	12.35
DOLIED FOUTDMENT ODEDATOD	
POWER EQUIPMENT OPERATOR	
Backhoe\$ 25.50	7.86
Boom Truck\$ 19.50	4.05
Crane\$ 40.98	15.35+a
Excavator\$ 40.00	12.97+a
Grader\$ 28.93	12.97
Loader\$ 37.48	12.97
Paver\$ 28.93	12.97
Roller-Asphalt\$ 28.93	12.97
Skid Steer (Bobcat)\$ 26.98	12.97
Trencher\$ 25.50	7.86
TRUCK DRIVER (Flatbed)\$ 20.00	
a. PAID HOLIDAYS: New Year's Day, Memorial	Day July 4th
Labor Day, Thanksgiving Day and Christmas	
b. PAID VACATIONS: Employees with 1 year s	
vacation; 2 years service-2 weeks paid vac	ation; 10 years
service-3 weeks paid vacation.	
WELDERS - Receive rate prescribed for craft	performing
operation to which welding is incidental.	per : e:=8
operation to which welding is incluental.	
Note: Executive Order (EO) 13706, Establishi	
for Federal Contractors applies to all contr	
Davis-Bacon Act for which the contract is aw	
solicitation was issued) on or after January	1, 2017. If this

contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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)).

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.

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.

General Decision Number: MD180070 09/28/2018 MD70

State: Maryland

Construction Type: Highway

County: Frederick County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	09/28/2018

SUMD2018-011 07/20/2018

	Rates	Fringes
CARPENTER Carpenter\$		14.70
Shoring Scaffold Builder\$	26.66	14.70
CEMENT MASON\$	24.00	1.73
ELECTRICIAN\$	36.10	17.48
IRONWORKER (Fence Erector)\$	26.38	16.44
IRONWORKER, REINFORCING\$	31.00	14.96
IRONWORKER, STRUCTURAL\$	31.50	3.45
LABORER	45 30	
Air Tool Operator\$ Asphalt Paver\$		4.39 4.39

Asphalt Raker	4.39 4.39 4.39
Hazardous Material Handler\$ 15.78 Jackhammer\$ 13.67 Landscaping\$ 13.67 Layout\$ 13.67 Luteman\$ 13.67	4.39
Mason Tender\$ 15.78 Mortar Mixer\$ 13.67 Pipelayer\$ 15.78	4.39 4.39
Plasterer-Handler\$ 13.67 Scaffold Builder\$ 15.78 Tamper\$ 13.67	4.39
MILLWRIGHT\$ 30.06	15.30
PAINTER: Bridge\$ 36.13	11.49
PILEDRIVERMAN\$ 28.78	15.05
POWER EQUIPMENT OPERATOR Asphalt Distributor \$ 21.35 Backhoe \$ 16.00 Boom Truck \$ 22.50 Broom/Sweeper \$ 17.00 Bulldozer \$ 27.75 Concrete Curb and Gutter Pan \$ 28.71 Concrete Pump \$ 42.55 Crane \$ 33.50 Drill-Rig \$ 33.19	2.37 1.73 3.38 11.90 a 3.05 15.35 20.13
Excavator \$ 27.75 Forklift \$ 30.69 Gradall \$ 32.11 Guard Rail Post Driver \$ 24.85 Loader \$ 27.75 Mechanic \$ 35.94 Milling Machine \$ 18.86 Paver \$ 20.33 Roller-Asphalt \$ 19.49 Roller-Earth \$ 24.12 Screed \$ 20.20 Skid Steer (Bobcat) \$ 14.00 Trencher \$ 30.00 Vaccum Truck \$ 26.27	11.90 20.13 7.60 5.58 11.90 20.13 6.53 6.53 6.53 7.77 6.53 a 4.02

TRUCK DRIVER

Concrete Pump\$	26.75	6.15
Dump\$	18.26	6.53
Dump-Articulating\$	19.82	7.77
Flatbed\$	22.36	6.27
Lowboy\$	23.70	2.52
Tack/Tar Truck\$	19.81	6.53
Tandem\$	21.70	2.52
Tractor Trailer\$	20.14	6.53
Water\$	19.67	6.53

a. PAID HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.b. PAID VACATIONS: Employees with 1 year service-1 week paid vacation; 2 years service-2 weeks paid vacation; 10 years service-3 weeks paid vacation.

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

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

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)).

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).

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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

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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.

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.

General Decision Number: MD180072 09/28/2018 MD72

State: Maryland

Construction Type: Highway

County: Harford County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	09/28/2018

SUMD2018-013 07/20/2018

Ra	ites	Fringes
BRICKLAYER\$ 2	9.17	17.52
CARPENTER Carpenter\$ 2 Shoring Scaffold Builder\$ 2		14.70 14.70
CEMENT MASON\$ 3	0.17	9.64
ELECTRICIAN\$ 3	0.00	7.25
IRONWORKER, REINFORCING\$ 2	8.70	20.66
IRONWORKER, STRUCTURAL\$ 2	8.70	20.66
LABORER Air Tool Operator\$ 2 Asphalt Paver\$ 2		6.89 6.89

Asphalt Raker\$ 22.10	11.00
	6.89
Blaster-Dynamite\$ 21.50 Burner\$ 21.50	6.89
Common	11.00
Concrete Puddler\$ 22.10	11.00
Concrete Surfacer\$ 21.50	6.89
Concrete Vibrator\$ 22.10	11.00
Density Gauge\$ 22.10	11.00
Fireproofer-Mixer\$ 22.10	11.00
Flagger\$ 22.10	11.00
Grade Checker\$ 22.10	11.00
Hand Roller\$ 22.10	11.00
Hazardous Material Handler\$ 21.50	6.89
Jackhammer\$ 22.10	11.00
Landscaping\$ 22.10	11.00
Layout\$ 22.10	11.00
Luteman\$ 22.10	11.00
Mason Tender\$ 21.50	6.89
Mortar Mixer\$ 22.10	11.00
Pipelayer\$ 21.50	6.89
Plasterer-Handler\$ 22.10	11.00
Scaffold Builder\$ 21.50	6.89
Tamper\$ 22.10	11.00
MARINE BOAT OPERATOR\$ 26.29	
MILLWRIGHT\$ 30.06	15.30
PAINTER: Bridge\$ 36.13	11.49
PILEDRIVERMAN\$ 33.93	10.98
POWER EQUIPMENT OPERATOR	
Asphalt Distributor\$ 23.08	6.82
Backhoe\$ 27.75	11.90
Boom Truck\$ 22.50	6.43
Broom/Sweeper\$ 26.85	11.90
Bulldozer\$ 27.75	11.90
Crane\$ 33.50	15.35
Drill-Rig\$ 27.75	11.90
Excavator\$ 27.75	11.90+a
Forklift\$ 26.95	
Gradall\$ 28.75	11.90
Grader\$ 28.75	11.90+a
Guard Rail Post Driver\$ 23.50	
Loader\$ 27.75	11.90
Mechanic\$ 27.75	11.90
Milling Machine\$ 37.19	7.85
Paver\$ 29.25	8.30
Roller-Asphalt\$ 31.49	12.78
Roller-Earth\$ 26.85	11.90
Scraper\$ 27.75	11.90+a
Screed\$ 24.16	6.66
Shoulder Machine\$ 26.85	11.90
Skid Steer (Bobcat)\$ 24.79	11.90
Trencher\$ 30.27	4.02
Vaccum Truck\$ 25.50	12.65

STEAMFITTER/PIPEFITTER\$ 25.00	10.30
TRUCK DRIVER	
Dump\$ 17.25	7.82
Dump-Articulating\$ 24.00	3.04
Flatbed\$ 19.53	1.98
Lowboy\$ 24.58	7.44
Tack/Tar Truck\$ 23.70	11.67
Tractor Trailer\$ 26.95	11.55
Water\$ 24.29	7.44

a. PAID HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.b. PAID VACATIONS: Employees with 1 year service-1 week paid vacation; 2 years service-2 weeks paid vacation; 10 years service-3 weeks paid vacation.

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

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

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)).

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.

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.

General Decision Number: MD180013 01/05/2018 MD13

Superseded General Decision Number: MD20170013

State: Maryland

Construction Type: Highway

County: Howard County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification	Number	Publication	Date
0		01/05/2018	

SUMD2015-008 09/15/2015

	Rates	Fringes
CARPENTER\$	26.01	12.55
CEMENT MASON/CONCRETE FINISHER\$	24.61	9.64
ELECTRICIAN\$	37.69	14.65
IRONWORKER, REINFORCING\$	27.05	17.31
IRONWORKER, STRUCTURAL\$	26.97	15.87
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and		
Distributor\$	18.39	5.87

LABORER: Concrete Surfacer\$ 20.99 5.87	
LABORER: Grade Checker\$ 19.11 16.35	
LABORER: Luteman\$ 21.75 5.87	
LABORER: Mason Tender - Cement/Concrete\$ 19.11 16.35	
LABORER: Pipelayer\$ 20.65 6.06	
LABORER: Common or General, Includes Flagger\$ 16.50 5.87	
OPERATOR: Backhoe/Excavator/Trackhoe\$ 26.45 12.15	
OPERATOR: Bobcat/Skid Steer/Skid Loader\$ 23.49 12.15	
OPERATOR: Boom\$ 23.49 12.15	
OPERATOR: Broom/Sweeper\$ 23.49 12.15	
OPERATOR: Bulldozer\$ 26.45 12.15	
OPERATOR: Crane\$ 30.30 15.30	
OPERATOR: Distributor\$ 23.24 1.88	
OPERATOR: Gradall\$ 27.45 12.15	
OPERATOR: Loader\$ 26.45 12.15	
OPERATOR: Milling Machine\$ 26.45 12.15	
OPERATOR: Paver (Asphalt, Aggregate, and Concrete)\$ 25.55 12.15	
OPERATOR: Piledriver\$ 26.01 12.55	
OPERATOR: Roller\$ 25.55 12.15	
OPERATOR: Screed\$ 21.99 3.56	
PAINTER: Bridge\$ 33.23 9.40	
SCAFFOLD BUILDER\$ 26.01 12.55	
TRUCK DRIVER:Dump Truck\$22.000.00	
TRUCK DRIVER:Flatbed Truck\$ 19.100.00	
TRUCK DRIVER:TackTruck\$22.947.87	
TRUCK DRIVER: Water Truck\$ 25.70 6.96	

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

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

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)).

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).

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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.

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

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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.

General Decision Number: MD180088 09/28/2018 MD88

State: Maryland

Construction Type: Highway

County: Montgomery County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification N	lumber	Publication	Date
0		09/28/2018	

SUMD2018-015 07/20/2018

F	Rates	Fringes
CARPENTER Carpenter\$ Shoring Scaffold Builder\$		11.59 14.70
CEMENT MASON\$	22.00	2.69
ELECTRICIAN\$	36.10	16.98
IRONWORKER (Fence Erector)\$	26.38	16.44
IRONWORKER, REINFORCING\$	31.00	14.96
IRONWORKER, STRUCTURAL\$	31.50	3.45
LABORER Air Tool Operator\$ Asphalt Paver\$		7.26 7.26

Asphalt Raker\$ Blaster-Dynamite\$ Burner\$ Common\$ Concrete Puddler\$ Concrete Surfacer\$ Concrete Surfacer\$ Concrete Vibrator\$ Density Gauge\$ Fireproofer-Mixer\$ Flagger\$ Grade Checker\$ Hand Roller\$ Hazardous Material Handler.\$ Jackhammer\$ Landscaping\$ Layout\$ Luteman\$ Mason Tender\$ Pipelayer. Plasterer-Handler\$ Scaffold Builder\$	20.00 20.00 21.45 21.45 20.00 21.45 20.00 21.45 20.00	5.05 7.26 5.05 7.26 5.05 7.26 7.26 5.05 7.26 7.26 5.05 7.26
MILLWRIGHT\$		15.30
PAINTER: Bridge\$	36.13	11.49
PILEDRIVERMAN\$	29.94	10.98
POWER EQUIPMENT OPERATORAsphalt Distributor\$Backhoe\$Boom Truck\$Boom/Sweeper\$Bulldozer\$Concrete Curb and GutterPan\$Concrete Pump\$Crane\$Drill-Rig\$Excavator\$Forklift\$Gradall\$Guard Rail Post Driver\$Loader\$Milling Machine\$Paver\$Screed\$Skid Steer (Bobcat)\$Vacuum Truck\$	30.65 26.55 22.84 24.00 28.71 42.55 36.92 33.19 19.50 30.69 32.11 24.85 29.00 27.40 26.55 27.00 22.84 20.00 20.20 27.00 30.00	$\begin{array}{c} 2.37\\ 7.60\\ 7.60\\ 7.90\\ 0.46\\ \\ \\ a\\ 3.05\\ 7.60+a\\ 20.13\\ 3.51+a\\ 20.13\\ 7.60\\ 5.58\\ 7.77\\ 7.40\\ 7.60\\ 7.60\\ 7.60\\ 7.60\\ 3.94\\ 6.53\\ 4.77\\ 4.02\\ \end{array}$

TRUCK DRIVER

Concrete Pump\$ 26.75	6.15
Dump\$ 19.60	4.36
Dump-Articulating\$ 17.50	3.51
Flatbed\$ 22.36	6.27
Lowboy\$ 23.70	2.52
Tack/Tar Truck\$ 19.81	6.53
Tandem\$ 21.70	2.52
Tractor Trailer\$ 20.14	6.53
Water\$ 19.67	6.53

a. PAID HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.b. PAID VACATIONS: Employees with 1 year service-1 week paid vacation; 2 years service-2 weeks paid vacation; 10 years service-3 weeks paid vacation.

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

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

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Union Rate Identifiers

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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.

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.

General Decision Number: MD180089 09/28/2018 MD89

State: Maryland

Construction Type: Highway

County: Prince George's County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification N	lumber	Publication	Date
0		09/28/2018	

SUMD2018-016 07/20/2018

	Rates	Fringes
CARPENTER Carpenter\$ Shoring Scaffold Builder\$		11.59 14.70
CEMENT MASON\$	19.56	5.20
ELECTRICIAN\$	36.10	16.98
IRONWORKER (Fence Erector)\$	26.38	16.44
IRONWORKER, REINFORCING\$	31.00	14.96
IRONWORKER, STRUCTURAL\$	31.50	3.45
LABORER Air Tool Operator\$ Asphalt Paver\$		3.86 3.86

Blaster-Dynamite\$ 17.58 3 Burner\$ 17.58 3 Common\$ 18.00 6 Concrete Puddler\$ 18.00 6 Concrete Surfacer\$ 17.58 3 Concrete Tender\$ 18.00 6 Concrete Vibrator\$ 18.00 6 Concrete Vibrator\$ 18.00 6 Density Gauge\$ 18.00 6 Fireproofer-Mixer\$ 18.00 6 Flagger\$ 18.00 6 Hand Roller\$ 18.00 6 Hazardous Material Handler\$ 17.58 3 Jackhammer\$ 18.00 6 Landscaping\$ 18.00 6 Layout\$ 18.00 6	5.38 3.86 5.38 5.38 5.38 5.38 5.38 5.38 5.38 5.38
Mason Tender	5.38 8.86 5.38 8.86
Scaffold Builder\$ 17.58	5.38 3.86 5.38
MILLWRIGHT\$ 30.06 15	5.30
PAINTER: Bridge\$ 36.13 11	L.49
PILEDRIVERMAN \$ 29.94 10	9.98
Backhoe 30.65 7 Boom Truck 26.55 7 Broom/Sweeper 22.84 7	2.37 7.60 7.60 7.90 7.77 a
Concrete Pump\$ 42.55 3 Crane\$ 41.12 10.3 Drill-Rig\$ 33.19 26 Excavator\$ 26.62 5 Forklift\$ 30.69 26 Gradall\$ 32.11 7 Guard Rail Post Driver\$ 24.85 5 Loader\$ 29.00 7 Mechanic\$ 27.40 7 Milling Machine\$ 26.55 7 Paver\$ 41.25 7 Roller-Asphalt\$ 24.12 7 Screed\$ 20.02 6 Skid Steer (Bobcat)\$ 29.00 7.7	8.05

TRUCK DRIVER

Concrete Pump\$ 2	26.75	6.15
Dump\$ 2	22.36	
Dump-Articulating\$ 1	19.82	7.77
Flatbed\$ 2	22.36	6.27
Lowboy\$ 2	23.70	2.52
Tack/Tar Truck\$ 1	19.81	6.53
Tandem\$ 2	21.70	2.52
Tractor Trailer\$ 2	20.14	6.53
Water\$ 1	19.67	6.53

a. PAID HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.b. PAID VACATIONS: Employees with 1 year service-1 week paid vacation; 2 years service-2 weeks paid vacation; 10 years service-3 weeks paid vacation.

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

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

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)).

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.

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.

General Decision Number: MD180090 09/28/2018 MD90

State: Maryland

Construction Type: Highway

County: Queen Anne's County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification	Number	Publication	Date
0		09/28/2018	

SUMD2018-017 07/20/2018

	Rates	Fringes
CARPENTER\$	23.00	1.98
CEMENT MASON\$	24.94	4.45
ELECTRICIAN\$	31.75	10.35
IRONWORKER (Fence Erector)\$	26.88	17.74
IRONWORKER, REINFORCING\$	30.48	16.64
IRONWORKER, STRUCTURAL\$	30.70	20.66
LABORER Air Tool Operator\$ Asphalt Paver\$ Asphalt Raker\$ Blaster-Dynamite\$	5 14.50 5 14.87	3.83 3.83 1.68 3.83

Burner	3.83 1.68 3.83 1.68 3.83 1.68 3.83 3.83 1.68 3.83
PAINTER: Bridge\$ 40.00	10.40
PILEDRIVERMAN\$ 28.78	14.70
PLUMBER\$ 36.87	18.48
POWER EQUIPMENT OPERATOR Asphalt Distributor \$ 17.00 Backhoe \$ 18.00 Boom Truck \$ 23.50 Broom/Sweeper \$ 18.00 Bulldozer \$ 26.95 Crane \$ 33.50 Excavator \$ 27.10 Gradall \$ 20.00 Grader \$ 23.50 Loader \$ 23.00 Guard Rail Post Driver \$ 23.50 Loader \$ 26.95 Mechanic \$ 21.00 Paver \$ 15.50 Roller-Asphalt \$ 15.15 Roller-Earth \$ 13.75 Scraper \$ 13.00 Skid Steer (Bobcat) \$ 18.00 Trencher \$ 18.50 Vacuum Truck \$ 26.35	3.40 3.76 6.96 4.48 7.43 15.35 5.63 1.41 4.04 11.65 5.95 4.32 0.99 0.96 3.18 5.22 0.06 4.74+a 4.23 11.65
TRUCK DRIVER Concrete Pump\$ 20.00 Dump\$ 18.39 Flatbed\$ 21.68	2.25 3.47
Lowboy\$ 22.00 Tack/Tar Truck\$ 24.79	7.44

Tandem\$	21.00	5.30
Tractor Trailer\$	32.00	2.00
Water\$	18.25	0.61

a. PAID HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.b. PAID VACATIONS: Employees with 1 year service-1 week paid vacation; 2 years service-2 weeks paid vacation; 10 years service-3 weeks paid vacation.

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

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

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)).

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.

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.

END OF GENERAL DECISION

General Decision Number: MD180092 09/28/2018 MD92

State: Maryland

Construction Type: Highway

County: St Mary's County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification	Number	Publication	Date
0		09/28/2018	

SUMD2018-019 07/20/2018

	Rates	Fringes
CARPENTER	.\$ 28.36	11.59
CEMENT MASON	.\$ 21.00	
ELECTRICIAN	.\$ 31.75	10.35
IRONWORKER, ORNAMENTAL	.\$ 26.88	17.74
IRONWORKER, REINFORCING	.\$ 44.49	18.89
IRONWORKER, STRUCTURAL	.\$ 39.20	7.82
LABORER		
Air Tool Operator		3.99
Asphalt Paver		3.99
Asphalt Raker		2.00
Blaster-Dynamite	·.> 15.63	3.99

Burner\$ 15.63 Common\$ 14.50	3.99
Concrete Puddler\$ 14.50 Concrete Surfacer\$ 15.63 Concrete Tender\$ 14.50	3.99
Concrete Vibrator\$ 14.50 Density Gauge\$ 14.50	
Fireproofer-Mixer\$ 14.50 Flagger\$ 14.50 Grade Checker\$ 14.50	
Hand Roller\$ 14.50 Hazardous Material Handler\$ 15.63	3.99
Jackhammer\$ 14.50 Landscaping\$ 14.50	
Layout\$ 14.50 Luteman\$ 14.50 Mason Tender\$ 15.63	3,99
Mortar Mixer\$ 14.50 Pipelayer\$ 15.63	3.99
Plasterer-Handler\$ 14.50 Scaffold Builder\$ 15.63	3.99
Tamper\$ 14.50 PAINTER: Bridge\$ 36.13	11.49
PILEDRIVERMAN\$ 37.12	12.95
POWER EQUIPMENT OPERATOR	7.00
Backhoe\$ 25.50 Boom Truck\$ 19.50	7.86 4.05
Crane\$ 40.98	15.35+a
Excavator\$ 40.00	12.97+a
Grader\$ 28.93	12.97
Loader\$ 37.48	12.97
Paver\$ 28.93	12.97
Roller-Asphalt\$ 28.93	12.97
Skid Steer (Bobcat)\$ 26.98	12.97
Trencher\$ 25.50	7.86
TRUCK DRIVER (Flatbed)\$ 20.00	
a. PAID HOLIDAYS: New Year's Day, Memorial Labor Day, Thanksgiving Day and Christmas [Day.
b. PAID VACATIONS: Employees with 1 year se vacation; 2 years service-2 weeks paid vaca service-3 weeks paid vacation.	
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UFLDEDC Dessive note preservined for each	
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contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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)).

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.

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.

END OF GENERAL DECISION

General Decision Number: MD180094 09/28/2018 MD94

State: Maryland

Construction Type: Highway

County: Washington County in Maryland.

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

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Num	ber	Publication	Date
0		09/28/2018	

SUMD2018-021 07/20/2018

	Rates	Fringes
CARPENTER\$	21.17	6.53
CEMENT MASON\$	19.51	6.53
ELECTRICIAN\$	30.50	15.68
IRONWORKER, REINFORCING\$	28.31	19.69
IRONWORKER, STRUCTURAL\$	26.81	19.68
LABORER		
Air Tool Operator\$		6.53
Asphalt Paver\$		6.53
Asphalt Raker\$		6.53
Blaster-Dynamite\$		6.53
Burner\$		6.53
Common\$	14.80	6.53

Concrete Puddler\$ 14.80	
	6.53
Concrete Surfacer\$ 23.88	6.53
Concrete Tender\$ 14.80	6.53
Concrete Vibrator\$ 14.80	6.53
Density Gauge\$ 14.80	6.53
Fireproofer-Mixer\$ 14.80	6.53
Flagger\$ 14.80	6.53
Grade Checker\$ 14.80	6.53
Hand Roller\$ 14.80	6.53
Hazardous Material Handler\$ 23.88	6.53
Jackhammer\$ 14.80	6.53
Landscaping\$ 14.80	6.53
Layout\$ 14.80	6.53
Luteman\$ 14.80	6.53
Mason Tender\$ 23.88	6.53
Mortar Mixer\$ 14.80	6.53
Pipelayer\$ 23.88	6.53
Plasterer-Handler\$ 14.80	6.53
Scaffold Builder\$ 23.88	6.53
Tamper\$ 14.80	6.53
MILLWRIGHT\$ 28.65	16.80
MILLWRIGHI	10.00
PAINTER: Bridge\$ 36.13	11.49
POWER EQUIPMENT OPERATOR	
Backhoe\$ 21.08	6.53
Boom Truck\$ 24.00	3.49
Broom/Sweeper\$ 17.70	6.53
Bulldozer\$ 25.92	6.53
Concrete Curb and Gutter	
Pan\$ 29.52	13.65+a
	101.00.0
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Tandem\$ 27.75	18.30
Tractor Trailer\$ 20.11	6.53
Water\$ 18.69	6.53

a. PAID HOLIDAYS: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day.b. PAID VACATIONS: Employees with 1 year service-1 week paid vacation; 2 years service-2 weeks paid vacation; 10 years service-3 weeks paid vacation.

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

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

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)).

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.

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.

END OF GENERAL DECISION

MARYLAND DEPARTMENT OF TRANSPORTATION.

STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONS NOTICE OF ACTIONS FOR AFFIRMATIVE ACTION

CONTRACT NO. AX7665D82 1 of 8

NOTICE OF ACTIONS REQUIRED FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

- 1. The Offeror's or Bidders attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
- 2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as noted in Appendix A and B:

These goals are applicable to all the Contractors' construction work (whether or not it is Federal or federally assisted) performed in the covered area. 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 nonfederally 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. The hours of minority and female employment and training must be substantially uniform throughout the length of 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 Executive 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 of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this notification. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
- **4.** As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is noted on appendix B.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (Executive Order 11246)

- **1.** As used in these specifications:
 - **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;

Maryland department of transportation

STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONS

NOTICE OF ACTIONS FOR AFFIRMATIVE ACTION

- CONTRACT NO. AX7665D82 2 of 8
- **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 people of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and,
 - (iv) American Indians 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 and which is set forth in the solicitations from which this contract resulted.
- **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 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 7.p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goal 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.

MARYLAND DEPARTMENT OF TRANSPORTATION

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CONTRACT PROVISIONS NOTICE OF ACTIONS FOR AFFIRMATIVE ACTION

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- 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, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, 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 or 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 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 with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman 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 7.b 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, annual report, etc.; by specific review of the

MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

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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 on-site supervisory personnel such as Superintendents, General Foremen, etc., 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 it in any advertising in the news media, specifically including minority and female news media, 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.** Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female 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 any 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 a Contractor's work force.
- **k.** Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- **1.** Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- **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 insure 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.

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- **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 (7.a through 7.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 if its obligations under 7.a through 7.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 work force 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 non-compliance.
- **9.** A single goal for minorities and a separate single goal for women have been established. The Contractor, however, 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 (for example, even though the Contractor has achieved its goals for women generally 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 national origin.
- **11.** The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
- **12.** The Contractor shall carry out such sanctions and penalties for violation of these specifications and of 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 shall proceed in accordance with 41 CFR 60-4.8.
- 14. The Contractors shall designate a responsible official 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 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

MARYLAND DEPARTMENT OF TRANSPORTATION

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CONTRACT PROVISIONS NOTICE OF ACTIONS FOR AFFIRMATIVE ACTION

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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 shall 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

(a.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

16. The Contractor will receive at the time of Award Federal Form CC-257 for his use in reporting monthly the Affirmative Actions for minority and female which he has employed.

MARYLAND DEPARTMENT OF TRANSPORTATION_

CONTRACT PROVISIONS NOTICE OF ACTIONS FOR AFFIRMATIVE ACTION

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APPENDIX A

The following goals and timetables for female utilization shall be included in all Federal and federally assisted construction contracts and subcontracts in excess of \$10,000. The goals are applicable to the Contractor's aggregate on-site construction work force whether or not part of that work force is performing on a Federal or federally assisted construction contract or subcontract.

AREA COVERED: Nationwide

GOALS AND TIMETABLES

Timetable

Goals (percent)

From April 1, 1978 until March 31, 1979	3.1
From April 1, 1979 until March 31, 1980	5.0
From April 1, 1980 until further notice	6.9

MARYLAND DEPARTMENT OF TRANSPORTATION.

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APPENDIX B

Until further notice, the following goals for minority utilization in each construction craft and trade shall be included in all Federal or federally assisted construction contracts and subcontracts in excess of \$10,000 to be performed in the respective geographical areas. The goals are applicable to each nonexempt contractor's total on-site construction work force, regardless of whether or not part of that work force is performing work on a Federal, federally assisted or nonfederally related project, contract or subcontract.

Construction contractors which are participating in an approved Hometown Plan (see 41 CFR 60-4.5) are required to comply with the goals of the Hometown Plan with regard to construction work they perform in the area covered by the Hometown Plan. With regard to all their other covered construction work such contractors are required to comply with the applicable SMSA or EA goal contained in this appendix B-80.

	Goal
State	(percent)
Maryland:	
019 Baltimore, MD:	
SMSA Counties:	
0720 Baltimore, MD	23.0
MD Anne Arundel; MD Baltimore;	
MD Carroll; MD Harford;	
MD Howard; MD Baltimore City	
Non-SMSA Counties	23.6
MD Caroline; MD Dorchester;	
MD Kent; MD Queen Annes;	
MD Somerset; MD Talbot;	
MD Wicomico; MD Worcestar	
Washington, DC:	
020 Washington, DC:	
SMSA Counties:	
8840 Washington, DC	28.0
MD Charles; MD Montgomery;	
MD Prince Georges	
Non-SMSA Counties	25.2
MD Calvert; MD Frederick	
MD St. Marys; MD Washington	
Pennsylvania	
Non-SMSA Counties	4.8
MD Allegany: MD Garrett	
ing inigan, ing outen	

MARYLAND DEPARTMENT OF TRANSPORTATION

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CONTRACT PROVISIONS HIGH VISIBILITY SAFETY APPAREL POLICY

NOTICE TO ALL HOLDERS OF THIS CONTRACT DOCUMENT

HIGH VISIBILITY SAFETY APPAREL POLICY

BACKGROUND. Research indicates that high visibility garments have a significant impact on the safety of employees who work on highways and rights-of-way. In addition, high visibility garments may help to prevent injuries and accidents and to make highway workers more visible to the motoring public, which ultimately improves traffic safety.

STATEMENT OF POLICY.

- (a) The High Visibility Safety Apparel Policy provides a standardized apparel program.
- (**b**) The program seeks to improve the visibility of all persons who work on Administration highways and rights-of-way.
- (c) All apparel shall contain the appropriate class identification label.
- (d) Compliance with this policy is retroactive and becomes effective immediately. All affected employees shall receive high visibility apparel awareness training.

APPLICABILITY. This policy applies to all Administration employees and all other persons who work on Administration highways and rights-of-way. All workers shall wear, at a minimum, Class 2 ANSI/ISEA 107/2004 apparel.

- (a) For Administration employees, this apparel shall have a fluorescent yellow-green background material color and be the outermost garment worn.
- (b) Retro-reflective material color for Administration employee apparel shall be silver or white and be visible at a minimum distance of 1,000 feet. The retro-reflective safety apparel shall be designed to clearly recognize and differentiate the wearer from the surrounding work environment. The retro-reflective material may be contrasted by fluorescent orange background material not exceeding one and one half inches on either side of the retro-reflective material.
- (c) For non-Administration employees, this apparel shall be either fluorescent orange-red or fluorescent yellow-green background material color and be the outermost garment worn.
- (d) Retro-reflective material color for non-Administration employee apparel shall either be orange, yellow, white, silver, yellow-green, or a fluorescent version of these colors, and be visible at a minimum distance of 1,000 feet. The retro-reflective safety apparel shall be designed to clearly recognize and differentiate the wearer from the surrounding work environment.

MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONS HIGH VISIBILITY SAFETY APPAREL POLICY

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REFERENCES.

- (a) ANSI/ISEA 107/2004 standard American National Safety Institute/International Safety Equipment Association
- (**b**) MUTCD 2009 Manual for Uniform Traffic Control Devices Sections 6D.03B and 6E.02
- (c) Visibility Research The VCTR 1989 report concludes that fluorescent colors, when compared with non-fluorescent colors, enhance the daytime conspicuity of worker clothing.

DEFINITIONS.

- (a) Apparel The outermost high-visibility garment worn by employees who work on Administration highways and rights-of-way.
- (b) Highways All roads owned by the Maryland Department of Transportation and maintained by the Administration.
- (c) High Visibility The ability for workers to be distinguishable as human forms to be seen, day and night, at distances that allow equipment operators and motorists to see, recognize, and respond.

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SPECIFICATIONS

All work on this project shall conform to the Maryland Department of Transportation, State Highway Administration's Specifications entitled, "Standard Specifications for Construction and Materials" dated May 2017 revisions thereof, or additions thereto, and the Special Provisions included in this Request for Proposals.

In the following sections of the "Standard Specifications for Construction and Materials" dated May 2017, the word "Engineer" shall be taken to mean "Design-Build Engineer."

Category 100 Preliminary Section 101.03.02	¶ 1, Line 1
<u>Category 200 Grading</u> Section 201.03.04 Section 201.03.10 Section 204.02.03 Section 206.04.02	¶ 6, Line 2 ¶ 1, Line 4 ¶ 1, Line 1 ¶ 5, Line 2
Category 300 Drainage	
Section 306.04.03 Section 310.03.02 Section 314.02.03	¶ 1, Line 1 ¶ 1, Line 5, ¶ 1, Line 5
Category 400 Structures Section 402.03.04 Section 410.03.09 Section 411.03 Section 430.03.14	¶ 2, Line 2 ¶ 1, Line 4 ¶ 2, Line 1,6 ¶ 1, Line 5
Category 500 Paving	
Section 522.03	¶ 1, Line 1
Category 600 Shoulders	
Section 606.03.01 Section 607.03.01	¶ 5, Line 3 ¶ 3, Line 2
<u>Category 800 – Traffic</u>	
Section 804.03.03 Section 804.03.03	¶ 1, Line 6 ¶ 2, Line 2

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CONTRACT PROVISIONS SPECIFICATIONS

Section 810.03.04 ¶ 1, Line 3

Category 900 – Materials

Section 910.02.03	¶ 1, Line 3
Section 915.01.06	¶ 1, Line 4, 7
Section 921.10	¶ 1, Line 3

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SPECIAL PROVISIONS PROJECT DESCRIPTION

PROJECT DESCRIPTION

1 Refer to TC Section 2.14.02, Project Overview.

SPECIFICATIONS

All work on this project shall conform to the Maryland Department of Transportation, State Highway Administration's Specifications entitled, "Standard Specifications for Construction and Materials" dated May 2017 revisions thereof, or additions thereto, and the Special Provisions included in this Invitation for Bids.

EMPLOYMENT AGENCY

Anne Arundel County

Linthicum American Job Center 613 Global Way Linthicum, MD 21090 Telephone: 410-424-3240 Fax: 410-508-2333 dlwdalglenburnie-dllr@maryland.gov

Arundel Mills Sales and Service Training Center (Business Services only) Arundel Mills Mall 7000 Arundel Mills Circle Hanover, MD 21076 Telephone: 410-777-1845

BWI American Job Center BWI Thurgood Marshall International Airport PO Box 46024 BWI Airport, MD 21240 Telephone: 410-684-6838

Ft. Meade (must have military ID):Ft. Meade Outreach CenterBuilding 4432Ft. Meade, MD 20755Telephone: 410- 674-5240 or 410-674-6509

Freetown Village (Senior Program only): 7831 Huff Court Pasadena, MD 21122 Telephone: 410-437-3052 Laurel Regional Career Center 312 Marshall Avenue, Suite 604, Laurel, Maryland 20707-4824 Telephone: 301-362-9708

Baltimore County

Baltimore County Workforce Development Center at Eastpoint 7930 Eastern Avenue Baltimore, Maryland, 21224 Telephone: 410-288-9050 ext. 424 Fax: 410-288-9260 eastwdrc@baltimorecountymd.gov

Baltimore County Workforce Development Center at the Liberty Center 3637 Offutt Road Randallstown, MD 21133 Telephone: 410-887-8912 Fax: 410-496-3136 lcwdrc@baltimorecountymd.gov

Baltimore County Workforce Development Center at Hunt Valley 11101 McCormick Road, Suite 102, Hunt Valley, Maryland 21031 Telephone: 410-887-7940 Fax: 410-329-1317 huntvwdc@baltimorecountymd.gov

Carroll County

Business and Employment Resource Center 224 N. Center St., 2nd Floor Westminster, MD 21157 Telephone: 410-386-2820 Fax: 410-848-9699 dlwdalwestminster-dllr@maryland.gov

Cecil County

Susquehanna Workforce Center - Elkton 1275 West Pulaski Hwy Elkton, MD 21921 Telephone: 410-996-0550 Fax: 410-996-0555 A Susquehanna Workforce Center Partner Iwdalelktonjsoffice-dllr@maryland.gov

Charles County

Southern Maryland JobSource 175 Post Office Road Waldorf, Maryland 20602 Telephone: 301-645-8712 Fax: 301-645-8713 dlwdalcharlescountyjs-dllr@maryland.gov

Frederick County

Frederick County American Job Center 200 Monroe Avenue, Suite 1 Frederick, Maryland 21701 General Information: 301-600-2255 Fax: 301-600-2906 frick.js@maryland.gov

Harford County

Susquehanna Workforce Center - Bel Air Mary Risteau Building 2 South Bond Street Bel Air, Maryland 21014 Telephone: 410-836-4603 Fax: 410-836-4640 A Susquehanna Workforce Center Partner dlwdalbelairjsoffice-dllr@maryland.gov

Aberdeen Workforce Center University Center 1201 Technology Drive, Room 107 Aberdeen, MD 21001 Telephone: 410-272-5400 Fax: 443-327-8763 A Susquehanna Workforce Center Partner

Howard County

Columbia Workforce Center 7161 Columbia Gateway Drive Columbia, Maryland 21046 Telephone: 410-290-2600 Fax: 410-312-0834 dlwdalcolumbiajsoffice-dllr@maryland.gov

SPECIAL PROVISIONS PROJECT DESCRIPTION

Montgomery County

WorkSource Montgomery American Job Center 11002 Veirs Mill Road Wheaton Plaza South Office Building Wheaton, MD 20902 Telephone: 301-929-4350 Fax: 301-929-4383 wheaton@dllr.state.md.us

Germantown American Job Center 12900 Middlebrook Road Germantown, MD 20874 Telephone: 240-406-5485 Fax: 301-685-5569 info@workSourcemontgomery.com

Prince George's County

Prince George's American Job Center 1801 McCormick Drive, 1st floor Largo, MD 20774 Phone: 301-618-8400 Fax: 301-386-5533 E-mail: dlwdallargo-dllr@maryland.gov

Washington County

Washington County American Job Center 14 N. Potomac Street, Suite 100 Hagerstown, MD 21740 Telephone: 301-393-8200 dlwdalhagerstown-dllr@maryland.gov

SPECIAL PROVISIONS NOTICE TO CONTRACTOR

NOTICE TO CONTRACTOR

PROJECT SCHEDULE. Section 109 shall only apply when a CPM Project Schedule item is included in the Schedule of Prices. Otherwise, all Project Schedules shall conform to Section 110.

NOTICE TO BIDDERS. The Proposal Form Packet in this Invitation for Bids requires the following information be submitted for the Bidder and each firm quoting or considered as subcontractors:

(a) Name of firm.

(**b**) Address of firm.

(c) MBE, Non-MBE, DBE, or Non-DBE.

(d) Age of firm.

(e) Annual gross receipts per last calendar year.

Note that there are provisions for submitting copies for additional subcontractors, and that an "X" is required to indicate whether or not additional copies have been submitted.

AFFIRMATIVE ACTION PLAN (AAP) CONTRACT GOALS. In order to be in compliance with the revised MBE/DBE laws effective September 27, 2011 or later, the bidder is required to complete the AAP information within the MDOT MBE/DBE Form A and Form B (Parts 2 and 3) of the Proposal Form Packet for State, Federal, and State Small Business Reserve Procurements. Failure to complete the information may be grounds for the bid to be declared non-responsive.

BOOK OF STANDARDS. The Book of Standards for Highway and Incidental Structures is only available on the Administration's Internet Site at <u>www.roads.maryland.gov</u>. The Book of Standards can be located by clicking on Business, Business Center, Business Standards and Specifications; and Book of Standards for Highway and Incidental Structures.

2017 STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS BOOK. The 2017 Standard Specifications for Construction and Materials Book is now only available on the Administration's Internet Site at <u>www.roads.maryland.gov</u>. The 2017 Specification Book can be located by clicking on Business, Business Center, Business Standards and Specifications; and Standard and Supplemental Specifications for Construction and Materials which is available for MediaWiki format.

PAYMENT OF STATE OBLIGATIONS. Electronic funds transfer will be used by the State to pay Contractor for this Contract and any other State payments due Contractor unless the State Comptroller's Office grants Contractor an exemption.

By submitting a response to this solicitation, the Bidder/Offeror agrees to accept payments by electronic funds transfer unless the State Comptroller's Office grants an exemption. The selected Bidder/Offeror shall register using the attached form COT/GAD X-10 Vendor Electronic Funds (EFT) Registration Request Form. Any request for exemption must be submitted to the State Comptroller's Office for approval at the address specified on the COT/GAD X-10 form and must include the business identification information as stated on the form and include the reason for the exemption.

An electronic form and additional information can be found at

SPECIAL PROVISIONS NOTICE TO CONTRACTOR

http://comptroller.marylandtaxes.com/Vendor_Services/Accounting_Information/Electronic_Funds_Transfer/

BRIDGE UNDERCLEARANCE. The minimum underclearances shall be maintained whenever resurfacing a roadway. This may require grinding the existing pavement prior to placing the resurfacing material. Immediately after completing the resurfacing operation and when the lane closures are still in the effect, the Contractor, in the presence of the Engineer, shall measure the minimum vertical underclearance. The Engineer will submit results to the Office of Structures. The cost of these measurements will be incidental to other pertinent items specified in the Contract Documents.

REQUEST FOR INFORMATION.

Refer to TC Section 2.15.02.5

RIGHT-OF-WAY STATUS.



In accordance with the requirements of Title 23, Code of Federal Regulations, Part 635, the referenced project is a Design-Build project where the successful contractor would be responsible for the acquisition of right-of-way. The right-of-way limit for the proposed work is unknown at this time.

RAILROAD STATEMENT. Federal Aid Contracts Only. Federal Aid Contract No. PENDING

For this project, Maryland SHA is providing the following statement of coordination (check one):

No Railroad coordination required (no RR facilities are affected) (check this box when there is no railroad facility within or near the terminus of the project limits)

- All Railroad work has been completed prior to the project (check this box if traffic control devices within or near the terminus of the Federal-Aid project limits comply with the current edition of the Manual on Uniform Traffic Control Devices)
- The necessary arrangements have been made for all railroad work to be undertaken and completed as required for proper coordination with physical construction schedules. (Appropriate notification shall be provided in the PS&E for railroad coordination concurrent with the project construction)
- For AREAWIDE Contracts, Maryland SHA will provide a Statement of Coordination when the Modification to the 25C is submitted, prior to NTP. (Check this box for all AREAWIDE Projects)

REQUIRED ENVIRONMENTAL PERMITS, APPROVALS AND AUTHORIZATIONS.

∖ For permit information, please refer to TC Section 2.14.02.04.7 Permits.

SPECIAL PROVISIONS NOTICE TO CONTRACTOR

NOTICE TO CONTRACTOR

EARLY SUBMISSIONS. The last sentence of the first paragraph of TC-5.02, "No work shall be started before receipt of the Notice to Proceed" shall not apply to the following:

After notification to the Contractor from the Administration that the Contractor is the apparent low bidder, the Contractor will be permitted to provide a written request to the Engineer to submit documentation for materials sources and working drawings for any items of work that have a long lead time and could jeopardize the project schedule. Upon written approval from the Engineer the Contractor may submit the applicable documentation to the Engineer.

Should the Contract not be awarded to the apparent low bidder who meets the requirements of the Contract, GP-8.10 will apply for all costs accrued for the preparation and approval of the working drawings and any resultant material purchase approved by the District Engineer and steel fabricated in conformance with the approved working drawings between the date the Contractor received notice of apparent low bidder and the date of notice that the apparent low bidder will not be awarded this Contract.

Should this Contract not be awarded to the apparent low bidder due to failure of the Contractor to comply with all award and execution requirements, all costs accrued for the preparation of the specific items and any resultant material purchased and steel fabrication shall be borne by the Contractor.

Failure of the Contractor to submit the early submissions will not be basis for delaying issuance of the Notice to Proceed or be considered a reason for a time extension.

SPECIAL PROVISIONS

CONTRACT NO. AX7665D82

BIDDING REQUIREMENTS AND CONDITIONS FOR DESIGN BUILD - COMPETITIVE SEALED PROPOSALS

1 of 1

GENERAL PROVISIONS GP SECTION 2 BIDDING REQUIREMENTS AND CONDITIONS FOR DESIGN-BUILD – COMPETETIVE SEALED PROPOSALS

16 **<u>DELETE</u>**: **GP-2.19** (a) **General.** in its entirety.

INSERT: The following:

GP-2.19 (a) **General.** The Contract is to be awarded as outlined in TC 2 of the Request for Proposals.

<u>DELETE</u>: GP-2.19 (b) Determination of Lowest Bidder.

INSERT: The following:

GP-2.19 (b) Determination of Successful Proposer.

DELETE: The first sentence in GP-2.19 (b) "Bids shall be...Invitation for Bids."

INSERT: The following:

Proposals shall be evaluated as outlined in TC 2 of the Request for Proposals

17 **DELETE:** GP-2.19 (c) Award. in its entirety.

INSERT: The following:

GP-2.19 (c) **Award.** Award of the Contract will be based on the criteria as outlined in TC 2 of the Request for Proposals.

MARYLAND DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY ADMINISTRATION

SPECIAL PROVISIONS INSERT GP — 7.22 NONHIRING OF EMPLOYEES

CONTRACT NO. AX7665D82 1 of 1

GENERAL PROVISIONS

GP SECTION 7 LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

DELETE: GP-7.22 NONHIRING OF EMPLOYEES in its entirety.

INSERT: The following.

GP-7.22 NONHIRING OF EMPLOYEES

No official or employee of the State of Maryland, as defined under General Provisions Article, §5-101, Annotated Code of Maryland, whose duties as such official or employee include matters relating to or affecting the subject matter of this contract, shall during the pendency and term of this contract and while serving as an official or employee of the State become or be an employee of the contractor or any entity that is a subcontractor on this contract.

MARYLAND DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY ADMINISTRATION

SPECIAL PROVISIONS INSERT GP — 7.34 CONFLICT OF INTEREST LAW

CONTRACT NO. AX7665D82 1 of 1

GENERAL PROVISIONS

GP SECTION 7 LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

DELETE: GP-7.34 CONFLICT OF INTEREST LAW in its entirety.

INSERT: The following.

GP-7.34 CONFLICT OF INTEREST LAW

It is unlawful for any State officer, employee, or agent to participate personally in his official capacity through decision, approval, disapproval, recommendation, advice, or investigation in any Contract or other matter in which he, his spouse, parent, minor child, brother, or sister has a financial interest or to which any firm, corporation, association, or other organization in which he has a financial interest or in which he is serving as an officer, director, trustee, partner, or employee is a party, or to which any person or organization with whom he is negotiating or has any arrangement concerning prospective employment, is a party, unless such officer, employee, or agent has previously complied with the provisions of General Provisions Article, Title 5 of the Annotated Code of Maryland.

The Contractor shall comply with the provisions of State Finance and Procurement Article, §13-212.1, Annotated Code of Maryland and COMAR 21.05.08.08.

TERMS AND CONDITIONS

TC SECTION 2 BIDDING REQUIREMENTS AND CONDITIONS FOR COMPETITIVE SEALED PROPOSALS (DESIGN-BUILD)

1 TC-2.02 CONTENTS OF BID FORMS

DELETE: This entire section.

TC-2.03 PREPARATION OF BID

<u>DELETE</u>: This entire section.

TC-2.05 DELIVERY OF BIDS

DELETE: This entire section.

TC-2.06 AMENDMENTS TO INVITATIONS FOR BIDS

<u>DELETE</u>: This entire section.

TC-2.07 PRE-OPENING MODIFICATION OR WITHDRAWAL OF BIDS

<u>DELETE</u>: This entire section.

1 TC-2.08 LATE BIDS, LATE WITHDRAWALS, AND LATE MODIFICATION DELETE: This entire section.

TC-2.10 VALUE ENGINEERING CHANGE PROPOSALS

DELETE: This entire section.

ADD: Value Engineering proposals will not be entertained on this project.

TC-2.12 DEBARMENT/SUSPENSION

DELETE: This entire section.

INSERT: The following:

Pursuant to Maryland Board of Public Works Advisory 2003-4, the Administration verifies whether bidders, their affiliates, or their subcontractors have been suspended or debarred by the State of Maryland or the federal government by using the following lists:

- 1. See http://bpw.maryland.gov/Pages/debarments.aspx for the State of Maryland debarment list.
- 2. See http://www.sam.gov/ and click on 'Search Records' for the federal debarment list.

TC-2.13 PARTNERING

DELETE: This entire section.

INSERT: The following:

Partnering on this project will be mandatory. The partnership will be structured to draw on the strengths of each organization through open communication, teamwork and cooperative action to identify and achieve mutual goals. The objective is to create an atmosphere of trust and honest dialogue among all stakeholders. This partnership will not change the legal relationship of the parties to the Contract nor relieve any party from any of the terms of the Contract.

The Administration's Assistant District Engineer of Construction, the Project Design Engineer and the Design-Builder's management representative will organize a partnering project team. Persons recommended being on the team and guidelines for partnering are included in the Partnering Field Guide at www.mdqi.org.

The kick-off workshop meeting will be held soon after execution of the Contract. All stakeholders will attend the kick-off workshop to develop and commit to the Partnering Charter and Issue Resolution process. Follow-up meetings will be held monthly by the Design-Builder and the Administration, with other stakeholders attending as needed.

Measuring the partnering on the project is a key element to its success. All stakeholders will participate in the process. The Partnering Project Rating form will be completed monthly and then entered into the Administration's Partnering Data Base. Summaries of the ratings will then be shared with the team. The Administration's and Design-Builder's

management team will review the partnering ratings and intervene if necessary on a monthly basis.

All cost of partnering meetings shall be shared equally between the Design-Builder and the Administration.

TC 2.14 REQUEST FOR PROPOSALS (RFP)

2.14.01 Design-Build Concept

The Administration is soliciting Technical Proposals and Price Proposals for the design and construction of improvements to existing stormwater management facilities and outfalls. This project is located in Anne Arundel, Baltimore, Carroll, Cecil, Charles, Frederick, Harford, Howard, Montgomery, Prince George's and Washington Counties in Maryland.

The use of the term "Contractor" or "Design-Builder" within the Contract Documents furnished by the Administration shall be taken to mean Design-Build (D-B) Contractor. These terms are interchangeable.

The use of the term "Designer" or "Design-Build Engineer," within the Contract Documents furnished by the Administration, shall be taken to mean the Engineer working for the Design-Build Contractor. The use of the term "Engineer," within the Contract Documents furnished by the Administration, shall be as defined in Section GP-1.03 of the General Provisions for Construction Contracts.

2.14.01.1 Restrictions on Participation in Design-Build Contracts:

An individual or entity that has received monetary compensation as the lead or prime design consultant under a contract with the Administration to develop the concept plan and/or have been retained to perform construction phase services on behalf of the state, or a person or entity that employs such an individual or entity, or regardless of design phase responsibilities has received in excess of \$500,000.00 for services performed, may not submit a Technical Proposal or a Price Proposal for this procurement and is not a responsible proposer under COMAR 21.06.01.01. The Technical Proposal or Price Proposal from such an individual or entity will be rejected pursuant to COMAR 21.06.01.01 and COMAR 21.06.02.03.

The following is a list of consultants and/or subconsultants that have received monetary compensation under a contract with the Administration as the prime consultant to develop

the concept plan, have been retained by the Administration to perform construction phase services on the behalf of the state for this procurement, or have received payment in excess of \$500,000.00. MDOT SHA makes no representations regarding the completeness of the list:

- McCormick Taylor, Inc.
- Wilson T. Ballard

§ 13-212.1 of the State Finance & Procurement Article that contains various restrictions on participating in State procurements. Any questions regarding eligibility must be appealed to the Maryland State Board of Contract Appeals.

No official or employee of the State of Maryland, as defined under General Provisions Article of the Annotated Code of Maryland, whose duties as such official or employee include matters relating to or affecting the subject matter of this contract, shall during the pendency and term of this contract and while serving as an official or employee of the State become or be an employee of the Consultant or an entity that is a subcontractor on this contract.

No Design-Build Team may use any persons meeting the above restrictions in any capacity, key staff or otherwise, on this Design-Build Contract. It is the responsibility of the Design-Build Team to identify any potential ethics issues concerning its former MDOT employees and seek an opinion from the State Ethics Commission regarding any potential conflicts of interest. The Design-Build Team shall provide certification in its cover letter that it is in compliance with State Ethics Laws prohibiting work on a matter in which a former MDOT employee participated significantly as a State Employee for the duration of this contract.

2.14.02 Project Overview

2.14.02.01 Description of Work

The contract generally consists of the design and construction of retrofit Stormwater Management Facilities and stabilization of Outfalls to achieve TMDL credits. The project is located in Anne Arundel, Baltimore, Carroll, Cecil, Charles, Frederick, Harford, Howard, Montgomery, Prince George's and Washington Counties. The scope of improvements is anticipated to include, but is not limited to, topographic survey, earthwork, drainage, stormwater management (SWM), erosion and sediment control (ESC), landscaping, maintenance of traffic, utility coordination, Plats Development, coordinate with Maryland Department of Transportation State Highway Administration (MDOT SHA) and provide

information to obtain site(s) specific National Environmental Protection Act (NEPA) approval, Right-of-way acquisition and environmental permit acquisition.

The MDOT SHA is providing a menu of outfall locations and stormwater management facilitates that require maintenance and stormwater management facilitates that do not require maintenance. The Design-Builder's responsibility shall include, but not be limited to, selection of site locations from the menu, coordinate and provide information to obtain site specific NEPA approval, obtain any required environmental permitting, design and construct any resulting mitigation, obtain any needed topographic survey, develop plats for any needed Right-of-way acquisitions, acquire any needed Rights-of-way, design the site, construct the site and perform other work as needed as outlined elsewhere in this Request for Proposals (RFP) for stabilization of outfalls and/or retrofit stormwater management facilities to achieve TMDL credit.

Stormwater management facilitates that do not require maintenance shall only be used to provide TMDL credit through innovative techniques, materials and products. The determination that a technique, material and/or product is innovative shall be at the sole discretion of the Administration.

If a site selected by the Design-Builder is found to be too impactful to the environment and/or schedule, the Design-Builder shall be responsible to select alternative site(s) to achieve the number of credit acres the Design-Builder identified in their Price Proposal.

2.14.02.02 Project History

A TMDL sets a pollution "diet" for a designated water body that identifies the maximum concentration, volume, or weight of pollution tolerable before the water body becomes impaired. The decision for Environmental Protection agency (EPA) to adopt a Chesapeake Bay TMDL arose from the appearance of large "dead zones" decimating the ecological and economical productiveness of the nation's largest estuary and to resolve outstanding court cases and consent decrees. The Chesapeake Bay Total Maximum Daily Load (TMDL) is unique, in that a Presidential Executive Order requires each signatory State to establish two-year milestones, approved and enforced by the EPA. Since Maryland lies within the Bay's watershed, the State's 'Watershed Implementation Plan (WIP) identifies MDOT SHA as a major developer and sets targets for which the Administration must meet. Failure to achieve these target milestones results in enforcement actions, including but not limited to: assignment of more stringent pollutant reduction responsibilities, rescinding State NPDES program delegated authority, rejecting state-issued NPDES permits, and

withholding, conditioning, or reallocating federal grant funds.

2.14.02.03 Project Goals

- 1. TMDL Credit achieve the maximum Number of TMDL Credit Acres as cost effectively as possible
- 2. Environment Minimize impacts to Environmental Resources
- 3. Maintenance Provide a facility that is able to be adequately maintained
- 4. Safety Maximize safety during and after construction
- 5. Right-of-way Minimize acquisition of property

2.14.02.04 Project Status

The current status of aspects of the project is as outlined hereafter.

2.14.02.04.1 Survey

No topographic survey was performed by the Administration.

The Design-Builder must obtain all survey data necessary for their design, construction, and surface modeling for all design activities.

2.14.02.04.2 Plans

No conceptual plans were prepared for any of the site locations.

2.14.02.04.3 Cross-Sections

Field-surveyed cross-sections were not taken, and conceptual cross sections were not prepared for any site location. The Design-Builder must perform any field-run cross-sections to complete design and construction activities to address design and/or construction issues and provide clarification where necessary. If required, cross-sections showing existing and proposed ground must be prepared by the Design-Builder using the appropriate computer software.

2.14.02.04.4 Geotechnical

The Administration has not obtained any soils borings, performed

laboratory testing nor performed any preliminary geotechnical survey.

The Design-Build Team is responsible for performing a complete geotechnical program including borings, sampling, in-situ and laboratory testing, analysis, design, and other geotechnical services as necessary to complete design and construction.

2.14.02.04.5 Utilities

No utility designations, test pitting or other utility information has been obtained by the Administration.

The Design-Builder will be responsible to obtain any utility data it determines necessary for design and construction of the project.

2.14.02.04.6 Right of Way

It shall be the Design-Builder's responsibility to determine existing MDOT SHA Right-of-way at each site selected by the Design-Builder. All construction must be entirely contained within Right-of-way certified by the Administration. If the Design-Builder's project requires acquisition of Right-of-way it shall be the Design-Builder's responsibility to identify those needs, coordinate with MDOT SHA and provide information to obtain site specific NEPA approval for those areas, plat the acquisitions and acquire the Right-of-way in accordance with the provisions outlined elsewhere in this RFP.

The Design-Builder may begin construction activity only on plans where the disturbance is entirely contained within right-of-way certified by the Administration to be in MDOT SHA's possession. The Design-Builder may not proceed with construction on any properties not within MDOT SHA possession until such time as the Administration issues a Right-of-Way Certification stating that right-of-way is clear for the construction package. The Administration may issue multiple Right-of-Way Certifications throughout the acquisition process. The Right-of-Way Certification(s) will only list those properties which have been cleared at the time of issuance.

The Design-Builder will be responsible for acquiring, at its expense, all other rights in land needed for construction staging, yarding, or other construction needs outside the scope of the improvements. 2.14.02.04.7 Permits

The permits and/or approvals that are anticipated to be required for this project include but is not limited to the following:

- Stormwater Management Permit and Erosion and Sediment Control Approval (from SWM/ESC Approval Authority)
- National Pollutant Discharge Elimination System (NPDES) Permit (from MDE)
- Section 404 Individual Permit, Water Quality Certification and Nontidal Wetlands & Waterways Permit and (from USACE and MDE)
- Maryland Forest Conservation Act (FCA), Maryland Reforestation Law (Reforestation Law), and/or Maryland Roadside Tree Law (Tree Law) (from DNR)
- all permits, approvals, and licenses for the prosecution of the Work

Status of Stormwater Management and Erosion and Sediment Control Review:

No Stormwater Management (SWM) design has been developed by the Administration. The Design-Build Team is responsible for the preparation of SWM Plans and obtaining final approvals.

No erosion and sediment control (ESC) design has been developed by the Administration. The Design-Build Team is responsible for the preparation of ESC Plans and obtaining final approvals.

Status of National Pollutant Discharge Elimination System Permit:

The Administration has not submitted a Notice of Intent (NOI) form to MDE. The Design-Build Team is responsible for submitting the NOI and to complete the public notice period and submitting any amendments thereto. Any delays resultant of obtaining NOI amendments will be the sole responsibility of the Design-Builder.

Status of Nontidal Wetlands & Waterways Permit and Section 404 Individual Permit:

The Design-Build Team is responsible applying for a Nontidal Wetlands and

Waterways Permit and obtaining final approvals as the Permittee. Any resultant delays or changes to schedules or costs, whether direct, indirect or consequential, arising out of obtaining the approved permit will be the responsibility of the Design-Builder.

Additionally, the Design-Builder shall be responsible for all permit conditions and any mitigation required to obtain the approved permit at no additional cost to the Administration.

Status of Reforestation Law Approval:

The Design-Build Team is responsible applying for a Permit for Tree impacts and obtaining final approvals as the Permittee. Any resultant delays or changes to schedules or costs, whether direct, indirect or consequential, arising out of obtaining the approved permit will be the responsibility of the Design-Builder.

Additionally, the Design-Builder shall be responsible for all permit conditions and any mitigation required to obtain the approved permit at no additional cost to the Administration.

2.14.03 RFP Package

The following materials are being provided to all prospective proposers on ProjectWise:

- A. Request for Proposals
- B. Questions and Responses

The following material is being provided in electronic format on ProjectWise. This material is considered Engineering Data and the Administration will stand behind its accuracy unless otherwise specified in the contract documents.

C. Site Specific Information - Excel files containing site specific information for existing outfall and stormwater management locations is provided.

The following materials are being provided in electronic format on ProjectWise. This material is considered Conceptual and the Administration makes no representation regarding its accuracy.

D. Existing Geo-Referenced Right of Way Plats – Any identified Right-of-way plats that intersect outfall and stormwater site locations are provided as spatial overlays for reference only. These plats include intended acquisition but may not represent accurate dedications and ownership, as the actual acquisitions may not have been

concluded. It is the responsibility of the Design Builder to verify land ownership with supporting deed records.

- E. GIS Files An ArcGIS geodatabase containing the existing outfall and stormwater management locations that require maintenance is provided as spatial overlays. Point and polygon features are included to geographically represent the approximate location of the outfalls and stormwater management facilities. All associated attributes for each site are for informational purposes only and need to be verified by the Design Builder.
- F. GIS Files for Innovation An ArcGIS geodatabase containing the existing stormwater management locations for facilitates that do not require maintenance that shall only be used to provide TMDL credit through innovative techniques, materials and products is provided as spatial overlays. Point and polygon features are included to geographically represent the approximate location of the outfalls and stormwater management facilities. All associated attributes for each site are for informational purposes only and need to be verified by the Design Builder.
- G. A GIS layer containing previous wetland delineations throughout the State of Maryland is provided. This file is a compilation of wetland delineations completed for various previous projects. This information is for reference only as the delineations were collected at the time of each project and may not portray an accurate representation of the existing environmental resources. It is the Design-Builder's responsibility to identify and confirm all environmental resources.
- H. Outfall Site Photographs All available outfall site photographs are provided. The photographs were taken at the time of inspection and do not guarantee an accurate representation of the existing site conditions. This material is for informational purposes only and the Administration makes no representation regarding its accuracy. It is the Design Builder's responsibility to field verify the existing site conditions.
- I. Stormwater Management Facility Information All available as-built plans and stormwater management reports are provided. The as-built plans and stormwater management reports represent the design at the time of construction and do not guarantee an accurate representation of the existing site conditions. The provided information is from past projects and may not represent the entire plan set or

stormwater report. It is the Design- Builder's responsibility to field verify the existing site conditions.

The following materials are being provided in electronic format on ProjectWise. This material is considered necessary for the Design-Build Team to submit a Technical Proposal, prepare a Price Proposal and/or finalize their designs.

2 J. NEPA Environmental Document

- K. TMDL Crediting Information
- L. Stormwater Management and Surface Drainage Information
- M. Wetland and Waterways Permitting Information

Proposers are also provided with a file index provided on Projectwise. The file is a Word Document describing all the files and files names for the information outlined above.

2.14.04 Description of Work

2.07.04.1 Engineering/Construction Services

The required engineering and construction services to be provided by the Design-Builder will include, but not be limited to:

- Data Collection (includes surveying, geotechnical, etc.).
- Hydraulic Analysis, Design, Construction and Agency Approval
- Roadside Landscape Planting, Stormwater Management Landscape Planting, Reforestation Design, Agency Approval and Construction of the aforementioned.
- Utility designation and coordination
- Geotechnical Engineering
- Storm Water Management (SWM) Design, outfall stabilization design, Approvals, Construction and As-Built Certification (including MDE approval).
- Erosion and Sediment Control (E&S) Design, Implementation and Approvals (including NPDES and MDE Approvals).

- Engineering Studies and Reports required to meet the contract or permit requirements or to address any comments from the Administration or other agencies related to obtaining, meeting or modifying the permit.
- General Coordination with Administration (includes obtaining required approvals).
- Produce Required Deliverables.
- Environmental Permit Activities (including obtaining permits).
- Community Relations.
- Traffic Control Design and Implementation.
- Maintenance of project site(s) including mowing, watering, and dust control.
- Obtaining all required permit from the appropriate regulatory agencies for any impacts to trees, stormwater management, erosion and sediment control, or any other resource.
- Implementation of any required mitigation or remediation for impacts to environmental resources to obtain permit approvals or due to any noncompliance with the permit conditions.
- Any other items required to successfully complete the project.

TC 2.15 PROPOSAL SUBMISSION REQUIREMENTS

2.15.01 **Responsibilities of the Proposers**

2.15.01.1 Review of RFP

Before submitting a proposal, the Prospective Proposer is responsible for examining the RFP and materials furnished to each Prospective Proposer. The Prospective Proposer is responsible for all site investigation and preliminary design necessary to submit proposals and accept responsibility that their Price Proposal is sufficient to complete all, permitting, right-of-way acquisition, design and construction.

2.15.01.2 Site Investigation

The Design-Builder is permitted to inspect the portions of the of the project site within the Administration's Existing Right-of-Way. The Design-Builder invited to submit a Price Proposal must first examine all of the project site that

is under Administration control. Examination of all other areas must be arranged with the owner.

The Prospective Proposer is solely responsible for all site conditions discoverable from a reasonable site examination. A reasonable site examination includes all utility and/or geotechnical investigation that the Prospective Proposer determines is necessary to properly price the Work. If the Prospective Proposer determines, before submission of the proposals, that additional utility designation, geotechnical and/or subsurface investigation or analysis are necessary to properly price the Work; it is the responsibility of the Prospective Proposer to perform such investigation and analysis at its expense. The Price Proposal submission will be considered conclusive evidence that the Prospective Design-Build Team has determined that it has performed a reasonable site investigation to submit Price Proposal, necessary to perform the activities as outlined in this RFP for the project.

All subsurface investigations performed by the Prospective Proposer, including sampling and laboratory testing, shall be performed by a Geotechnical firm experienced in subsurface investigations and in accordance with the 1988 AASHTO Manual on Subsurface Investigations, AASHTO Standards, the Maryland Department of Transportation State Highway Administration (MDOT SHA) Standard Specifications for Subsurface Explorations, MSMT Standards, the MDOT SHA Book of Standards for Highway and Incidental Structures, and ASTM Standards. The Prospective Proposer shall be responsible for utility clearance and any traffic control required for his investigation. The Prospective Proposer shall submit all Maintenance of Traffic concepts related to site investigation to the MDOT SHA District Traffic Division of the applicable District for approval. Any investigative methods that pose a safety threat to the traveling public shall not be used. Any borings taken in roadway or shoulder areas shall be backfilled before the area is re-opened to traffic. The Prospective Proposer shall restore to its current condition, any area of the site disturbed by his site investigation operations. If the Prospective Proposer encounters any abnormal conditions that indicate the presence of hazardous materials or toxic waste during his site investigation, they shall immediately suspend work in the area and notify the Administration. A Geotechnical Engineer who is registered in the State of Maryland shall supervise all subsurface investigations conducted by the Design-Builder.

2.15.01.3 Utility Coordination

Prior to submitting a Price Proposal, the Prospective Proposer must conduct utility research and coordination with all utility companies along with additional site research to determine:

a. What utility facilities actually exist within the project limits.

The Price Proposal must represent a thorough consideration of these elements.

2.15.01.4 Surveys

No Topographic Survey was performed by the Administration. The Prospective Proposer must perform any required survey or topographic information (including utility locations). The Design-Builder must account for these services within their project schedule and design submittals. It is the responsibility of the Prospective Proposer at its expense to obtain all additional information and the Administration accepts no responsibility for the lack of this information.

2.15.01.5 Duty to Notify if Errors Discovered

Proposers shall not take advantage of any error, omission, or discrepancy in the RFP or related materials, including all project information. If a Proposer discovers such an error, omission or discrepancy, he shall immediately notify the Administration in writing; failure to do so notify shall constitute a waiver of any claim based upon such error, omission, or discrepancy. After such notification, the Administration will confirm or modify the RFP in writing as the Administration determines may be necessary to fulfill the intent of the RFP.

2.15.02 Pre-Submittal Requirements

2.15.02.1 Letter of Interest

A Letter of Interest (LOI), on official letterhead of the Design-Build Team, notifying the Administration whether or not the DB Team intends to submit a Technical Proposal and Price Proposal must be delivered no later than July 3, 2018 prior to 12 noon (EST). The LOI must be delivered to the following email address:

AX766D_TMDL@sha.state.md.us

The LOI must be signed by individual(s) authorized to represent the Major Participant firm(s) and the lead Constructor firm(s). A Major Participant is defined as the legal entity, firm or company, individually or as a party in a joint venture or limited liability company or some other legal entity, that will be signatory to the Design–Build Contract with the Administration. Major Participant(s) will be expected to accept joint and several liability for performance of the Design–Build Contract. Major Participants are not design sub-consultants, construction subcontractors or any other subcontractors to the legal entity that signs the Design–Build Contract.

The LOI shall include the primary and secondary individual contacts for the Major Participant firm(s) with address, phone number, and E-mail address where all communications from MDOT SHA should be directed for this RFP phase.

As an attachment to LOI provide evidence that the Design-Build Team is capable of obtaining a Performance Bond and a Payment Bond in accordance with the requirements in Maryland's 2017 Standard Specifications for Construction and Materials, GP – Section 3 and appropriate for the upper level of Project Classification J as defined in Maryland's Standard Specifications for Construction and Materials, Section TC 2.01.

Such evidence shall take the form of a letter from a surety company indicating that such capacity is anticipated to be available for the contracting entity. Letters indicating "unlimited" bonding capacity are not acceptable. The surety company providing such letter must be rated at least A- by two nationally recognized credit rating agencies or at least A-VII by A.M. Best & Company. The letter should recognize the firm's backlog and work in progress in relation to its bonding capacity.

2.15.02.2 Mandatory One-On-One Meetings

The Administration will hold mandatory one-on-one meetings with the Proposers who meet the requirements of TC 2.15.02.1 only. The purpose of these meetings will be to discuss issues and clarifications regarding the RFP and/or the Proposer's potential Alternative Technical Concept (ATC) submittals. The Administration reserves the right to disclose to all Proposers any issues raised during the one-on-one meetings, except to the extent the Administration determines that, in its sole discretion, such disclosure would

impair the confidentiality of an ATC or would reveal a Proposer's confidential business strategies. Each meeting will be held independently with each Prospective Proposer.

The one-on-one meetings are subject to the following:

- a. The meetings are intended to provide Proposers with a better understanding of the RFP.
- b. The Administration will not discuss any Proposal or proposed ATC with any Proposer other than its own.
- c. The Administration will not discuss any ATC under review by the Administration at the time of the meeting.
- d. Proposers are not permitted to seek to obtain commitments from the Administration in the meetings or otherwise seek to obtain an unfair competitive advantage over any other Proposer.
- e. No aspect of these meetings is intended to provide any Proposer with access to information that is not similarly available to other Proposers, and no part of the evaluation of Proposals will be based on the conduct or discussions that occur during these meetings.

The Administration reserves the right to disclose to all Proposers any issues raised during the one-on-one meetings which require addenda to the RFP. The Administration, however, will not disclose any information pertaining to an individual Proposer's Proposal, ATCs, or other technical concepts to other Proposers.

2.15.02.3 Communications During Proposal Preparation

The Procurement Officer is the Administration's single contact and source of information for this procurement.

The following rules of contact will apply during the Contract procurement process, which begins upon the date of issuance of the RFP, and will be completed with the execution of the Contract. These rules are designed to promote a fair, unbiased, and legally defensible procurement process. Contact includes face-to-face, telephone, facsimile, electronic-mail (e-mail), or formal written communication.

The specific rules of contact are as follows:

- 1. Communication will only be accepted by the Administration from those Proposers who have met the requirements of TC 2.15.02.1.
- 2. Section 11-205 of the State Finance and Procurement Article, Annotated Code of Maryland, prohibits and penalizes collusion in the State procurement process.
- 3. Unless otherwise specifically authorized by the Procurement Officer, a Proposer may contact the Department and the Administration only through the Procurement Officer and only in letter format via e-mail and not orally. The Proposer's contacts with the Department and the Administration shall be only through a single representative authorized to bind the Proposer.
- 4. The Procurement Officer normally will contact a Proposer in writing through the Proposer's designated representative identified in their LOI.
- 5. Neither a Proposer nor its agents may contact Department or Administration employees, including Department or Administration heads, members of the evaluation committee(s) and any other person who will evaluate proposals, regarding the project, except through the process identified above.
- 6. Any contact by a Proposer determined to be improper may result in disqualification of the Proposer.
- 7. The Administration will not be responsible for or bound by: (1) any oral communication, or (2) any other information or contact that occurs outside the official communication process specified herein, unless confirmed in writing by the Procurement Officer.
- 8. <u>The Design-Builder shall not directly contact the regulator agencies</u> (including but not limited to the US Army Corp of Engineers (USACE), <u>Maryland Department of the Environment (MDE)</u>, <u>Maryland</u> <u>Department of Natural Resources (DNR)</u>, <u>Maryland State Historic</u> <u>Preservation Office (MD SHPO)</u>, US Fish and Wildlife Service (USFWS), US Environmental Protection Agency (EPA)) during the <u>contract procurement process.</u>

All requests for additional information or clarification of the RFP and any other communication concerning this project shall be submitted via e-mailed with return

confirmation receipt. No verbal requests or personal visits will be honored. All written contacts shall be addressed to the Procurement Officer:

Mr. Eric E. Marabello, P.E. Director, Office of Highway Development MDOT State Highway Administration e-mail address: AX766D_TMDL@sha.state.md.us

No requests for additional information or clarification to any other Administration office, consultant, or employee will be considered. During the Technical Proposal and Price Proposal Phase, as discussed in GP 2.09, Prospective Proposers may make inquiries up to **4:00 p.m. (EST) on October 16, 2018**. <u>Prospective Proposers is defined as those</u> <u>Proposers who have met the requirements of TC 2.15.02.1</u>. Inquiries received after that date and time will not be accepted. All responses to questions related to the Technical Proposal and Price Proposal Phase and any addenda to the RFP will be disseminated by email to the primary contact for those firms who have met the requirements of TC 2.15.02.1.

2.15.02.4 Addenda

Interpretations, clarifications or modifications to this RFP will be made by Addenda. Only interpretations, clarifications and answers to the questions included in Addenda or such writings shall be binding on the Administration.

2.15.02.5 Request for Information (RFI)

Responses to all RFI's not part of an addendum, will be provided through email and shall be considered contractually binding. The Administration will provide a comprehensive list of questions and answers to the Reduced Candidate List 7 days prior to the Technical Proposal due date.

2.15.02.6 Compliance with Applicable Law

In connection with this RFP and the Contract, Proposers shall comply with all applicable laws in all aspects in connection with the procurement process of this project and in the performance of the Contract.

2.15.02.7 ATC Submittal and Review

TC Section 2.15.02.8 through 2.15.02.13 set the process for the submittal and review of Alternative Technical Concepts (ATC) that conflict with the requirements for design and construction of the project, or otherwise require a

modification to the technical requirements of the project. ATCs will only be accepted by the Administration from those Proposers who have met the requirements of TC 2.15.02.1. The process is intended to:

- Allow Proposers to incorporate innovation and creativity into the Proposals.
- Allow the Administration to consider Proposer ATCs in making the selection decision.
- Avoid delays and potential conflicts in the design associated with deferring of reviews of ATCs to the post-award period.
- Obtain the best-value for the public.

ATCs eligible for consideration hereunder are limited to those deviations to the requirements of the as-issued Contract Documents that result in performance and quality of the end product that equal to or better than the performance and quality of the end product absent the deviation, as determined by the Department at its sole discretion. Equal to or better ATCs that include the application of practical design alternatives that will advance the project goals without compromising the performance, quality, and safety of the end product are encouraged.

A concept is not eligible for considerations as an ATC if, in the Administration's sole discretion, it is premised upon or it would require:

- A reduction in project scope, performance, or reliability.
- The addition of a separate Administration project to the Contract (such as expansion of the scope of the project to include additional roadways).
- An increase in the amount of time required for Substantial Completion or Contract Time.

Any ATC that, if implemented, would require further environmental evaluation or permits for the project, may be allowed, provided that the Proposer bears the schedule and cost risk associated with such additional environmental reevaluation or permit approvals. If the Proposer is not able to obtain the approvals necessary to implement the ATC, the Proposer is obligated to develop the project in accordance with existing approvals and without additional cost or extension of time.

If a Proposer is unsure whether a concept is consistent with the requirements of the RFP or if the concept would be considered an ATC by the Administration, the Administration recommends that the Proposer submit such concept for review as an ATC. The Proposer is also encouraged to submit standards or specifications that are approved for usage by other state Departments of Transportation as ATCs. If a

concept is submitted as part of the Technical Proposal that the Administration considers to be an ATC, and the Proposer has not received prior ATC approval, the Proposer may be required to revert back to the RFP requirements if selected.

The Proposer is also encouraged to submit innovation techniques, materials and products for TMDL credit as ATCs.

The Proposer may submit an ATC for review by the Administration on or before **September 18, 2018 at 4:00 p.m.** (prevailing local time). Inquiries received after that date and time will not be accepted.

All ATCs shall be submitted in writing via email only to AX766D_TMDL@sha.state.md.us, with a cover letter clearly identifying the submittal as a request for review of an ATC. If the Proposer does not clearly designate its submittal as an ATC, the submission will not be treated as an ATC by the Administration.

The Administration will review each ATC submitted. If an ATC is summarily approved or not approved, the Administration's comments will inform the Proposer that its technical concept appears to be generally acceptable, or the Administration will identify areas in which the approach appears to be incompatible with the project goals and requirements. If the Administration needs more information to determine whether or not the ATC will be approved or not approved, the Administration will submit written questions to the Proposer and/or request a oneon-one meeting in order to better understand the details of the ATC. The Administration may conditionally approve an ATC based on required revisions to a portion or portions of the ATC.

If an ATC is not approved or conditionally approved and the Proposer feels that the non-approval or the conditions for approval were due to an incorrect conclusion on the part of the Administration, it may re-submit the ATC for one additional review via email only to AX766D_TMDL@sha.state.md.us. If a re-submittal is made, it shall be accompanied by a cover letter clearly identifying such submission as an ATC submitted for an additional review. Resubmission of an ATC will not entitle the Proposer to an extension of the Proposal due date.

The Proposer shall advise the Administration in its ATC if it believes a one-on-one meeting is appropriate.

The Administration will return its approval, non-approval, conditional approval, or additional questions pertaining to any specific ATC no later than two weeks after receipt of that ATC. If the Proposer does not receive a return response from the

Administration within two weeks of the Administration's receipt of the ATC, the Proposer shall presume that the Administration has rejected the ATC. The non-approval of an ATC will not entitle the Proposer to an extension of the Proposal due date.

2.15.02.8 Content of ATC Submittal

Each ATC submittal shall include a sequential ATC number and shall include the following:

- A) Description: Detailed descriptive information and other appropriate information as appropriate such as conceptual drawings, production details, standards, specifications, and a traffic operations analysis.
- B) Location: The locations where, and an explanation of how, the ATC will be used on the Project.
- C) Maintenance: Any change in routine maintenance requirements associated with the ATC, including ease of maintenance.
- D) Design Life: Any change in the anticipated design life of the item(s) comprising the ATC.
- E) Time Savings: Any reduction in the time period necessary to design and construct the Project resulting from implementing the ATC, including, as appropriate, a description of method and commitments.
- F) RFP References: References to requirements of the RFP that are inconsistent with the proposed ATC, an explanation of the nature of the deviations from said requirements, and a request for approval of such deviations. Any requested deviation from the requirements from the RFP related to the ATC must be listed in this section.
- G) Analysis: The analysis justifying the use of the ATC and why the deviation, if any, from the requirements of the RFP should be allowed.
- H) Potential Impacts: A preliminary analysis of potential impacts (both during and after construction) including but not limited to user impacts, Right-of-Way, geotechnical, utilities, environmental permitting, local community, safety, and life-cycle project and infrastructure costs, including impacts on the cost of repair, maintenance, and operation.
- I) Other projects: A description of other projects on which the ATC has been used, the degree of success or failure of such usage, and the names and contact information (including telephone numbers and e-mail addresses) of project owner representatives who can confirm such statements.
- J) Added Administration Risk: A description of added risk to the Administration or third parties associated with implementing the ATC.
- K) Added Design-Builder Risk: A description of added risk to the Design-Builder associated with implementing the ATC.

- L) Additional Costs: An estimate of any additional Administration, Proposer, or third-party cost associated with implementation of the ATC.
- M) Price Proposal Adjustment: An estimate of the Price Proposal adjustment should the ATC be approved and implemented.
- N) Equal or Better: An analysis of how the ATC is equal or better in quality and performance than the requirements of the Contract Documents and how it would advance the project goals, as applicable.
- O) Miscellaneous: Any additional information that would assist the Administration in the review of this ATC.
- 2.15.02.9 Determination By The Administration

The Administration will make one of the following determinations with respect to each properly submitted ATC:

- A) The ATC is acceptable for inclusion in the Proposal.
- B) The ATC is not acceptable for inclusion in the Proposal.
- C) The ATC is conditionally approved in its present form and may be included in the Proposal upon satisfaction, in the Administration's sole discretion, of identified conditions, clarifications, or modifications.
- D) The ATC is not acceptable in its present form, but may be acceptable upon satisfaction, in the Administration's sole discretion, of certain identified conditions (such as additional information and/or a one-on-one meeting) which must be met or clarifications or modifications that must be made through a submittal of a revised ATC.
- E) The submittal does not qualify as an ATC but may be included in the Proposal because it appears to be within the requirements of the RFP.
- F) The Administration requires additional time to further review the ATC, and expects to provide a response to the Design-Builder on (Date).

Approval of an ATC will constitute a change in the specific requirements of the Contract Documents associated with the approved ATC and for that specific Proposer. Should the Design-Builder be unable to obtain required approvals for any ATC incorporated into the Contract Documents, or if the concept otherwise proves to be infeasible, the Design-Builder will be required to conform to the original RFP requirements. Each Proposer, by submittal of its Proposal, acknowledges that the opportunity to submit ATCs was offered to all Proposers, and waives any right to object to the Administration's determinations regarding acceptability of ATCs.

2.15.02.10 Incorporation Into Proposal

Proposer may incorporate zero, one or more pre-approved ATCs into its Proposal including conditionally approved ATCs. If the Administration responded to an ATC by identifying conditions to approval, those conditions become part of the

Contract Documents. Copies of the ATC submittal and the Administration's ATC approval letters for each incorporated ATC shall be included in the Price Proposal.

Except for incorporating approved ATCs, the Price Proposal may not otherwise contain exceptions to or deviations from the requirements of the RFP Documents.

2.15.02.11 ATC Confidentiality

ATCs properly submitted by a Proposer and all subsequent communications regarding its ATCs will be considered confidential. If a Proposer wishes to make any announcement or disclosure to third parties concerning any ATC, it shall first notify the Administration in writing of its intent to take such action, including details as to date and participants, and obtain the Administration's prior approval to do so.

2.15.02.12 ATC Specific One-On-One Meetings

Prior to or after submission of ATCs, the Administration may conduct one-on-one meetings with a Proposer to gain information or a better understanding regarding its ATC and to discuss issues and clarifications regarding the ATC. The Administration reserves the right to disclose to all Proposers any issues raised during the one-on-one meetings. However, the Administration will not disclose any information pertaining to an individual Proposer's ATCs or other technical concepts to other Proposers.

2.15.03 Proposal Delivery Formalities

2.15.03.1 Organization of Proposal Submittals

Prospective proposers shall organize submittal of their Technical Proposal and Price Proposal to match the organization specified in this RFP. Prospective Proposers is defined as those Proposers who have met the requirements of TC 2.15.02.1

a. Separate Proposal Packages

Proposal submissions shall consist of two separate sealed packages, a Technical Proposal as described in TC Section 2.16 and a Price Proposal as described in TC Section 2.17.

b. Technical Proposal

The Technical Proposal may be submitted in container(s) of the Prospective Proposer's choice provided that the material is neat, orderly, and incapable of inadvertent disassembly. Technical Proposal shall be submitted and bound using a three (3) ring binder with all pages are numbered consecutively. Each container shall be clearly marked as follows:

Prospective Proposer's Name

Technical Proposal

Areawide Total Maximum Daily Load (TMDL) Design-Build Contract No. AX7665D82

Container ____of ____

c. Location and deadline for submittal of Technical Proposal Submittal

Technical Proposals must be delivered no later than <u>October 30, 2018 prior to</u> <u>12 noon</u> (EST). The proposal must be delivered to the following location:

> Mr. Eric Lomboy Director, Office of Procurement and Contract Management Fourth Floor, C-405 707 N. Calvert Street Baltimore, Maryland 21202

d. Number of Copies

One original and eight (8) copies of the complete Technical Proposal shall be submitted along with one (1) electronic copy PDF file on CD or flash drive and copies of the Proposer's ATCs and the Administration's ATC approval letters for each incorporated ATC.

e. Price Proposal

The Price Proposal shall be submitted on the Proposal Form supplied by the Administration and shall be delivered in a sealed envelope capable of holding $8\frac{1}{2}$ " x 11" documents without folding and clearly marked as follows:

Prospective Proposer's Name

Price Proposal

Areawide Total Maximum Daily Load (TMDL) Design-Build Contract No. AX7665D82

Container ____of ____

f. Proposal Guaranty

The Proposal Guaranty shall be delivered with the Price Proposal in a sealed business-sized envelope clearly marked as follows:

Prospective Proposer's Name

Proposal Guaranty

Areawide Total Maximum Daily Load (TMDL) Design-Build Contract No. AX7665D82

g. Location and deadline for submittal of Price Proposal Submittal

Price Proposals must be delivered no later than <u>October 30, 2018 prior to 12</u> <u>noon</u> (EST). The proposal must be delivered to the following location:

> Mr. Eric Lomboy Director, Office of Procurement and Contract Management Fourth Floor, C-405 707 N. Calvert Street Baltimore, Maryland 21202

h. Number of Copies

A single original of the Proposal Guaranty and a single original of the Price Proposal shall be submitted as specified in this section. The Lump Sum Cost Breakdown as outlined in TC Section 7.10 and the signed Stipend Agreements shall also be submitted with the Price Proposal.

2.15.03.2 Effect of Submitting Proposal

Signing of the Design-Build Proposal Submission Form and Price Proposal Form, and delivery of the Proposal represents (a) an offer by the proposer to perform the Work for the Price submitted within the time(s) specified in accordance with all provisions of this RFP and (b) the Prospective proposer's agreement to all the provisions of the RFP and Contract governing requirements and procedures applicable through execution of the Design – Build Contract. **The Technical Proposal will become part of the Design – Build Contract.**

By so signing the above referenced terms and by delivering the Proposals, the Prospective Proposer makes the following affirmative representations.

a. The Proposer has reviewed all documents and undertaken all investigations that could significantly impact the cost, timeliness, quality, or performance of the Work. Specifically, the Proposer has (a) carefully examined the RFP and all documents included or referenced therein, (b) carefully examined all available reports and data related to subsurface conditions, (c) become familiar with all applicable federal, state and local laws and regulations, (d) visited the site and made all reasonable visual investigations, and (e) correlated the information obtained from the above examinations and investigations.

- b. The Proposer has given the Administration written notice of all errors, omissions, or discrepancies in the RFP in accordance with Section TC 2.15.01.
- c. The Proposer has determined that the RFP are generally sufficient to convey an understanding of all terms and conditions that could significantly impact the cost, timeliness, quality, or performance of the Work.

2.15.03.3 Withdrawals and Resubmittals of Proposals

A proposer may withdraw Proposals after delivery, provided the request for such withdrawal is made in writing or in person before the date and time set for submission of Proposals. The proposer may revise and resubmit a Proposal so withdrawn before said date and time.

2.15.03.4 No Public Opening

There will be no public opening of Proposals. After the Proposal Date, all Proposals will be opened in the presence of two or more Administration employees and reviewed for completeness. A register of Proposals will be prepared that identifies each Proposer.

Neither the identity of any Proposer nor the register of Proposals will be publicly disclosed until after the Procurement Officer makes a determination recommending award of the Contract.

TC-2.16 TECHNICAL PROPOSALS

<u>General:</u> Technical Proposal will only be accepted from Prospective Proposers who have met the requirements of TC 2.15.02.1. The Technical Proposal submittal shall contain concise narrative descriptions and graphic illustrations, drawings, charts, plans and specifications that will enable the Administration to clearly understand and evaluate the capabilities of the Design - Build team and the characteristics and benefits of the proposed solutions. The verbiage used in each Proposal will be interpreted and evaluated by the Administration based on the level of commitment provided by the Proposer. No consideration will be given to tentative or ambiguous commitments. For example, phrases containing "we may", "we are considering", "we could" or similar language will not be considered in the evaluation process because they do not indicate a firm commitment by the Design-Builder.

No Price Information: No price information of any kind shall be included in the Technical Proposal submittal.

Proposal Organization: Organization of the Technical Proposal shall comprise four parts, meet the specified page limitation, and correspond to the outline as follows:

- o Cover Letter
- Design-Builder Capability
- o Project Understanding and Design-Build Approach
- o Legal & Financial Information

Format:

- <u>Paper</u>. The Technical Proposal submittal shall be submitted on 8.5"-by-11" paper printed back to back where practical. Charts, exhibits, and other illustrative and graphical information may be on 11"-by-17" paper, but must be folded to 8.5"-by-11", with the title block showing. An 11"-by-17" sheet will be considered only one page.
- <u>Type Font and Margins</u>. The type face of all narrative text shall be at least 12-pt, either Arial or Times New Roman font, and all page margins must be at least ¹/₂" from sides and 1" from top and bottom. All pages shall be sequentially numbered <u>not</u> including the cover letter.
- <u>Page Limits</u>. The Technical Proposal submittal shall be limited to the number of pages defined below. No page limit will be imposed on the appendices, although the size of the appendix should be kept within reason.
- Finding tools, such as tables of contents and page dividers shall be utilized to make the submittals easily usable.

2.16.01 Cover Letter (Limit 2 Pages)

The cover letter includes mandatory information requirements. The Cover Letter will not be part of the evaluations.

The cover letter must be addressed to the Procurement Officer:

Mr. Eric E. Marabello, P.E. Director, Office of Highway Development MDOT State Highway Administration

The submittal cover letter must be signed by individual(s) authorized to represent the Major Participant firm(s) and the Lead Construction firm(s). A Major Participant is defined as the legal entity, firm or company, individually or as a party in a joint venture or limited liability company or some other legal entity, that will be signatory to the Design–Build Contract with the Administration. Major Participant(s) will be expected to accept joint and several liability for performance of the Design–Build Contract. Major Participants are <u>not</u> design subconsultants, construction subcontractors or any other subcontractors to the legal entity that signs the Design–Build Contract. If the Design–Build contracting entity will be a joint venture, or some other entity involving multiple firms, all Major Participant firms involved must have an authorized representative sign the cover letter.

The cover letter shall include the following:

- a. Names, main role and license or certification information of all Major Participant firms and the Lead Construction and Design firms if not a Major Participant firm, and other firms that are now being committed to the Design– Build team. You <u>must</u> include at least your Lead Construction firm and your Lead Design firm in the Design–Build team at this time.
- b. The primary and secondary individual contacts for the Major Participant firm(s) with address, phone number, and E-mail address and shall be the same as those provided in response to the requirements of TC 2.15.02.1.
- c. Include an affirmative declaration that indicates to the best knowledge and belief of each Major Participant Firm, including the lead design firm if not a Major Participant firm, the information supplied in the Technical Proposal is true and accurate.
- d. Include a declaration that each Major Participant firm(s) and the Lead Design and Lead Construction firm, if not a Major Participant firm, are prepared to provide the necessary financial, material, equipment, labor and staff resources to perform the project.
- e. Include a declaration by the Major Participants that signatories are affirming their intent to enter into a legal organization that shall constitute the Design-Build team.
- f. Include a certification that the Design-Build Team is in compliance with State Ethics Laws prohibiting work on a matter in which a former State employee participated significantly as a State Employee for the duration of this contract.
- g. Include a declaration that no portions of the Technical Evaluation Factor sections include confidential, proprietary information or trade secrets that should not be disclosed by the State under the Access to Public Records Act, State Government Article, Title 10, Subtitle 6, Annotated Code of Maryland. Or include a declaration identifying which portions are considers confidential, proprietary information or trade secrets and provide justification why such materials, upon request, should not be disclosed after award of the contract.
- h. Include a declaration that all addenda have been received by the Proposer. The Proposer is alerted to their responsibility to confirm that all team members have received addenda. The Proposer is solely responsible to ensure that their team has the correct information.

- i. Statement including the proposed legal structure of the Design–Build team.
- j. Include a general authorization for the Administration to confirm all information contained in the Technical Proposal submittal with third parties, and indicate limitations, if any, to such authorization.

As an attachment to the cover letter and excluded from the page limitation for this section, provide documentation that the Lead Design firm has Professional Liability Insurance.

2.16.02 Design-Builder Capability: (Limit 13 Pages) – SIGNIFICANT

The Design-Builder must demonstrate their past performance on comparable projects with detailed descriptions. Information that is not detailed or relevant will not be considered acceptable. The information for each Key Staff member shall be relevant to the role and function they will perform on this project. The resumes for Key Staff must identify the function the staff member will fulfill on this project and include their role or function on relevant projects. MDOT SHA recommends that the primary and secondary contacts are key staff members.

- i. Key Staff Submit resumes of the following Key Staff, highlighting their relevant performance on similar type projects. Discuss any licenses or certifications that are relevant to the Key Staff successfully completing their role on this project. CRITICAL
 - Design-Build Project Manager Shall have a minimum of fifteen (15) years of experience. Demonstrate relevant experience in the construction and project management of highway construction projects of similar scope and complexity as this project. Emphasize Design-Build experience.
 - Project Design Manager Shall be a Maryland-registered Professional Engineer who is an owner or employee of the lead design firm and have a minimum of fifteen (15) years of experience. Demonstrate relevant experience in managing design for projects of similar scope and complexity as this project. Emphasize Design-Build experience.
 - Water Resources Engineer Shall be a registered Professional Engineer with a minimum of fifteen (15) years of experience. Demonstrate relevant experience related to water resources engineering including hydrology and hydraulic investigations, analysis, design, and permitting (including but not limited to USACE, MDE Wetland and Waterways) for projects of similar scope and complexity as this project.
 - Geotechnical Design Engineer Shall be a Maryland registered Professional Engineer with a minimum of ten (10) years of experience

in geotechnical investigations and design on projects that included work of similar scope and size.

- GIS Specialist Shall have a minimum of five (5) years of experience in the field of water resources and/or environmental science. The GIS specialist shall have documented experience with field data collection and data management. Technical experience shall include the use of ESRI's ArcGIS 9.x and ArcSDE or later.
- Construction Manager Shall have a minimum of ten (10) years of experience. Demonstrate relevant experience in managing construction activities, schedules and coordination of highway construction projects of similar scope and complexity as this project.

Resumes shall be a maximum of one (1) 8.5" x 11" page each. Any required licensure, years of experience, or educational requirement required will not be factored into the quality rating for each Key Staff; however, any Key Staff not meeting these requirements will automatically receive an **Unacceptable** rating.

ii. Firm Past Performance – SIGNIFICANT

Provide descriptions of up to six relevant projects with stormwater management and drainage construction elements that members of your Design-Build Team have completed. Projects should be of similar scope and complexity as this project and demonstrate the Design-Build Team's ability to be successful in delivering this project. Provide, at a minimum, the following:

- Project name and location
- Firm completing the work
- Owner/client including specific point of contact with telephone numbers
- Project delivery method (Design-Bid-Build, Design-Build, Construction Management at Risk, or other)
- Environmental Permits required for the project, who was the Permittee for each permit and what involvement did the Firm have in those permits
- Overall construction cost of project, as applicable, including initial contract value, final contract value, and specific reasons for difference
- Overall schedule performance, as applicable, including initial completion date, final completion date, and specific reasons for the difference
- Brief project description

• Discussion of what work, including any successful methods, approaches, and innovations, on the project is relevant to this contract and why.

Firm Past Performance shall be submitted on an 8.5" x 11" paper only.

iii. Organizational Chart – IMPORTANT

Provide an organizational chart showing the lines of communication and identifying participants who are responsible for major functions to be performed, and their reporting relationships in managing, designing, and building the Project. Identify the critical supporting elements and relationships of project management, project administration, construction management, quality control, quality assurance, safety, environmental compliance and interfaces with third parties. The organizational chart shall reflect all Key Staff and reflect the number of hours per week the Key Staff will be dedicated to this project. The chart shall not exceed one page and may be submitted on an 11" x 17" page.

2.16.03 Project Understanding and Design-Build Approach (Limit 6 Pages) – SIGNIFICANT

i. Understanding of Scope – IMPORTANT

Provide a narrative describing the Design-Builder's understanding of the Project scope. Discuss the role the Design-Builder expects Design-Builder, the Administration and/or others may have in this scope. As part of this narrative, discuss the Proposer's approach to obtaining required environmental permits for the project, to avoiding and minimizing impacts to environmental resources (such as wetlands, waters, streams, forests, species, and historic and cultural resources), and to ensuring environmental compliance during construction.

ii. Understanding of Relevant and Critical Risks – SIGNIFICANT

Discuss the Proposer's understanding of the most relevant and critical risks facing the selected Proposer and MDOT SHA in achieving the project. Describe why each risk is critical, indicate the impact the risk may have in achieving the Project Goals, and discuss the mitigation strategies the Design-Builder will implement to address the risk. Discuss the role the Design-Builder expects MDOT SHA or others may have in addressing these Project risks.

iii. Approach to Design-Build – SIGNIFICANT

Discuss the Proposer's approach to Design-Build from design initiation through construction completion. Discussion should include, but not be limited to, design and construction development; coordination and decision making; permitting; Right-of-way acquisition; design quality management; and change management.

2.16.04 Legal & Financial Information (Limit 2 Page Maximum, excluding copies of underlying team agreements)

The structure of the Legal and Financial information shall include:

- i. Design Build Team Organization. Briefly describe the proposed legal structure of the Design–Build Contractor and team, and provide copies of underlying agreement(s). Confidential price data may be excluded or eradicated from the organizational legal documents provided. Note: Copies of teaming agreements are excluded from the page count.
- ii. Liability. State whether Major Participant firm(s) who will be party to the prime Design-Build contract with MDOT SHA will have joint and several liability, and how liability is being apportioned between other firms of the Design-Build Team. Provide copies of Professional Liability Insurance for the Lead Design Firm including agreements between participants. Note: Any copies of Professional Liability Insurance and agreements are excluded from the page count.
- iii. Describe the conditions surrounding any contract (or portion thereof) entered into by a Major Participant that has been terminated by cause or convenience or which required completion by another party within the last ten years. Describe the reasons for termination and the amounts involved. Describe any debarment or suspension from performing work for the federal government or any state or local government against a Major Participant in the last ten years. Identify the owner's representative and contact information for any contracts the above applies. Indicate "None" to the any and all of the above that does not apply to the Major Participants.
- iv. Provide evidence that the Design-Build Team is capable of obtaining the Condemnation Support Performance Bond outline in TC Section 3.23.04.05 and the Stormwater Management As-Built Certification Warranty Bond outlined in TC Section 3.20.08.

Such evidence shall take the form of a letter from a surety company indicating that such capacity is anticipated to be available for the contracting entity. Letters indicating "unlimited" bonding capacity are not acceptable. The surety company providing such letter must be rated at least A- by two nationally recognized credit rating agencies or at least A-VII by A.M. Best & Company. The letter should recognize the firm's backlog and work in progress in relation to its bonding capacity.

TC-2.17 PRICE PROPOSAL

2.17.01 General

Price Proposals will only be accepted from Prospective Proposers who have met the requirements of TC 2.15.02.1. Price Proposals must be submitted using the Proposal Form included in this RFP.

Alternate bids utilizing foreign steel will not be allowed for this contract.

2.17.02 Stipulated Sum

The sum of the Lump Sum for Right-of-way Acquisition, Lump Sum for TMDL Credit Design and Lump Sum for TMDL Credit Construction **shall be \$50,000,000.00**.

2.17.02.1 Lump Sum for Right-of-way Acquisition

The Lump Sum for Right-of-way Acquisition shall be entered by the Proposer in the Schedule of Prices on page 2 of 43 in the Proposal Form of this Request for Proposals. The Lump Sum for Right-of-way Acquisition shall include all services and preparation of all documentation for all Project ROW acquisition, easement acquisition, and related relocation assistance for the Project. Offer of Just Compensation paid to property owners or posted in court for any needed Right-ofway are included in this Lump Sum.

2.17.02.2 Lump Sum for TMDL Credit Design

The Lump Sum for TMDL Credit Design shall be entered by the Proposer in the Schedule of Prices on page 2 of 43 in the Proposal Form of this Request for Proposals. Lump Sum for TMDL Design shall include all engineering, design, research investigation, labor, equipment and materials, and all incidentals necessary to complete the design and permitting/approvals of this project.

2.17.02.3 Lump Sum for TMDL Credit Construction

The Lump Sum for TMDL Credit Construction shall be entered by the Proposer in the Schedule of Prices on page 2 of 43 in the Proposal Form of this Request for Proposals. Lump Sum for TMDL Credit shall include all construction, labor, equipment and materials, and all incidentals necessary to complete the construction of this project.

2.17.03 Wetland and/or Waterway Impact Reduction Incentive

See Section 3.20.03.01.08

2.17.04 Wetland and/or Waterway Impact Mitigation Incentive

See Section 3.20.03.01.09

2.17.05 Forest Impact Reduction Incentive

See Section 3.20.04.02

2.17.06 Forest Mitigation Incentive

See Section 3.20.04.03

2.17.07 Erosion Sediment Control Incentive/Liquidated Damages Payment

There is no Erosion Sediment Control Incentive/Liquidated Damages Payment on this project.

2.17.08 Price Proposal Irrevocable

The Contractor's prices are irrevocable for 120 days following receipt of the Price Proposal or Best and Final Offer.

2.17.09 Proposal Guarantee

The Contractor's proposal guarantee shall represent 5% of the Price Proposal amount in accordance with the provisions of GP 2.07.

2.17.10 Liquidated Damages

In the event a complete project is not provided by the calendar date, a liquidated damage will be charged in accordance with the provisions of GP 8.09. The dollar amount of liquidated damages is stated on page 40 of 43 in the Proposal Form of the Request for Proposals. The Administration will be the sole approving authority in determining when the project is considered a usable facility.

2.17.11 Number of Credit Acres

The Proposer shall establish the Number of Credit Acres their project will achieve, and it shall be equal to or greater than 500 credit acres. The Proposer shall enter the Number of Credit Acres in the area noted on page 40 of 43 in the Proposal Form of this Request for Proposals.

TC 2.18 PROPOSAL EVALUATION AND SELECTION

2.18.01 Best Value Process

The Technical Proposal will be evaluated on the pass/fail and technical evaluation factors identified in TC 216. An evaluation committee (Committee) will determine the pass/fail status and overall technical rating of each Proposal. Once the overall technical rating is determined for each Technical Proposal, the Price Proposal results will be provided to the Committee. The Committee will then utilize the ratings for the Technical Proposals, and the Price Proposals to perform a tradeoff analysis. The Evaluation Committee will prepare a recommendation to the Selection Official indicating which Proposal is the most

advantageous to the State (i.e., represents the best value). The Selection Official, together with the Selection Committee, will then assess the Evaluation Committee's recommendation and make a final determination as to which Proposal is the most advantageous to the State considering the technical and price factors set forth in this document.

When determining which Proposer's submittal is most advantageous to the State, the relative importance of the Evaluated Price is greater than the Technical Proposal

2.18.02 The Technical Proposal – Evaluation Factors

The following elements of the Technical Proposal will be evaluated and rated on their content, accuracy and presentation.

- Design-Builder Capability **SIGNIFICANT**
- Project Understanding and Design-Build Approach **SIGNIFICANT**

The relative importance of the technical evaluation factors and subfactors, when noted, will be weighted based on the following criteria:

- Critical Factors or subfactors weighted as Critical are approximately three times the relative importance of Important.
- Significant Factors or subfactors weighted as Significant are approximately two times the relative importance of Important.

While some factors and subfactors may have more relative importance than others, the proposers are cautioned not to overemphasize certain factors and subfactors at the expense of other factors and subfactors.

The following will be evaluated on a Pass/Fail basis and will be based on the clarity and completeness of information provided, as well as the stability and collective capabilities of the Design - Build team relative to this Project to perform as an integrated team. Each Proposal must achieve a rating of "Pass" on any "Pass/Fail" factor listed in Section 2.16 to receive further consideration. Failure to achieve a "Pass" rating on any "Pass/Fail" factor will result in the Proposal being rated UNACCEPTABLE, the Price Proposal will not be rated and the Proposer will be disqualified.

• Legal & Financial Information

2.18.02.01 Other

The pass/fail requirements include provision of all required forms included in the Proposal Package, properly completed and signed (if required).

2.18.02.2 Technical Proposal Evaluation Committee

The Administration will assemble Evaluation Teams and an Evaluation Committee consisting of key staff from appropriate offices within the Administration. The Evaluation Teams and Evaluation Committee will review the Technical Proposals to verify that all requirements of the RFP have been met, and to evaluate the proposals based on the evaluation factors.

2.18.02.3 Evaluation Process

Each Technical Proposal will be broken down into individual Evaluation Factor sections. Each Evaluation Team will only be given the section or sections for each specific Evaluation Factor or Factors they are rating and not the Technical Proposals in its entirety. Evaluations will be limited to the information provided in the specific Evaluation Factor section and will not consider information provided in other sections. Each Leader of the Evaluation Team will be part of the Evaluation Committee with other appropriate key staff within the Administration. This Evaluation Committee will review each Evaluation Factor and determine an overall Technical Rating for each Proposer.

2.18.02.4 Evaluation Results

The technical evaluation factors and the overall Technical Proposal will be rated by and adjectival (qualitative/descriptive) method. The following adjectival ratings shall be used in evaluation of each technical evaluation factor and the overall technical rating of the Proposal:

EXCEPTIONAL: The Proposer has demonstrated a complete understanding of the subject matter and the Proposal advances the Project goals to an exceptional level. The Proposal communicates an outstanding commitment to quality by a highly skilled team in all aspects of the Work. The Proposal outlines a strong approach to mitigating project specific risks and inspires confidence that all contract requirements will be met or exceeded. The Proposal contains significant strengths and minor weaknesses, if any.

GOOD: The Proposer has demonstrated a strong understanding of the subject matter and the Proposal advances the Project goals to a high level. The Proposal communicates a commitment to quality by an experienced team in all aspects of the Work. The Proposal defines an approach to mitigating project specific risks with little risk that the Proposer would fail to meet the requirements of the contract. The Proposal contains strengths that outweigh weaknesses.

ACCEPTABLE: The Proposer has demonstrated an adequate understanding of the subject matter and the Proposal meets the Project goals. The Proposal communicates a commitment to quality Work by a qualified team. Project specific risks have been identified and the Proposer

has a reasonable probability of successfully completing the Work. The Proposal contains strengths that are offset by weaknesses.

UNACCEPTABLE: The Proposer has not demonstrated an understanding of the subject matter and the Proposal presents an approach which does not address the goals of the Project. The Proposal fails to meet stated requirements and/or lacks essential information. The commitment to quality is not adequate, with Work performed by unqualified or unproven teams. Project specific risks are not addressed, and the Proposal generates little confidence that the Project requirements can be met. The Proposal contains deficiencies, significant weaknesses and minor strengths, if any.

In assigning ratings, the Administration may assign plus (+) or minus (-) suffix to further differentiate the strengths or limitations within the technical ratings of **EXCEPTIONAL**, **GOOD**, and **ACCEPTABLE** to more clearly differentiate the Proposals.

The term "weakness," as used herein, means any flaw in the proposal that increases the risk of unsuccessful contract performance. A significant weakness in the proposal is a flaw that appreciably increases the risk of unsuccessful contract performance. The term "deficiency" means a material failure of a proposal to meet an RFP requirement or a combination of significant weaknesses in a proposal that increases the risk of unsuccessful contract performance to an unacceptable level.

Any Proposal that receives a rating of **UNACCEPTABLE** in one or more technical evaluation factors will receive an overall Technical Proposal rating of **UNACCEPTABLE**.

The Technical Proposal will become part of the contract documents and all ideas provided to the Administration are expected to be included in the Price Proposals. The Administration or successful proposer may use ideas and approaches included in the Technical Proposal excluding proprietary or protected information.

2.18.03 Evaluation of Price Proposals

Price evaluations will be performed based on the Proposal Prices as reflected in the Schedule of Prices, the Cost Breakdown as defined in TC Section 7.10, price accuracy, completeness and reasonableness.

Each Price Proposal shall specify the Lump Sum for Right-of-way Acquisition, Lump Sum for TMDL Credit Design, and Lump Sum for TMDL Credit Construction for which Work will be performed according to the RFP and the Number of Credit Acres as discussed in TC 2.17. In addition, a lump sum breakdown will be required as part of the Price Proposal submittal as defined in TC 7.10. The lump sum breakdown shall be submitted in a format of the Design-Build Teams choice.

The Administration reserves the right to reject any Proposal if it determines that the Price Proposal is unacceptable, including a determination that the Proposal is

significantly unbalanced or front end loaded to the potential detriment of the Administration.

An unbalanced Proposal is considered to be one (a) which is front-loaded or (b) for which the line item amounts or amounts shown in the Cost Breakdown do not reflect reasonable actual costs and/or a reasonable proportionate share of the Proposer's anticipated profit, overhead costs, and other indirect costs which are anticipated for the performance of the items in question.

A Price Proposal shall be deemed unacceptable if the Administration determines, in its sole discretion that it fails to conform to the conditions of the RFP in any manner. A Price Proposal may be unacceptable if it:

- A) Is significantly unbalanced relative to the scope of Work,
- B) Does not provide all information in conformance with the RFP, and/or
- C) Contains inaccurate, incomplete, and/or unreasonable prices on the Cost Breakdown.

Once the Price Proposal is determined to be accurate, complete, and reasonable, the Administration will determine the Evaluated Price Proposal amount. This Adjusted Price Proposal will take into account not only the Price Proposal submitted by the Proposer, but the Number of Credit Acres entered by the proposer on page 40 of 43 of the Proposal Form package. The Evaluated Price Proposal, as determined in the method described below, shall be utilized in the Determination of the Successful Proposer as described in TC 2.18.08.

The stipulated sum of \$50,000,000.00 will be divided by the Number of Credit Acres entered by the proposer on page 40 of 43 of the Proposal Form package to determine the Evaluated Price Proposal. For example, the Evaluated Price Proposal for a Price Proposal with a Number of Credit Acres of 500-acres would be as follows:

Evaluated Price Proposal = \$50,000,000.00/500-acres = \$100,000.00 per acre

The preceding formula will be used to determine the Evaluated Price Proposal. The Contract award amount and final payment to the Design-Build Team will be based upon the aggregate amount in the Price Proposal and as outlined in TC Section 7.

2.18.04 Communications

The Administration may engage in communications with the Proposers after receipt of Proposals, allowing Proposers to provide clarifications to their Proposals or otherwise to address issues that might prevent the Proposal from being placed in the Competitive Range. This process will be initiated by delivery of a written request from the Administration to the Proposer identifying the information needed and a date and time by which the information must be provided. The Proposer shall provide the requested information in writing by the date and time indicated. If the requested information is not timely received, the Proposer's ratings may be adversely affected and/or Proposal may be declared unacceptable.

The Administration may waive technical irregularities in the proposal of the Proposer that does not alter the quality or quantity of the information provided.

2.18.05 Competitive Range

The term "Competitive Range" means a list of the most highly rated Proposals, based on initial Technical Proposal ratings and evaluations of Price Proposals that are judged by the Procurement Officer to be reasonably susceptible of being selected for award. The Competitive Range is based on the rating of each Technical Proposal and evaluation of each Price Proposal against all evaluation criteria.

Proposals that would not be included in the Competitive Range and would be excluded from further consideration include:

- A) Any Proposal that, even after review of supplemental information or clarification provided by the Proposer in response to an Administration request does not pass the pass/fail evaluation factors;
- B) A Proposal that, after the initial evaluation, is rated lower than "ACCEPTABLE-" for any technical evaluation factor; and/or
- C) Any Proposal that includes a Price Proposal that is considered Unacceptable.

The Administration will determine the Competitive Range after a careful analysis of the Technical and Price Proposals.

2.18.06 Discussions

The Administration reserves the right to make an award without Discussions. However, the Administration may, at its sole discretion, conduct Discussions (that is written or oral exchanges) with the Proposers in the Competitive Range, with the intent of allowing the Proposers to revise their Proposals.

2.18.06.1 Purpose

If the Administration decides to engage in Discussions, the areas of Discussions may include the following:

- A) Attempting to resolve any uncertainties and obtaining any significant additional understanding concerning the Proposal;
- C) Resolving any suspected mistakes by calling them to the attention of the Proposers as specifically as possible without disclosing information concerning other competing Proposals or the evaluation process;
- D) Providing the Proposers a reasonable opportunity to submit any other supplemental information to their Proposals;
- E) Facilitating execution of a contract that is most advantageous to the State.

2.18.06.2 Procedures

The following specific procedures will apply to Discussions:

- A) Discussions will only be conducted with Proposers in the Competitive Range. If Discussions are held, they will be held with all Proposers in the Competitive Range;
- B) Information disclosed by Proposers in the Competitive Range during Discussions will not be made public until after execution of the Contract;
- C) Discussions may be written and/or oral, and more than one round of Discussions may be conducted; and
- D) No disclosure will be made of any information derived from a Proposal of, or from discussions with, another Proposer.
- 2.18.06.3 Prohibited Contact

During Discussions, Administration personnel involved in the acquisition shall not engage in the following conduct:

- A) Revealing a Proposer's technical solution, including unique technology, innovative and unique uses of commercial items, or any information that would compromise a Proposer's intellectual property to another Proposer;
- B) Revealing a Proposer's price without that Proposer's permission. However, the Administration may inform a Proposer that its price is considered by the Administration to be unbalanced based upon the Scope of Work and may provide information regarding the analysis supporting that conclusion;
- C) Revealing the names of individuals providing references information about a Proposer's past performance; or
- D) Revealing selection information in violation of the Administration's procurement policies and the laws of the State.

2.18.07 Proposal Revisions

Although the Administration reserves the right to hold Discussions and request proposal revisions and Best and Final Offers (BAFO) when in the best interest of the State, the Administration is under no obligation to do so. The Administration may make its selection and award based on the initial Proposals as submitted.

At the conclusion of Discussions (if held), the Administration will request a proposal revision or BAFOs from all Proposers in the Competitive Range to provide Proposers an opportunity to revise their Proposals (both the Technical Proposal and Price Proposal), including correction of any weaknesses, minor irregularities, errors, and/or Deficiencies

identified to the Proposers by the Administration following initial evaluation of the Proposals. The request for proposal revision or BAFOs will allow adequate time, as determined by the Administration, for the Proposers to revise their Proposals. Upon receipt of the proposal revisions or BAFOs, the process of evaluation will be repeated. The process will consider the revised information and re-evaluate and revise ratings as appropriate.

The Administration may require more than one series of proposal revision submissions followed by a request for a BAFO submission, but only if the Administration makes a written determination that it is in the State's best interest to conduct additional Discussions following receipt of proposal revisions or to change the Administration's requirements and require another BAFO submission.

2.18.08 Determination of Successful Proposer

In accordance with COMAR 21.05.03.03(F), award of the Contract to the responsible offeror whose proposal is determined to be the most advantageous to the State, considering price and the evaluation factors set forth in the Request for Proposals. The Administration has determined that the most advantageous to the State will be the Proposers who have met the requirements of TC 2.15.02.1 with the best combination of the Technical and Price evaluations. When determining which Proposer's submittal is most advantageous to the State, the relative importance of the Evaluated Price is greater than the Technical Proposal. Once the overall technical evaluations have been completed and the price revealed to the Evaluation Committee, a fully integrated trade off analysis will be performed by the Evaluation Committee. In performing this trade off analysis, the Evaluation Committee, chaired by the Procurement Officer, will consider the facts and circumstances of the procurement and utilize its technical judgment and discretion in considering strengths, weaknesses, and deficiencies of each proposal to determine a recommendation of most advantageous to the State. This recommendation will then be presented to the Selection Officials who, along with the Selection Committee, will utilize their technical judgment and discretion to make a final determination of most advantageous to the State considering the all technical and price factors set forth in the Request for Proposals.

In order to be considered for award of the Contract, a Proposal must pass all the pass/fail factors.

The Technical Proposal will become part of the contract documents and all concept ideas provided to the Administration are expected to be included in the Price Proposal, final plan, design and construction phases. The Administration or successful proposer may use ideas and approaches excluding proprietary or protected information.

NOTE: All materials, conferences, proposals and other matters related to this project shall remain confidential until the contract is executed with the successful DB Team.

TC-2.19 AWARD AND EXECUTION OF CONTRACT

All conditions of award and execution procedures will be in accordance with GP-Section 3 of the Specifications.

The Design-Builder will be given Notice to Proceed after Execution of the Contract has been completed. At this point, additional field investigation may continue, and design work needed for NEPA site specific approval may proceed with payment to be made as outlined in TC Section 7.11.

The Administration understands that the successful Proposer will need to start work activities as soon as possible after notification of selection and prior to the issuance of the Notice to Proceed. The Administration understands this approach is an effort to maximize the available time for construction activities. The Administration also recognizes the benefits to the public by providing an opportunity to accelerate project activities and project completion. It is reasonable that these design activities should not place the Design-Builder at risk should the Administration not award the contract and issue a Notice to Proceed for events outside of the control of the Design-Builder.

The Administration will diligently process contract documents and procedures to Award and issue a Notice to Proceed within the shortest time frame possible. In the event that the Administration does not issue a Notice to Proceed to the selected Proposer for reasons beyond the control of the Proposer, the Administration will reimburse all actual documentable design costs incurred by the Design-Builder after notification of selection. To receive reimbursement, the Design-Builder must submit all related work product including, but not limited to, design calculations, plans, surveys, boring data, updated electronic files, <u>personnel time sheets</u> and other materials to the Administration for its use.

Actual construction work may not begin until the additional requirements specified elsewhere in this RFP have been satisfied, including but not limited to receipt of FHWA NEPA site(s) approval, permits, right-of-way acquisition, and pre-construction conference.

TC-2.20 STIPEND

The Administration understands that firms invited to submit Price Proposals on Design-Build projects may incur higher than normal Price Proposal preparation costs in their engineering effort to submit responsive Price Proposals for the project. Such efforts are likely to involve geotechnical investigations, development of concept design plans, cross sections, field surveys, stormwater management investigation, preliminary storm drain design, development of extensive design details to establish materials and quantities to prepare and submit a price.

A stipend in the amount of \$200,000.00 will be paid to each Proposer meeting at least one of the following terms and conditions:

- (a) The Proposer (including any BAFO) was in the Competitive Range and was not the most advantageous to the State or was not selected for award;
- (b) The Proposer was selected for award, but the Contract was not executed or it was terminated by MDOT SHA for its convenience prior to issuance of a notice to proceed for events outside the control of the Design-Builder and the Design-Builder is not seeking reimbursement for design activities undertaken after notice of selection;

(c) The Proposer was not in the Competitive Range, but it submitted an Alternative Technical Concept (ATC) approved by the Administration and that the Administration wishes to utilize the ATC in the final design.

Those firms invited to submit Price Proposals will be required to sign a contract with the Administration for payment of the stipend in exchange for electronic copy and hard copy of all documents used to develop the Price Proposal. The firm submitting the Proposal considered the most advantageous to the State shall not be eligible to receive the stipend.

In payment for the services covered by this Agreement, the Design-Build Team agrees that all materials, electronic files, marked up drawings, cross sections, quantity lists and other material used in the development and submission of the Price Proposal will become the property of the Administration and may be used in any manner at their discretion without any additional compensation to the Design-Build Team.

Three completed, signed originals of the enclosed Agreement must be submitted to Mr. Eric E. Marabello, P.E., Director, Office of Highway Development, in the time frame outlined in the Stipend Agreement, Section 2.2(a).

One original invoice signed (in blue ink) and two copies along with supporting engineering materials noted above must be submitted to Mr. Eric E. Marabello, P.E., Director, Office of Highway Development, in the time frame outlined in the Stipend Agreement, Section 2.3.

As noted in the Stipend Agreement, Section 2.3, Invoices and supporting engineering work for stipend payment <u>shall not</u> be submitted until notification from MDOT SHA that the contract has been awarded or there has been a cancellation of the procurement. Invoices must be received within 30 days of said notification by MDOT SHA to be honored for payment. Invoices received prior to notification from MDOT SHA will not be processed for payment.

Invoices shall contain the following information:

Date -

Invoice # - created by the Design-Build Team

Bill To: Maryland Department of transportation State Highway Administration 707 N. Calvert Street Baltimore, MD 21202

Federal Tax I.D. number

Remittance Address

FMIS # - AX766B5D

Contract Description – Areawide Total Maximum Daily Load (TMDL) Design-Build

Construction # - AX7665D82

Payment Amount - \$200,000.00

Description of Work: example: "payment for Design-Build team to perform preliminary design work to prepare a proposal for contract"

STIPEND AGREEMENT

Contract No. AX7665D82 Project Description: Areawide Total Maximum Daily Load (TMDL) Design-Build

THIS STIPEND AGREEMENT (the "Agreement") is made and entered into as of the _____ day of ______, 201_, by and between the STATE OF MARYLAND, acting by and through the Maryland Department of Transportation State Highway Administration (the "MDOT SHA"), and ______ ("Proposer"), with reference to the following facts:

A. On June 26, 2018, the MDOT SHA issued a Request for Proposals ("RFP") for design and construction of the Areawide Total Maximum Daily Load (TMDL) Design-Build Project ("Project"), pursuant to procurement authority granted in State Finance and Procurement Article of the Annotated Code of Maryland and the Code of Maryland Regulations ("COMAR"), Title 21. The Project will be owned and operated by the Maryland Department of Transportation State Highway Administration (MDOT SHA or Administration), which owns all non-tolled state highways and bridges in the State of Maryland ("State"). The Administration is responsible for administration of design and construction of the Project.

B. The RFP requires each Proposer to complete and deliver a Stipend Agreement to the MDOT SHA within the time frame noted below in 2.2 (a).

NOW, THEREFORE, Proposer hereby agrees as follows:

1. Work Product.

- **1.1** The MDOT SHA hereby retains Proposer to prepare and submit, in response to the RFP a price proposal that conforms in all material respects to the requirements of the RFP, as determined by the MDOT SHA, are timely received by the MDOT SHA, and satisfy the provisions set forth in the RFP.
- **1.2** All work performed by Proposer and its team members pursuant to this Agreement shall be considered work for hire, and the Work Product (as defined below) shall become the property of the SHA without restriction or limitation on its use. Neither Proposer nor any of its team members shall copyright any of the material developed under this Agreement.
- **1.3** Proposer agrees that all Work Product is, upon receipt by the MDOT SHA, the property of the MDOT SHA. The term "Work Product" shall mean all submittals made by Proposer during the RFP process, including the Proposal, exchanges of information during the pre-proposal and post-proposal period. However, the term "Work Product" shall specifically exclude patented rights in previously existing proprietary technology.
- 1.4 In consideration for the MDOT SHA's agreement to make payment hereunder, Proposer agrees that the MDOT SHA shall be entitled to use all Work Product, without any further compensation or consideration to the Proposer, in connection with the RFP, the Contract Documents, the Project and future procurements by the MDOT SHA. Notwithstanding the foregoing, MDOT SHA

- **1.5** shall not be entitled to use information submitted by Proposer to the MDOT SHA in which the MDOT SHA determines is exempt from disclosure under the Maryland Public Information Act ("PIA"), Title 10, Subtitle 6, Part III of the State Government Article of the Annotated Code of Maryland, unless the RFP otherwise provides.
- **1.6** The MDOT SHA acknowledges that the use of any of the Work Product by the MDOT SHA or the Design-Builder is at the sole risk and discretion of the MDOT SHA and the Design-Builder, and shall in no way be deemed to confer liability on the unsuccessful Proposer.

2. <u>Compensation And Payment.</u>

- **2.1** Compensation payable to Proposer for the Work Product described herein shall be \$200,000.00 if any of the following conditions are met:
 - (a) The Proposer was in the competitive range and was not the most advantageous to the State or was not selected for award;
 - (b) The Proposer was selected for award, but the Contract was not executed or it was terminated by MDOT SHA for its convenience prior to issuance of a notice to proceed for events outside the control of the Design-Builder and the Design-Builder is not seeking reimbursement for design activities undertaken after notice of selection;
 - (c) The Proposer was not in the competitive range, but it submitted an Alternative Technical Concept (ATC) approved by the Administration and that the Administration wishes to utilize the ATC in the final design.
- **2.2** In its sole discretion, the MDOT SHA may pay compensation to Proposer, in an amount to be determined by the MDOT SHA, for the Work Product described herein under the following conditions:
 - (a) For any Proposer meeting the criteria identified in Section 2.1, above.

Any amount paid under this subparagraph (a) will not exceed \$200,000.00 and will be subject to audit of the costs incurred by the Proposer in preparing its Technical Proposal and Price Proposal. Auditors shall have access to all books, records, documents and other evidence and accounting principles and practices sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred. Failure of the Proposer or its team members to maintain and retain sufficient records to allow the auditors to verify all or a portion of the claim or to permit the auditors access to the books and records of Proposer and its team members shall constitute a waiver of the right to be paid a stipend and shall bar any recovery hereunder.

Any Proposer wishing to apply for a stipend under this subparagraph (a) shall submit the completed Agreement to the MDOT SHA concurrently with the price proposals being submitted. Eligibility of receipt of a stipend is dependent upon

meeting the conditions set forth in Section 2.1. of this Agreement and TC Section 2.14 of the RFP.

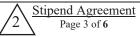
- (b) If the procurement is cancelled prior to the Proposal Due Date, Proposers will be provided the opportunity, at their option, of delivering to the MDOT SHA A the Work Product of their Proposal preparations to date. There is no specific format required for such Work Product. Those Proposers that choose to deliver their Work Product may be paid an amount that the MDOT SHA deems to be appropriate consideration for the Work Product. No portion of the stipend amount will be paid in the event a Proposer chooses not to deliver its Work Product. Any amount paid under this subparagraph (b) will not exceed the amount identified in Section 2.1 and will be subject to the audit criteria in Section 2.2 (a).
- 2.3 Any payment of compensation owing hereunder will be made (i) within 30 days after receipt of a proper invoice submitted to the MDOT SHA under this Section 2.3 or (ii) if an award is made. Such invoice and supporting engineering work shall not be submitted until one business day after the earlier to occur of (a) notice by MDOT SHA that award of contract has occurred, or (b) cancellation of the procurement. Invoices must be received within 30 days of said notification by MDOT SHA to be honored for payment.

3. <u>Indemnities.</u>

- **3.1** Subject to the limitations contained in Section 3.2, Proposer shall indemnify, protect and hold harmless the MDOT SHA and its directors, officers, employees and contractors from, and Proposer shall defend at its own expense, all claims, costs, expenses, liabilities, demands, or suits at law or equity arising in whole or in part from the negligence or willful misconduct of Proposer or any of its agents, officers, employees, representatives or subcontractors or breach of any of Proposer's obligations under this Agreement.
- **3.2** This indemnity shall not apply with respect to any claims, demands or suits arising from use of the Work Product by the MDOT SHA or its contractors.

4. <u>Compliance With Laws.</u>

4.1 Proposer shall comply with all federal, state, and local laws, ordinances, rules, and regulations applicable to the work performed or paid for under this Agreement and covenants and agrees that it and its employees shall be bound by the standards of conduct provided in applicable laws, ordinances, rules, and regulations as they relate to work performed under this Agreement. Proposer agrees to incorporate the provisions of this paragraph in any subcontract into which it might enter with reference to the work performed pursuant to this Agreement.



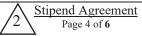
- **4.2** The Proposer agrees (a) not to discriminate in any manner against an employee or applicant for employment because of race, color, religion, creed, age, sex, marital status, national origin, ancestry or disability of a qualified individual with a disability; (b) to include a provision similar to that contained in subsection (a) in any subcontract except a
- **4.3** subcontract for standard commercial supplies or raw materials; and (c) to post and to cause subcontractors to post in conspicuous places available to employees and applicants for employment, notices setting forth the substance of this clause.

5. <u>Assignment.</u>

Proposer shall not assign this Agreement without the MDOT SHA's prior written consent. Any assignment of this Agreement without such consent shall be null and void.

6. <u>Miscellaneous.</u>

- 6.1 Proposer and the MDOT SHA agree that Proposer, its team members, and their respective employees are not agents of the MDOT SHA as a result of this Agreement.
- 6.2 All words used herein in the singular form shall extend to and include the plural. All words used in the plural form shall extend and include the singular. All words used in any gender shall extend to and include all genders.
- **6.3** This Agreement, together with the RFP, as amended from time to time, the provisions of which are incorporated herein by reference, embodies the entire agreement of the parties with respect to the subject matter hereof. There are no promises, terms, conditions, or obligations other than those contained herein or in the RFP, and this Agreement shall supersede all previous communications, representation, or agreements, either verbal or written, between the parties hereto.
- 6.4 It is understood and agreed by the parties hereto that if any part, term, or provision of this Agreement is by the courts held to be illegal or in conflict with any law of the State of Maryland, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provisions to be invalid.
- 6.5 This instrument may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.
- **6.6** This Agreement shall be governed by and construed in accordance with the laws of the State of Maryland.



IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

STATE OF MARYLAND by MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

WITNESS/ATTEST:	Approved for Execution:
	Authorized Signature
	Director, Office of Highway Development
	Date:
Approved as to form and legal sufficiency:	

Assistant Attorney General

WITNESS/ATTEST:	[Signature for Corporations/LLCs]
	Proposer Name
	By(Seal)
	Title:
Printed Name	Printed Name
	Federal ID # or Social Security #

TC SECTION 3 SCOPE OF WORK FOR DESIGN-BUILD TERMS AND CONDITIONS

ADD: After section TC 3.04

TC 3.05 DESIGN-BUILD - DESIGN AND CONSTRUCTION SCOPE OF SERVICE

This project includes, but is not limited to the following items of work, which the Design-Build Team shall perform and provide. This section sets forth provisions that are design and construction related; however, this section also impacts construction activities and other work.

Specific design and construction criteria are discussed separately following this section.

3.05.01 General Requirements

The Design-Build Team shall complete all design and construction work in two phases, Phase IV - Final Design and Phase V – Partnering during design and construction, Review Shop Drawings, Revisions, Redesign Under Construction, As-Built Plans and provisions for expert court testimony.

The Design-Build Team shall provide the services and perform tasks described in this Request for Proposals in compliance with the policies and procedures of the Administration and requirements set forth in "Volume II -<u>Specifications for Consulting Engineers' Services</u>," dated April 1986, Sections as follows:

- A) Section V Highway Design (Phase IV)
- B) Section VI Structure Design (Phase IV & V) Parts I through III
- C) Section VII Surveys and Plats (Phase IV)
- D) Section VIII Traffic Engineering (Phase IV)
- E) Section IX Landscape Architecture
- F) Section XI Critical Path Method

The Design-Build Team shall comply with all Federal, State and local laws, ordinances and regulations applicable to the activities and obligations associated with this project.

3.05.02 Design Personnel Identified in Proposal

The designer and design subcontractors shall utilize the key personnel identified in their Technical Proposal to manage the project and supervise engineers and technicians in completing the design in a timely manner to permit construction activities. **Changes in key staff identified in the**

SCOPE OF WORK FOR DESIGN-BUILD

Technical Proposal must be approved in writing by the Administration, and replacement personnel must have equal or better qualifications than the key personnel identified in the proposal. The format for replacement staff resumes must be in the same format as required for the Technical Proposal including requirements thereof. The Administration shall be the sole judge as to whether replacement staff members are acceptable.

3.05.03 Qualified

The Design-Build Team shall have experienced personnel qualified in the development of plans, specifications and estimates for the following: Highway Design; Hydrologic/Hydraulic Engineering (including stormwater management, erosion & sediment control); Structural Engineering; Geotechnical/Pavement Engineering; Arboriculture and Landscape Architecture including roadside planting, SWM planting and Reforestation; Traffic Engineering including signing, marking, lighting, signalization, and traffic control. The Design-Build Team shall be knowledgeable in coordinating utility designs, utility connections, working with other agencies and the public as outlined in TC 3.15 and TC 3.21.

3.05.04 Design Constraints

The Design-Build Team shall construct the project within available Right-of-way. This includes the final Project, as well as any and all work required to maintain drainage and traffic during construction (including detour roads) and any and all work required to control erosion and sediment laden water. The Design-Build Team may have to use features not shown on the Concept Plans to keep work in the Right-of-way, including but not limited to mechanically stabilized embankment slopes, retaining walls, drainage pipes, etc.

3.05.05 Design Exceptions

Any elements of design that fall below the design standards listed in TC 3.08 will require a design exception or design waiver.

The Design-Build Team shall submit the design exception or waiver request to the Administration's Director, Office of Highway Development, and receive written approval before proceeding with the design. Requests for design exceptions or waivers that affect construction underway or complete shall not be a basis for approval of the exception.

The request will explain and justify the use of the proposed design and include the following information (at a minimum):

- A description of existing conditions, including existing design values and design speeds.
- A description of AASHTO or other design standards that would normally be applied.
- A description of the actual design values proposed.

SCOPE OF WORK FOR DESIGN-BUILD

- A description of R/W impacts, environmental considerations or other factors that justify the exception.
- A 3-year accident history within the area an exception is being sought.
- A description of any potential mitigating features.

The Administration reserves the right to deny design exceptions or waivers that, in its judgment, are unsafe, otherwise contrary to normal practice, and/or inconsistent with the project or community goals.

3.05.06 Quality of Design and Construction

3.05.06.1 Design Quality Control Plan

The Design-Build Team shall develop a Design Quality Control Plan (DQCP). The DQCP must be a complete and clear plan to achieve a high quality design, including all related elements and lower tier subcontractors/Design-Build Teams. The DQCP shall present both the overall organization plan for design quality control and detailed plan elements to meet the CPM requirements for this project. The DQCP must include an organization structure and reporting requirements that demonstrate that quality control personnel have sufficient independence to allow them to be primarily concerned with quality, as opposed to the schedule and budget. As a minimum, the DQCP shall include calculations, plans, specifications, design coordination, construction coordination for material activity and document control.

The Design-Build Team must adhere to the approved DQCP throughout the duration of the project.

<u>The DQCP must be submitted and approved by the Administration prior to any</u> <u>design submittal being submitted to the Administration for review.</u>

3.05.06.2 Responsibility of Design-Build Team

The Design-Build Team shall be fully responsible for performing a complete, coordinated, economical, timely, fully functional quality design, including survey and geotechnical elements, all in compliance with the RFP. The Design-Build Team shall follow the DQCP and receive written authorization from the Administration for modification to the plan. The Design-Build Team shall request from the Administration, in writing, all exceptions to the plan, and the Administration will respond in a timely fashion to each request in writing.

The Design-Build Team shall include a complete check of all design and other calculations, plans and specifications in this plan. This check shall include both the overall concept and various element coordination check and the detail check of the calculations for each plan and specification. The design and the check shall be performed by experienced design professionals, licensed in the State of Maryland that have not participated in any of the

design up to the checking process. These individuals may be employed either by the Designer or by an independent design firm other than the Design-Build Team.

All plans and specifications required for construction of a work element shall be checked prior to their transmittal to the Administration.

The Administration may require that the Design-Build Team provide checked calculations to the Administration for specific elements of the design prior to approving the design. The Administration will endeavor to provide the Design-Build Team with written requests for such submittals at least 7 days prior to the date the Administration requires the submittal. The Administration may request that checked calculations be submitted on demand. In such instances, the Design-Build Team shall provide the checked calculations immediately.

The checked calculations shall be submitted to the Administration with the other Record Documents submitted at the appropriate milestone reviews.

3.05.07 Calculation Certification

The Design-Build Team shall provide the following certifications concerning the calculations:

3.05.07.1 Designer

Within 30 days of the Notice of Award the corporate officer responsible for quality for the Design-Build Team shall certify that the calculations, plans, specifications and other technical documents for which they are responsible shall be prepared in conformance with the DQCP.

3.05.07.2 Checker

Within 30 days of the Notice of Award, the corporate officer responsible for quality for the Design-Build Team and all organization(s) that will check the calculations shall certify, in writing, that the design check shall be performed in conformance with the DQCP.

3.05.07.3 Transmittals

On the transmittal for each submittal of calculations, plans, specification, shop drawings, as-builts and other technical documents, the Design-Build Team and the checker shall certify that the documents were prepared and checked in conformance with the DQCP.

3.05.07.4 Conclusion of Work

At the conclusion of the Work and with the transmittal of the Record Documents to the Administration, the corporate officer responsible for quality for the Design-Build Team and all organizations that have checked the documents shall sign, seal, and certify in writing, that all calculations, plans, specifications and technical documents, for which they

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were responsible, were prepared in conformance with the DQCP.

3.05.07.5 Professional Seals

All calculations, plans, specifications and other technical documents transmitted to the Administration shall be signed and sealed by both of the Professional Engineers licensed in the State of Maryland who are responsible for the design and checking of that document. Landscape plans shall be prepared, signed, and sealed by a Landscape Architect licensed in the State of Maryland. Reforestation plans and application shall be signed and sealed by either a Maryland Licensed Landscape Architect, Licensed Forester, or a qualified professional that is certified by the MD DNR/Forest Service. The certifications at the start and conclusion of the Work, required in Section TC 3.07.03, shall also be sealed by a Professional Engineer licensed in the State of Maryland and signed by the corporate representative of the Design-Build Team and checker(s).

3.05.07.6 Design Quality Assurance

The Administration may periodically audit the Design-Build Team's, the Designer's, and the checker's work to ensure that it is being done in conformance with the Contract requirements. The Administration will endeavor to perform these audits so as not to interfere with the progress in the work. The Design-Build Team shall fully cooperate with and assist the Administration in conducting such audits. The Design-Build Team shall maintain all records and any other elements of the work in a current and readily available manner so that, should the Administration audit the work, everything shall be readily available.

Any quality assurance reviews or audits conducted by the Administration shall in no way remove from the Design-Build Team the responsibility for designing and constructing all elements of the Work in conformance with its Design Quality Control Plan and all requirements of the Contract. The Administration shall at all times have the authority to require the Design-Build Team to re-perform any work that the Administration determines is not in conformance with any of the provisions of the Contract or with any drawings, specifications, other documents prepared by the Design-Build Team. Any re-work shall not serve as the basis for claims for additional compensation or time by the Design-Build Team.

3.05.08 Highway Engineering

As needed to accomplish the project goals and/or Performance Requirements of this project, the Design-Build Team shall prepare roadway, typical section, drainage, geometry, superelevation, profile, maintenance of traffic, erosion sediments control and special detail plans as part of the highway construction plans using the latest CADD Standards and as outlined in TC 3.09 Roadway Performance Specification.

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3.05.09 Pavement Engineering

Pavement design is not anticipated on this project. It is the responsibility of the Design-Build team to maintain all existing roadways and paved facilities.

3.05.10 Structural Engineering

Design and construction of new small structures or bridge structures are not anticipated on this project. It is the responsibility of the Design-Build team to maintain all existing small structures or bridge structures.

3.05.11 Traffic Engineering

Design and construction of new traffic control devices (TCD) is not anticipated on this project. It is the responsibility of the Design-Build team to maintain all existing traffic control devices as outlined in TC 3.12 Traffic Performance Specification.

The Design-Build Team shall maintain all existing traffic control devices operations throughout the project limits.

3.05.12 Roadside Landscape Planting and Reforestation

The Design-Build Team shall prepare landscape and reforestation plans as outlined in TC 3.13 Landscaping Performance Specification. Plans shall include schedules of all materials proposed for use.

3.05.13 Geotechnical Engineering

The Design-Build Team shall conduct supplemental subsurface explorations, analyses, design and construction for all geotechnical components of the Project in accordance with all applicable criteria and standards cited herein and in accordance with TC 3.14 Geotechnical Performance Specification.

3.05.14 Utility Relocations and Permits

The Design-Build Team shall be responsible for coordination of all activities during design and construction with regard to utilities as outlined in TC 3.15 Utility Design and Relocation Performance Specification.

3.05.15 Stormwater Management (SWM) and Erosion and Sediment Control Design and Approvals

The Design-Build Team shall design SWM in accordance with the criteria established in TC 3.17 Drainage, Stormwater Management, and Erosion and Sediment Control Performance Specification and TC 3.20 Environmental Performance Specification.

The Design-Build Team shall ensure that copies of the most current approved plans are available

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to all personnel involved in the construction and inspection of the project. The Design-Build Team shall be responsible for coordinating all reviews and approval submissions with the appropriate review entities.

3.05.15.1 Stormwater Management and Erosion and Sediment Control Review and Approval

The Design-Build Team is responsible for the SWM design for all approvals. The final design shall be acceptable to the Administration and the SWM/ESC approval.

The Design-Build Team shall design ESC in accordance with the criteria established in the Drainage, Stormwater Management, and Erosion and Sediment Control Performance Specification.

The Design-Build Team shall be responsible for producing a completed set of ESC plans for the roadway construction activity. These plans shall be submitted to the SWM/ESC approval authority in conformance with the contract requirements for review and final approval when deemed appropriate.

A Pre-Permitting meeting must be held once the notice of selection has been made. This meeting will be scheduled by the Administration upon request by the Design-Build Team and will include the Design-Build Team's H&H Engineer, Project Design Manager, Construction Manager, E&S Manager, Firm H&H Engineer; a representative of the SWM/ESC authority, and Administration's Highway Hydraulics Division Project Manager and Design Project Manager. The purpose of the meeting is to preview and discuss the Design Build team's approach to completing SWM/ESC design and obtaining approvals, the SWM and erosion and sediment control concepts developed by the Design-Build Team, submission schedules proposed by the Design-Build Team, approval timeframes, submission requirements and the SWM/ECS's approval authority's quality expectations.

The Design-Build Team's Lead Design Firm's Professional Engineer licensed in the State of Maryland must review and certify by signature that the Stormwater Management and Erosion and Sediment Control plans have met the SWM/ ESC requirements prior to any submission to SWM/ESC Approval Authority for review.

Submissions for SWM/ESC approval must be delivered directly to the SWM/ESC approval authority with a copy to the MDOT SHA Project Design Manager. Electronic copies of the submission including application, plans, and reports as applicable must be provided through ProjectWise along with a hard copy of all information delivered directly to the SWM/ESC approval authority. SWM BMPs (Best Management Practices) contained in Chapter 3 of the MDE Maryland Stormwater Design Manual and Submerged Gravel Wetland (SGW) facilities shall be packaged with one SWM BMP or SGW per submission to allow for a unique SWM/ESC approval number for each SWM site. SWM Environmental Site Design (ESD) facilities that meet the criteria of Chapter 5 of the MDE Maryland Stormwater Design Manual, excluding the SGW practice, may be packaged in groups recommended not to exceed ten facilities for submission. Packages of groups of SWM ESD facilities submitted to the SWM/ESC approval authority shall remain consistent through the SWM/ESC approval process, except that SWM ESD facilities may be removed from the group. The Design-Builder may make submissions for combined Site Development Approval and Final Approval to the SWM/ESC approval authority. A signed

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and sealed title sheet shall be submitted to the SWM/ESC approval authority prior to final approval. Comments or approval by the SWM/ESC approval will be provided within 28 calendar days beginning the day after receipt of the hard copy submittal. However, if a significant number of submissions are sent concurrently or overlap, the SWM/ESC approval authority may take 45-calendar days to return comments or approval and shall be at the SWM/ESC approval authority sole discretion. The Design-Builder will be notified if a 45-calendar day period is being instituted for any submission. Review time for submissions to the SWM/ESC approval authority shall not be the basis of a claim or time extensions against the Administration.

All SWM facilities shall meet all requirements of the <u>MDE Maryland Stormwater Design</u> <u>Manual</u> (per TC 3.08) and must be approved by the Administration's Highway Hydraulic Division. Once approval is gained from the Administration, the Design-Build Team shall acquire all other approvals and necessary permits.

The Design-Builder shall be responsible for submitting a NOI form for this project and any amendments thereto. Any delays resultant of obtaining the NOI or any NOI modifications will be the sole responsibility of the Design-Build Team.

3.05.15.2 MDE Dam Safety Division Small Pond Review and Dam Safety Approval

All ponds, culvert crossings (in relation to the roadway embankment), and sediment traps designed must be checked for MDE Dam Safety Division Review Criteria. Summary sheets for each pond and sediment trap for Dam Safety requirements will be submitted to the SWM/ESC approval authority. Refer to section B.1.2 in the MDE Maryland Stormwater Design Manual (per TC 3.08). If one or more ponds fall under MDE Dam Safety Division Small Pond Review Criteria, the pond design must be submitted to MDE Dam Safety Division. Approval from Dam Safety Division shall be required before any E&S or SWM package will be approved by the SWM/ESC approval authority. Submissions shall be made directly to MDE Dam Safety Division.

The MDOT SHA-HHD and the SWM/ESC approval authority shall be concurrently copied on all correspondence; including comment letters, phone conversation transcripts, transmittals, reports, plans revisions to plans and report, computations, and/or point-bypoint response letters; delivered to MDE Dam Safety Division.

Review time for submissions to MDE Dam Safety Division shall not be the basis of a claim or time extensions against the Administration.

3.05.15.3 MDE Plan Review Division Small Pond Review

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All ponds, BMPs contained in Chapter 3 of the MDE Maryland Stormwater Design Manual, SGWs, culvert crossings (in relation to the roadway embankment), and sediment basins/ traps designed must be checked for Pond Code 378 applicability. Summary sheets for each Code 378 facility will be submitted to the MDE Plan Review Division. Refer to section B.1 in the MDE Maryland Stormwater Design Manual (per TC 3.08). If one or more ponds fall under Code 378 criteria, the pond design must be submitted to the MDE Plan Review Division. Stormwater BMPs proposed to be classified and designed according to the excavated pond criteria and exemptions contained in the Code 378 criteria must be submitted to the MDE Plan Review Division for concurrence. Approval from

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MDE Plan Review Division shall be required prior to SWM/ESC final approval.

The Administration and the SWM/ESC approval authority shall be concurrently copied on all correspondence; including comment letters, phone conversation transcripts, transmittals, reports, plans, revisions to plans and report, computations, and/or point-by-point responses; delivered to MDE Plan Review Division. MDOT SHA will provide an expedited reviewer to help facilitate the small pond review, but Final approval will still be required from MDE staff.

Review time for submissions to MDE Plan Review Division shall not be the basis of a claim or time extension against the Administration.

3.05.15.4 Stormwater Management (SWM) Site Development Criteria Review and Approval

All stormwater management facilities shall be designed in accordance with the MDOT SHA Stormwater Site Development Criteria Review Guidelines, prepared by the Administration's Highway Hydraulics Division.

The SWM facilities shall be designed with the input of a licensed landscape architect and shall adhere to the accepted standards for the profession concerning aesthetics and site planning. This includes not only planting but also grading, landforms, site layout, safety criteria and choice of materials.

The SWM facilities shall integrate well visually with the surrounding environment, developments, communities, roadways, and corridor landscaping. This means that facility types, outfall structure designs, detailing, colors, planting palette, landforms, surface area shapes, and fencing (if required) should be consistent or complementary.

3.05.15.5 Stormwater Management (SWM) As-Built Certifications

The Design-Build Team shall provide an SWM As-Built (AB) Inspector to inspect the various stages of construction for each SWM facility and provide documentation to the Administration that certifies that the SWM facilities have been constructed as specified in the Contract Documents including certification that the constructed SWM facilities provide the functionality as designed. The AB Inspector shall be a licensed Professional Engineer or Land Surveyor in the State of Maryland with experience in SWM design and construction.

The As-Built Certification Package shall be prepared according to the special provision, 300 – Stormwater Management Facility As-Built Certification, included in this package. Copies of As-built Certification shall be maintained at the Administration's field office at all times for verification and compliance until it is complete and submitted for approval. The As-Built Certification signature block, checklists and tabulations are also included on ProjectWise.

The Design-Builder shall submit the completed As-Built Certification Package to MDOT SHA's Construction Project Engineer and once concurred by the Construction Project Engineer, it shall be submitted via the MDOT SHA toolkit system or mailed to:

Highway Hydraulics Division Chief, Mail Stop C-128

Maryland State Highway Administration 707 North Calvert Street Baltimore, Maryland 21202 Highway Hydraulics Division may provide comments or request additional information to suffice as necessary for submission to the SWM/ESC approval authority for final acceptance. MDOT SHA's construction engineer, Highway Hydraulics Division or SWM/ESC Approval Authority may require corrective action to the constructed facility prior to final acceptance in order to ensure the constructed facility functions as intended. Any and all corrections shall be completed and all updated information; including the updated as-built certification; shall be provided in a timely fashion for review and approval.

3.05.16 Surface Storm Drainage Design

The Design-Build Team shall design all surface drainage conveyances (including but not limited to open channels, stream relocations, inlets, closed storm drainage systems, cross culverts, and pipes under entrances and driveways) in accordance with the Drainage, Stormwater Management, and Erosion and Sediment Control Performance Specification.

If Waterway Construction (COMAR 26.17.04) review and approval is required, submittals for MDE approval shall be delivered directly to MDE. A copy of the complete MDE submittal package, including MDE comment letter and point-by-point response to comments, shall be concurrently delivered to the Administration's Highway Hydraulics Division. Review time for submissions to the Administration or MDE shall not be the basis of a claim or time extensions against the Administration.

3.05.17 Erosion and Sediment Control (ESC) Design and Approvals

See TC Section 3.05.15

3.05.18 Engineering Studies

The Design-Build Team shall be responsible for engineering studies as required to determine solutions to any unforeseen situations that may be discovered during this project, and submission of these studies to the Administration for approval. These studies shall be prepared as per the "Volume II -Specifications for Consulting Engineers' Services".

3.05.19 Design Review and Coordination

3.05.19.1 Design Submission Requirements

3.05.19.1.1 Review Timeframes

The Design-Build Team <u>must notify the Administration of the date they wish to</u> <u>make a submittal on and must do so at least 14 days prior to the date</u> of all intended submissions.

If the Design-Build Team elects to break the project into smaller separate design packages or to employ a "rolling" process, the Administration will review the plan

submittals and return comments **within 21 calendar days** of receipt of the plans, beginning on the day after receipt of the plans, unless specified otherwise in the RFP. If the Design-Build Team submits the package earlier than or later than the date specified, the Administration shall have the right to extend the review and comment period beyond 21 calendar days but not more than 35 calendar days after receipt of the plans, unless specified otherwise in the RFP.

If the Design-Build Team elects to submit plans using the normal milestone process, the Administration will review the plan submittals and return comments **within 45 calendar days** of receipt of the plans, beginning on the day after receipt of the plans.

Multiple submissions sent concurrently or overlapping submissions may also result in a **45 calendar day** review and comment period depending on the material being submitted and shall be at the Administration's sole discretion.

Review time for submissions to the Administration shall not be the basis of a claim or time extensions against the Administration.

The Administration will require the use of Project Wise as means to post plans, reports etc. for review. Comments will also be posted on Project Wise. Third party reviews such as Utilities, Local Jurisdictions and Environmental Agencies will still require hard copies. The Design-Build Team shall provide 10 sets of plans for third party reviews. The Design-Build team shall deliver plans directly to third parties.

The intent of this section is to provide some flexibility for the Design-Build Team in the schedule for design and construction such that the construction work may begin on one portion of the project before all of the design has been reviewed and approved for the entire project. For example, the Design-Build Team may elect to break the project into smaller separate design packages or to employ a "rolling" process of design and construction. Earthwork, for example, could begin after receipt of the SWM/ESC Approval Authority approval for a particular section and after all other requirements are met, but prior to final approval of the completed design for that section. However, all roadway geometry, superelevation data, cross culverts and associated drainage design must be submitted and approval received prior to construction of earthwork.

Any adjustments made necessary by changes during the completion of the design and approval process shall be made at the Design-Build Team's expense. Use of this process will not alter the need to formally submit each element of the design for approval using the review process described below.

The Design-Build Team may follow the Administration's normal milestone review process in completing the design. Plans and specifications would be submitted for review and approval of the Administration's Director, Office of Highway Development, at the milestones listed below. The intent would be for the Administration to review the plans as design progresses, so that major changes can be avoided late in the process.

The Administration may conduct formal review meetings at these milestones and provide comments for the Design-Build Team to address. In either case, the Design-Build Team shall be required to address all issues identified, to the satisfaction of the Administration, before the Director will grant the milestone approval.

The Design-Build Team may, at their own risk, prepare the plans for any segment to the Final Plans and Specifications stage (100 percent). Any changes required to plans or field adjustments as a result of Administration comments shall not be the basis of a claim or time extensions against the Administration.

The traffic control plans for a particular phase of work is required by the requirements of this Request for Proposals they must be approved by the Administration's District Traffic Engineer before construction can begin for that phase of work.

For the protection of both the Design-Build Team and the Administration, all submittals prepared by the Design-Build Team shall be dated and initialed by the Design-Build Team as a file copy submission.

Plan reviews that result in "conditional approval" means the comments are minor in nature and should not have an adverse effect on construction activities. If "conditional approval" is granted, the Design-Build Team shall post a copy of their point-by-point responses on ProjectWise outlining how the Design-Build Team will address the comments. If the comments are identified to be addressed as part of an "As-Built Drawing", the Design-Build Team shall follow the process outlined in Section 3.05.26.2.2. If the Design-Build Team elects to address all comments prior to proceeding towards construction, then the Design-Build Team shall follow the process for plan "approved" as noted below. In order to proceed towards construction the Design-Build Team shall submit the title sheet that is signed and sealed by the Design-Build Team's Engineer to the Administration's Design Project Manager. The title sheet shall be returned to the Design-Build Team with signatures from the appropriate officials of the Administration. The Design-Build Team shall then submit 20 sets of plans, specifications and post a copy of their point-by-point responses on ProjectWise for MDOT SHA internal distribution. One set of Reproducibles shall also be submitted. The Design-Build Team is responsible for any external distributions associated with the Design-Build Teams personnel, subcontractors, sub consultants, suppliers etc.

Once the plans are "approved", the Design-Build Team shall submit the title sheet that is signed and sealed by the Design-Build Team's Engineer to the MDOT SHA Design Project Manager. The title sheet shall be returned to the Design-Build Team with signatures from the appropriate officials of the Administration. The Design-Build Team shall then submit 20 sets of plans and specifications to the Administration for the MDOT SHA internal distribution. One set of Reproducibles shall also be submitted. The Design-Build Team is responsible for any external distributions associated with the Design-Build Teams personnel, subcontractors,

sub consultants, suppliers etc.

The Design-Build Team shall not proceed with the final construction of a particular portion of the project until:

- All Final Plans and Specifications comments have been addressed to the satisfaction of the Administration for that portion.
- All required permits for that portion of work have been received.
- Final Plans and Specifications approval is received in writing from the Administration for that portion.
- A title sheet is signed and sealed by the Design-Build Team's Engineer and appropriate officials of the Administration.

Final contract plans submission shall meet file storage requirements and will be considered the record plan set for seals and signature. Electronic files shall be for documentation purposes only. All revisions to approved plans and as-built revisions shall be made on both the hard copy originals and in the electronic files.

3.05.19.2 Normal Milestone Review Process

If the normal milestone review process is chosen, the following submissions shall be made:

3.05.19.2.1 Semi-Final Review

The Design-Build Team shall post plans and specifications to Project Wise and provide an email to the Administrations Project Manager that defines the link to where the plans and specifications reside. The Design-Build Team shall also produce 10 sets of plans and specifications if third party reviews are included. One set of reproducible plans shall also be submitted when the design is approximately 60 percent complete (including drainage layout, utility locations, TCP concept plans, SWM, etc.).

3.05.19.2.2 Final Plans and Specifications

The Design-Build Team will be required to submit Final Plans and Specifications when the portions of the design are 100 percent complete. The Design-Build Team shall post plans and specifications to Project Wise and provide an email to the Administrations Project Manager that defines the link to where the plans and specifications reside. The Design-Build Team shall also produce 10 sets of plans and specifications if third party reviews are included. One set of reproducible plans shall also be submitted.

This review will verify that all comments from semi-final review have been addressed and may include additional comments on the plans, and/or specifications due to the Design-Build Team's subsequent design submittals.

3.05.20 Additional Services

The Design-Build Team shall be responsible for all necessary field surveys required for the project, which shall conform to Maryland Grid System NAD 83/91 and NAVD 88.

3.05.21 Environmental Permits

The Design-Build Team shall procure all permits, approvals, and licenses, pay all charges, fees and taxes and give notices necessary or appropriate for the prosecution of the Work. This includes approvals for on-or off-site staging, stockpiling areas, disposal sites and borrow pits.

The Design-Build Team shall be responsible for addressing any comments or issues the regulatory agencies and/or the Administration may have, including those pertaining to avoidance and minimization measures. The Design-Build Team shall also be responsible for designing, implementing, and monitoring any mitigation which may be required due to wetlands, buffers, or floodplain impacts proposed by the Design-Builder. It is not the responsibility of, nor guaranteed by, the Administration that approval or authorization will be granted by the regulatory agencies.

If the Design-Build Team determines that trees must be removed, the Design-Build Team shall obtain approval from and comply with the terms of the MDNR at no additional cost to the Administration.

The Design-Builder shall obtain, including but not limited to, the following permits and/or approvals:

- 1) Section 404 Individual Permit, Water Quality Certification and Nontidal Wetlands & Waterways Permit and (from USACE and MDE) Reforestation Site Review Permit (from Maryland Department of Natural Resources, DNR)
- 2) NPDES Permit (from MDE)
- 3) Reforestation Law Approval (from DNR)
- 4) Erosion and Sediment Control Approval (from SWM/ESC Approval Authority)
- 5) Stormwater Management Permit (from SWM/ESC Approval Authority)
- 6) Notice of Intent (NOI) (From MDE)
- 7) All other approvals, permits and licenses, pay all charges, fees and taxes and give notices necessary or appropriate for the implementation of the Project beyond those obtained by the Administration. This includes but is not limited to approvals for on or off-site staging, stockpiling areas, disposal sites and

borrows pits;

3.05.22 Phase V Services

Phase V services consist of partnering during design and construction, checking shop drawings, redesign under construction, revisions, as-built plans, and provisions for expert court testimony.

The Design-Build Team shall provide all services and perform tasks described in compliance with the requirement policies of Administration as stipulated throughout this resume and "Volume II - <u>Specifications for Consulting Engineers' Services</u>,".

3.05.23 Construction Personnel Identified in Proposal

The Design-Build Team, all key staff and construction-related key personnel, and all other Major Participants identified in the proposal shall be utilized in the same manner and to the same extent set forth in the Technical Proposal and for the duration of the project. **Changes regarding the Design-Build Team shall not be allowed. Changes regarding key staff, construction-related key personnel and all other Major Participants require prior written approval by the Administration.** Requests for such changes must be submitted to the Administration in writing and replacement personnel must have equal or better qualifications than the key personnel identified in the Technical Proposal. The format for replacement staff must be the same format as required for the Technical Proposal including the requirements thereof. The Design-Build Team alone and shall not increase the Design-Build Team's Price or change the project schedule. The Administration will approve such requests only if it determines that such change will not detrimentally affect the long term quality, durability, maintainability, timeliness of the Work.

3.05.24 Conformance with Contract and Proposal

All construction, construction-related work, and all other work must conform to the Contract, to the Technical Proposal submitted by the Design-Build Team and to the construction plans prepared by the Design-Build Team.

3.05.25 Check Shop Drawings

The Design-Build Team shall check all shop drawings for hydraulic structures, non-standard drainage structures and all other designed structures prior to manufacture and/or placement of such structures. The Design-Build Team shall check all such shop drawings and stamp their approval prior to sending approved shop drawings to the Administration. The shop drawings for larger hydraulic structures and designed structures should be submitted to MDOT SHA according to TC-4.01, Working Drawings. The approved shop drawings for hydraulic structures, non-standard drainage structures (including stormwater management) along with the necessary structural computations shall be submitted to the MDOT SHA Design Project Manager.

All shop drawings relating to the structures shall be reviewed in accordance with *MDOT SHA OOS PPM No. OP-82-34 (G), Checking of Working Drawings, Form Plans and/or Erection Plans.* The

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primary review shall be undertaken by the Design-Build Team. Once the primary review is complete, the Design-Builder shall submit the package to the MDOT SHA Design Project Manager for a secondary review. Once reviewed and approved by MDOT SHA, the structural shop drawings shall be stamped as approved and returned to the Design-Build teams with the stamped plans being designated as the documented approval. No construction activities are permitted in conjunction with any structural shop drawings that have not been approved by MDOT SHA.

The Design-Build Team shall correct any errors or omissions found by the Administration at no additional cost to the Administration.

The Design-Build Team shall challenge all the work of the detailer, approving that, which is correct, or most appropriate and redlining and commenting on incorrect or less appropriate details or design. The importance of this approach is emphasized since inferior detailed design could negate the benefits of quality general design. Each shop drawing shall bear the official stamp of the Design-Build Engineer, attesting to their review and approval by the Design-Build Engineer. This work is to be done under the supervision of and shall be the responsibility of a Maryland Registered Professional Engineer.

3.05.26 Conformance with Approved Plans and Specifications

3.05.26.1 Construction Plans and Project Specifications

All work shall be done in conformance with the details and dimensions shown on the approved Final Plans and Specifications, and shall meet the requirements in the specifications/special provisions approved as a part of the Final Plans and Specifications submission and portions thereof.

3.05.26.2 Plan Revisions after Approval of Final Plans and Specifications

All plan revisions made after Final Plans and Specifications approval shall have approval of the Administration prior to implementation.

3.05.26.2.1 Revisions

Redesigns after Final Plans and Specifications approval shall be superimposed on the original project plans in red. Old design details, dimensions and notes shall not be erased, but X'd out in red. The date that the revision was made shall be indicated in the title block of each revised plan sheet. Submission to the Administration shall follow the process outlined in TC Section 3.05.19.

The Design-Builder shall also submit to the SWM/ESC Approval Authority for review for any changes to SWM and/or ESC. Submission to the SWM/ESC Approval Authority shall follow the process outlined in TC Section 3.05.15.1.

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Review times by SWM/ESC Approval Authority and/ or the Administration for revisions shall not be the basis of a claim of time extension against the administration.

Any changes that involve regulated environmental resources shall be coordinated by the Design-Builder with the applicable environmental approval agency. The Design-Builder shall provide the Administration copies of any concurrence and/or approval obtained from the agencies for the revision.

3.05.26.2.2 As-Built Drawings

Field changes/variances from the details and dimensions shown on the plans shall be superimposed on the approved set of drawings in green. Old details, dimensions and notes shall not be erased, but X'd out in green. Each revision must be identified with a Hexagon with the letter A in the center. This symbol is available in MD SHA's Cad Standards. The date that the revision was made shall be indicated in the title block of each revised plan sheet. The As-Built Plans shall reflect any field revision made during construction.

The Design-Build Team shall submit one comprehensive set of As-Built plans at the completion of the project that are signed and sealed by the Engineer. The comprehensive set of As-builts will include an index sheet and a key plan which graphically represents and annotates each phase of the plan submittal if there are multiple submittals. The comprehensive set of as-builts will be assembled and numbered consecutively, beginning with sheet one of the first submittal and ending with the last sheet of the final submittal. The index and key plan will allow for more easily understood and navigable drawings within the overall project limits in the future.

The Stormwater Management Facility As-Built Certification will be a separate submittal as described in 3.05.15.5.

3.05.26.2.3 Computer Files

The Design-Build Team shall also submit Black and White images, at 200 DPI-TIF and PDF files, of the As-Built Plans electronically via ProjectWise. The As-Built plans shall be scanned starting with the Title Sheet. The file names will be the Construction Contract Number, followed by a dot (.), followed by a sequential number beginning with 1001. The sequential number must correspond with the plan sheet numbering. This number is followed by another (.) and then the TIF and PDF extension. Example: AX7665D82.1001.tif. All scanned TIF and PDF images will be scanned in such a way that they do not appear upside down upon opening.

3.05.26.2.4 Permits

The Design-Build Team shall obtain approvals from the appropriate regulatory agencies for any changes in design and/or construction activities that affect any permit conditions.

3.05.27 Coordination with Other Contractors

The Design-Build Team shall coordinate all design and construction, including that of any subcontractors, with other designers, contractors, the utility companies, and governmental agencies; Administration personnel, and operating personnel concerning site access, establishment and use of temporary facilities, work schedules, and other elements of the specified work, which require interfacing with others.

3.05.28 Community Relations

The Design-Build Team will establish a program of public contact for conducting effective relationship with the community and businesses that are in proximity to construction areas. This program shall meet the requirements outlined in TC 3.21, submitted to the Administration within 45 days of Notice to Proceed and included as part of the Lump Sum Price for this Contract. As part of this program, the Design-Build Team shall establish and maintain continuing liaison with persons occupying property or doing business in the immediate area of the work site for the purpose of minimizing inconveniences resulting from construction. The plan will detail how the Design-Build Team intends to keep the property owners and businesses informed of the work schedule and include a program for notifying them at a minimum of every 30 days of what will occur within the next 30 days. The Design-Build Team's Technical Proposal shall also name a Public Relations Officer who is responsible for this work and who the Administration and citizens can contact for project information and answers to project related questions. See TC Section 3.21, Public Outreach Performance Specification, for all the requirements.

3.05.28.1 Toll Free Telephone Number

The Design-Build Team shall establish a toll free telephone number. This telephone number shall be used for the public to contact the Design-Build Team in the case of an emergency. The Design-Build Team shall maintain a log of all calls made to the number, including date, time, name of caller, reason for call, caller's address and phone number. These logs shall be accessible to MDOT SHA for review and submitted every two months once the phone line is made available to the public. The Design-Build Team shall respond in person or by telephone within one hour of the time of the call and shall arrange for resolution of any issues as soon as possible. The Design-Build Team shall post the toll free telephone number prominently within the project limits and the Administration project field office. The telephone number shall be shown on all flyers distributed on the project.

3.05.28.2 Public Relations Materials

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All public relations materials, advertisement, flyers, and meeting handouts and graphics shall be approved by the Administration's Project Manager and Office of Customer Relations and Information prior to public release.

TC 3.06 Administration Services

The Administration will provide the following services:

3.06.01 General Administration Services

- A. Provide CADD standards, engineering standards, design criteria, as-built plans, existing R/W plats and prints of other design projects for use as examples or guides.
- B. Provide erosion and sediment control standard sheets, traffic design standard details, Maintenance of Traffic (MOT) standard plates, etc.
- C. Provide overall management and liaison services related to project phases.
- D. Coordinate times and places of all of the Design-Build Team's community and public meetings.

3.06.05 Construction Inspection

The Administration will follow its normal construction inspection policies and procedures. However, measurement of quantities will serve to verify that the plan and specification requirements are met and for other purposes at the discretion of the Administration. The Design-Build contract does not alter the authorities of the Administration's District Engineer, Project Engineer, or construction inspection personnel in their Administration of the construction contract.

3.06.06 Conduct Pre-Construction Conference

The Administration will conduct the conference and take minutes. Representation at the conference shall include:

3.06.06.1 Preconstruction Conference Attendees

- A responsible officer of the Design-Build Team;
- The Project Manager;
- The MDOT SHA Construction Project Engineer;
- The MDOT SHA Design Project Manager;
- The FHWA Representative;

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- Public Affairs Representative;
- Maryland DNR and MDOT SHA Landscape Operations representative;
- MDOT SHA Landscape Architecture representative;
- A responsible officer of any major subcontractors;
- The Environmental Monitor and MDOT SHA Environmental Programs Division representative;
- MDOT SHA Highway Hydraulics Division representative;
- MDOT SHA Office of Structures representative; and
- District Utility Engineer

3.06.06.2 Pre-Construction Conference Topics

The Design-Build Team should be prepared to discuss the following issues at the conference (at a minimum):

- Designation of responsible personnel;
- Correspondence/communication;
- Distribution of contract documents;
- Approval of subcontractors;
- Tree Impact Minimization and Avoidance Report;
- Locations and protections devices of forested areas.
- Stake out and approval of tree protection devices and fence locations.
- Progress schedule (design and construction);
- Critical work sequencing;
- Permits and licenses;
- Submission schedule;
- Submittal of Shop Drawings, project data and samples;

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- Itemized schedule listing dates by which other submissions will be forwarded to the Administration;
- Major equipment, deliveries and priorities;
- Site utilization plans;
- Office and storage area;
- Construction constraints;
- Coordination of all interface activities;
- Training;
- Availability of utilities/need for temporary services;
- Procedures for maintaining Record Documents;
- Material submittals and approvals;
- Processing of field decisions and change orders;
- Close-out procedures;
- Review of miscellaneous procedures;
- Safety; and
- Utility coordination and protection

3.06.07 Conduct Progress Meetings

The Administration will conduct progress meetings on a regular basis, as scheduled at the project initiation meeting and pre-construction conference. The Design-Build Team shall prepare all meeting minutes and distribute them to attendees and team members for review and comment weekly. Additional progress meetings may be necessary at the discretion of the Administration to maintain coordination of design and construction activities. Representatives at the meetings shall be qualified and authorized to act on behalf of the entity each represents.

3.06.06.1 Progress Meeting Attendees

- The Design-Build Manager, Design-Build Project Manager and associates as needed,
- The Administration's Project Design Manager, Construction Project Engineer, and

associates as needed,

- Subcontractors as appropriate to the agenda,
- Utility companies, and other concerned parties as appropriate.

3.06.06.2 Progress Meeting Topics

The meetings will serve as a forum to establish and maintain close coordination of work activities, resolve problem issues and expedite construction operations. Schedules, change orders, work activities, DQCP reviews, and other issues will also be addressed.

3.06.08 **Permits**

It shall be the design-Builder's responsibility to obtain all required Environmental Permits and approvals for the project.

TC 3.07 Deliverables

Deliverables will be produced in both the design and construction phases. They include construction documents, reports, public relations materials, design exceptions and property owner information.

3.07.01 Plans

At a minimum, the following separate plan sheets shall be produced for this project.

- Title Sheet
- Index of Sheets
- Abbreviations Sheet
- Typical Section Sheets (if applicable)
- Superelevation Sheets (if applicable)
- Pavement Detail Sheets (if applicable)
- Miscellaneous Detail Sheets
- Geometry Sheets (if applicable)
- Intersection Detail Sheets (if applicable)
- Roadway Plan Sheets (if applicable)

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- Roadway Vertical Profile Sheets (if applicable)
- Maintenance of Traffic Plan Sheets (if applicable)
- Storm Drain Profiles with 25-year hydraulic gradeline shown and Structure Schedules Sheets
- Drainage Details Sheets, including ditch type/linings, outfall protection, and nonstandard structures
- Stormwater Management Plans and Details
- Erosion and Sediment Control Plans and Details
- Stream Diversion Plans and Detail Sheets
- Landscape/Reforestation/SWM Planting Plan Sheets
- Structure Plans and Details (if applicable)
- Culvert Extension Plans, Elevation and Details (if applicable)
- Retaining Wall Plans, Elevation and Details (if applicable)
- Traffic Signalization Plans (if applicable)
- Interconnect Plans (if applicable)
- Signing and Pavement Marking Plans (if applicable)
- Roadway Lighting Plan Sheets (if applicable)
- Grading Tables

3.07.01.1 General Requirements

The Design-Build Team shall deliver upon request and at no additional cost hard copies of maps, plans and drawings as well as electronic copies of all computer files. This includes Microstation files used to develop the design and drafting of this project. These files must be logically indexed and labeled to enable Administration personnel to use at any time.

3.07.01.2 Contract Plans and Specifications

The Design-Build Team shall provide contract plans and any required specifications, in accordance with "Volume II Specifications for Consulting Engineers" and this RFP. The Design-Build Team will develop specifications for construction that identify the details of

the proposed work. The intent is that the work will be done in accordance with the Standard Specifications, project specific Special Provisions, the "standard" Special Provisions, and the Special Provisions Inserts which are normally included in an Administration advertised RFP. All of these "standard" Special Provisions Inserts and Special Provisions are included in this RFP even though the work items to which they apply might not be included in this project. The intent is that if the item is included in the construction, then these "standard" Special Provisions Inserts will apply.

The specifications to be prepared by the Design-Build Team and submitted to the Administration for review and approval will, in addition to all of the specifications mentioned above, include any specifications developed by the Design-Build Team that supplement or modify what is provided in the RFP.

Throughout the design phase, the Design-Build Team shall prepare and update 50 scale reproducible maps of the design to be used for meetings, briefings, etc. Where needed for added clarification, 20 scale reproducible maps shall be provided to the Administration. The scale of the roadway plans should be a scale appropriate for the project, but not less than 1"=50'. A scale of 1"=30' or 1"=20' should be used if more detail is needed on the plans. The scale of the plans shall be discussed with the Administration and final determination of plans scale shall be at the sole discretion of the Administration.

The Design-Build Team shall provide the Administration with sufficient data to answer property owners' and other requests for information concerning the project's effects, status, etc.

3.07.01.3 Drafting and CADD Standards

The Design-Build Team shall utilize MDOT SHA supplied Microstation files, including data collector survey and photogrammetry in their design and drafting. The Design-Build Team shall utilize the Microstation drafting software packages Version V8i or later, and/or Inroads/Geopak. All of the design and drafting will utilize all Administration CADD Standards including but not limited to feature tables, file-naming standards, parameter files, font libraries, cell libraries and color tables.

3.07.01.4 Stormwater Management (SWM) and Drainage and Conveyance Design Plans

The following items shall be included in the design plan documents:

- Pipe profiles and structure schedules for all storm drain systems and culverts.
- Profiles shall be at a scale of 1 in. = 30 ft. horizontal and 1 in. = 3 ft. vertical. The 25-year hydraulic gradient and existing and proposed ground, proposed pipe, existing and proposed utilities, proposed outlet protection, and existing structures shall be shown on all storm drain profiles.

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- Details for all non-standard drainage structures.
- SWM Systems including details, profiles, grading and layout plans, planting plans and BMP ID numbers.
- Side, median and outfall ditch elevations, offsets, section geometry, and surface treatments.
- A BMP As-Built Certification sheet shall be developed for each SWM facility. Examples of the checklists and tabulations are included in this package and checklists for other types of facilities may be available from the Administration, Highway Hydraulics Division, upon request. The Design-Build Team may expand the checklist as necessary.
- Hazardous material spill containment plans as necessary.
- Underdrain connections, locations (including linear filter cleanouts), and outlets.
- Cross culvert locations, headwater pool areas, and channel changes required to adjust streams to culverts.
- Spring box and outlet locations and configurations.

3.07.01.5 Erosion and Sediment Control (ESC) Plans

The Design-Build Team shall develop ESC Plans that include the following in addition to the highway plan requirements.

- Plans for both initial and final phases of the construction are required. Plans for interim phases may also be required by SWM/ESC Approval Authority to ensure adequate controls throughout project duration. These interim phase plans shall be coordinated with traffic control stages. The plans require one foot contouring for all phases at the same scale as the roadway plans.
- The initial phase plan shall detail the implementation of erosion and sediment control measures necessary to complete the clearing and grubbing and the initial stages of the Traffic Control Plan (TCP).
- The final phase shall detail the control measures required to move to final grade and accommodate interim traffic control phases.
- Plans shall provide a detailed description of the Limit of Disturbance (LOD). A schedule of stations and offsets shall be provided with stations and offsets established at a minimum of 50 foot intervals and at all break points in between.
- Larger scale drawings (1 in. = 200 ft.) shall be included in the plans depicting off-

site drainage areas, sensitive environmental resource areas such as wetlands, woodlands, streams, and locations of major diversions and sediment controls.

- Maintenance of stream flow and maintenance of storm drain flow plans as required.
- This plan will be coordinated with the MDE Non-Tidal Wetland and Waterways Division to ensure compliance with ESC measures in areas subject to waterway construction permits. The Design-Build Team shall be responsible for all revisions due to MDE review and comment.
- The plans shall be sealed and signed by a Maryland Registered Professional Engineer.

3.07.01.6 Traffic Control Plans

The Design-Build Team shall prepare detailed Traffic Control Plans (TCPs) as required for various stages of construction showing traffic patterns, signs, barricades, etc. These plans will be developed at a scale of 1 in. = 20 ft. or 1 in. = 50 ft. and shall layout in detail each phase of construction as coordinated with the erosion and sediment control and landscape plans. Final TCPs may include cross-sections, temporary signals and/or signal phasing modification plans and interim drainage. All existing highway lighting systems, sign lighting and traffic signals are to be kept fully operational throughout the construction period. In the event some or all of the existing lighting must be taken out of service, consideration should be given to temporary lighting systems and maximizing usage of new lighting systems. All lane closures shall be as outlined elsewhere in this RFP.

3.07.01.7 Structure Plans

Design and construction of new small structures or bridge structures are not anticipated on this project.

3.07.01.9 Utility Map

The Design-Build Team shall develop utility maps that graphically showing all existing utilities within the Right-of-Way of each site. This map shall be at a scale appropriate for the project, but not less than 1"=50'. Existing utilities are to be clearly indicated and labeled. Connections between valve boxes, manholes, poles, etc., are to be shown and labeled with the type of existing service (i.e. 2" electric, fiber optic, etc.). This map is to be kept current with all proposed utility relocations shown and made available for review and use by Administration and Utility Company staff. Existing utilities are to be shown and clearly labeled on any plans.

3.07.01.10 Roadside Landscape and Reforestation Plans

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The Design-Build Team shall prepare landscape and, if required, reforestation plans with a scale appropriate for the project, but not less than 1"=50'. Plans shall include schedules of all materials proposed for use, and shall be submitted to the Administration, Landscape Architecture Division and Landscape Operations Division, for review and approval. Roadside Landscape and Reforestation plans should include the following information:

- Vicinity map of site location for both on-site and off-site reforestation areas
- Density and quantity of plantings area provided for mitigation
- Limit of Disturbance
- Tree preservation fence line
- Plans should include environmental/surface features, extending at least 100' beyond Property Line or Right-of-Way of adjacent parcels. Ownership and parcel numbers should be identified for each adjacent parcel
- A schedule of materials, indication plant quantities for each type and size of plant material, proper nomenclature for plant species, root of materials; B&B or Container Grown (CG), and proposed spacing
- Defined limits of mowing and limits of mulching where applicable
- Critical Root Zones for individual significant or specimen trees, as defined by the Maryland Department of Natural Resources: Measured from the center of the tree's trunk; 1.5 foot of radius per inch of DBH (Diameter at Breast Height)
- Tree preservation details including but not limited to fencing, fertilizing, root aeration, signage, and root pruning/sequencing of construction indicating any additional requirements for tree preservation not identified in the specifications.

3.07.02 Cross Sections

No roadway cross sections are required for this project

3.07.03 Reports

The Design-Build Team shall perform engineering computations and/or analysis and maintain all backup data. This data must be available to the Administration at all times; and clear, legible copies shall be furnished to the Administration upon request. Stormwater Management reports, drainage reports, geotechnical report and field inspections reports, computations, and maps shall be submitted to the Administration for review and/or approval and placement in permanent files. These computations shall be for the total project and in accordance with Administration procedures. Design Exceptions shall be documented in report form and submitted to the Administration.

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3.07.03.1 Stormwater Management (SWM) Report

Upon completion of the project, the Design-Build Team shall submit two (2) copies of the approved, final SWM Report to the Administration's HHD. During the review and approval process, the report can be submitted in phases. Electronic and Hard Copies of all items within the report are required.

3.07.03.1.1 SWM Report Format

- The report and accompanying mapping shall be compiled according to the MDOT SHA HHD SWM Design Report Standard Format (included in this package).
- The report shall be written in a clear, well organized, and concise manner with all pages numbered and dated.
- The report shall be placed in 8¹/₂ by 11 inch, 3-hole binders that allow for insertion of revisions and removal of old data.
- Revisions to report as required. The date of the revision shall be placed on all pages and pages to be added, replaced or removed shall be designated. Revisions shall be 3-hole punched for easy placement in the reports. A document shall be submitted with each report detailing all of the changes.
- The final approved report, including all mapping and exhibits, shall be converted to PDF formatted file(s). The electronic file(s) shall be delivered to the Administration for their records.

3.07.03.1.2 SWM Report Contents

The SWM report shall contain the following:

- A signed SWM/ESC Checklist for each phase of approval (ie site development approval, final approval) with all the available items
- A SWM/ESC transmittal form.
- A SWM/ESC submittal letter.
- A thorough discussion explaining the extent of improvements at each outfall and the proposed quantitative and qualitative control methods of SWM, including reasons why other methods were not selected.
- An explanation of hydrologic/hydraulic analysis methodologies used. Final supporting computations, maps, schematics, cross-sections, details and computer outputs shall be included for each outfall location.
- Outfall stability analysis, including photographs of each outfall and receiving channel.
- Computations for riprap sizing and outlet protection.

- Maps and schematics clearly showing the location of subareas, structures, existing land use, time of concentration paths, soil types and SWM facilities. Maps shall be included in pockets within the report.
- Computer printout sheets in 8¹/₂ inch x 11 inch format. These sheets shall be clearly labeled for cross-reference to the supporting data and points of analysis.
- MDE Pond Summary Sheets.
- MDOT SHA Water Quality Summary Sheet (WQSS) submitted to the Administration, Highway Hydraulics Division, for signature. See Section 3.17 for more details. Maps detailing the impervious areas added, impervious areas treated, pavement removed, redevelopment areas, and areas where existing treatment is lost.
- MDE SWM Waiver Applications that differ from those submitted with the Concept SWM Report. These shall be submitted to the Administration, Highway Hydraulics Division, for signature.
- MDOT SHA BMP Identification Forms (included in this package) with MDOT SHA BMP numbers indicated. The Design-Build Team is responsible to obtain BMP numbers for all SWM facilities from the Administration, Highway Hydraulics Division.

3.07.03.2 Surface Drainage Report

Upon completion of the project, the Design-Build Team shall submit two (2) copies of the Surface Drainage Report to the MDOT SHA HHD. The Surface Drainage Report shall include all drainage design computations performed according to the Administration's Highway Drainage Manual, drainage area mapping and schematics necessary to complete the design of the stormwater conveyances for the project.

All drainage computations shall be performed using the appropriate design charts within the Administration's Highway Drainage Manual and shall include clear references for all tables and charts used.

Culvert Analysis reports, when necessary for Waterway Construction Permit review and approval, shall be included as an attachment to the Surface Drainage Report and shall follow the format described below. The content shall be dictated by the MDE comment letter, approval or subsequent requirements issued by MDE in their review process.

3.07.03.2.1 Surface Drainage Report Format

- All the pages within the report shall be numbered and dated.
- The report shall be placed in an 8½ by 11 inch, 3-hole binder that allows for insertion of revisions and removal of old data.

- Revisions to report as required. The date of the revision shall be placed on all revised pages. Pages which are added or removed shall be indicated as such. Revisions shall be 3-hole punched for easy placement in the reports. A document shall be submitted with each report detailing all of the changes.
- The final approved report, including all maps and exhibits, shall be converted to PDF format file(s). The electronic file(s) shall be delivered to the Administration for their records.

3.07.03.2.2 Surface Drainage Report Contents

The report shall include, but not be limited to the following:

- Storm sewer design computations including schematics, inlet drainage area maps, 2 year inlet spacing, 10 year capacity, spread, 25 year hydraulic gradients, and structural design for non-standard drainage structures.
- Culvert analysis including 2, 10, 25 and 100 year frequency storms and design storms.
- Ditch computations and drainage area maps for ditch capacity, freeboard and lining stability.
- Evaluation of outfall stability, and outfall protection design, including photographs.
- Any deviations from the guidelines and Administration approvals for the deviations.
- Culvert service life verification.
- Inspection documentation and evaluation of existing drainage structures, storm drains and culverts not being replaced.

3.07.03.3 Erosion and Sediment Control (ESC) Report

The ESC Report shall contain all computations for the ESC design and can be either a separate report or can be included in the SWM report. The ESC Report shall conform to SWM Report formatting described above (3.07.03.1.1).

The ESC Report shall contain the following:

- Drainage area maps to control devices for each phase.
- Computations for sizing control devices.
- Plans and procedures for converting sediment control devices into stormwater management facilities.
- Tracking of E&S quantities throughout the duration of the project.

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 - Identification of and placement of controls in sensitive areas.
 - 3.07.03.4 Final Geotechnical Reports

The Design-Builder shall prepare Final Geotechnical Reports as described in TC 3.14 Geotechnical Performance Specification.

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TC 3.08 GUIDELINES AND REFERENCES

All Project services shall be provide in accordance with these specifications and the relevant requirements of the Guidelines and References listed in Table 1 unless otherwise stipulated in these specifications. Unless noted, the most recent version as of the date of issuance of this RFP for each Guideline and Reference shall apply. Guidelines and references in Table 1 are listed alphabetically by Author or Agency and the order is not intended to imply a priority of one document over any other. Should the requirements in any Guideline conflict with those in another or any other requirement in the Contract Documents, the strictest requirement as determined by the Administration shall govern. It is the Design-Builder's responsibility to obtain clarification for any unresolved or perceived ambiguity prior to proceeding with design or construction.

Table 1

Author or Title Agency A Guide for Transportation Landscape and Environmental Design, **AASHTO** 1991 AASHTO A Policy on Geometric Design of Highways and Streets, 2011 AASHTO **DARWin** Pavement Design Software AASHTO Guide for Design of Pavement Structures, 1993 AASHTO Guide for the Development of Bicycle Facilities, 2012 **AASHTO** Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004 **AASHTO** Guide Specifications for Structural Design of Sound Barriers, 2002 Highway Safety Design and Operations Guide, 1997 **AASHTO** AASHTO LRFD Bridge Design Specification, 7th Edition, 2014 **AASHTO** M288 - Geotextile Specification for Highway Applications, September 2007 **AASHTO** M320 - Performance-Graded Asphalt Binder AASHTO M323 - Superpave Volumetric Mix Design **AASHTO** Manual for Condition Evaluation of Bridges, 2nd Edition, 2011 AASHTO Manual on Subsurface Investigations, 1st Edition, 1988 R25 - Superpave Volumetric Design for Hot-Mix Asphalt AASHTO AASHTO Roadside Design Guide, 4th Edition 2011 with July 2015 Errata **AASHTO** Roadway Lighting Design Guide, 2005

Design-Build Guidelines and References

Luminaires and Traffic Signals, 3rd Edition for traffic signal structures

Standard Specifications for Structural Supports for Highway Signs,

	4th Edition for sign structures (overhead, cantilever, and ground mounted)
AASHTO	Standard Specifications for Transportation Materials and Methods of Sampling and Testing, 35th Edition, 2015
AASHTO	T 194 - Standard Method of Test for Determination of Organic Matter in Soils by Wet Combustion, 2008
AASHTO	T 88 - Standard Method of Test for Particle Size Analysis of Soils
AASHTO/AWS	D1.5M/D1.5: Bridge Welding Code, 2010
ACI	ACI 318 - Building Code Requirements for Structural Concrete, 2011
ACOE	HEC-RAS Software, Version 4.1.0
ADA	Americans with Disabilities Act Accessibility Guidelines
ANSI	ANSI A300 (Part 1) - American National Standard for Tree Care
	Operations - Tree, Shrub and Other Woody Plant Management -
	Standard Practices (Pruning), 2008
ANSI	ANSI A300 (Part 2) - American National Standard for Tree Care
	Operations - Tree, Shrub and Other Woody Plant Management -
	Standard Practices (Soil Management), 2011
ANSI	ANSI A300 (Part 3) - American National Standard for Tree Care
	Operations - Tree, Shrub and Other Woody Plant Management -
	Standard Practices (Supplemental Support Systems), 2013
ANSI	ANSI Z133.1 - Safety Requirements, 2012
ANSI	ANSI Z60.1 - American Standard for Nursery Stock, April 2014
ASTM	Annual Books of ASTM Standards
ASTM	D4694 - Standard Test Method for Deflections with a Falling-Weight-
	Type Impulse Load Device, 2015
ASTM	D6433 - Standard Practice for Roads and Parking Lots Pavement
	Condition Index Surveys, 2011
ASTM	E274 - Standard Test Method for Skid Resistance of Paved Surfaces
	Using a Full-Scale Tire, 2011
ASTM	E501 - Standard Specification for Standard Rib Tire for Pavement
	Skid-Resistance Tests, 2008
ASTM	E950 - Standard Test Method for Measuring the Longitudinal Profile
	of Traveled Surfaces within an Accelerometer Established Inertial
	Profiling Reference, 2009

ASTM	Standards in Building Codes, 2014
ATSSA	Quality Guidelines for Temporary Traffic Control Devices and
	Features, 2014
CFR	Code of Federal Regulations (CFR)
COMAR	Code of Maryland Regulations
COMAR	COMAR 15.20.07 - Agricultural Operation Nutrient Management
	Plan Requirements, 2000
County	County Roadway Standards
DNR	Article 5-103 - Reforestation
DNR	COMAR 08.07.02 - Roadside Tree Care
DNR	COMAR 08.19 - Forest Conservation
Dunnicliff	Geotechnical Instrumentation for Monitoring Field Performance, 1986
FEMA	44 CFR Part 10 - Environmental Considerations, October 2011
FEMA	44 CFR Part 9 - Floodplain Management and Protection of Wetlands,
	October 2011
FEMA	Conditional Letter of Map Revision (CLOMR)
FHWA	"Bridge Rails" Memorandum, August 1986 and updated May 1997
FHWA	23 CFR 940.11 - Project Implementation, April 2008
FHWA	Durability of Geosynthetics for Highway Applications, January 2001
FHWA	FHWA NHI-01-031 - Subsurface Investigations (Geotechnical Site
	Characterization), 2001
FHWA	FHWA-ED-88-053 Checklist and Guidelines for Review of
	Geotechnical Reports and Preliminary Plans, 2003
FHWA	FHWA-HI-97-013 - Design and Construction of Driven Pile
	Foundations – Volume I, 1997
FHWA	FHWA-HI-97-014 - Design and Construction of Driven Pile
	Foundations – Volume II, 1997
FHWA	FHWA-HI-98-034 - Geotechnical Instrumentation, 1998
FHWA	FHWA-NHI-00-043 - Mechanically Stabilized Earth Walls and
	Reinforced Soil Slopes Design and Construction Guidelines, 2000
FHWA	FHWA-NHI-05-037 - Geotechnical Aspects of Pavements, 2006
FHWA	FHWA-NHI-09-087 - Corrosion/Degradation of Soil Reinforcements
	for Mechanically Stabilized Earth Walls and Reinforced Soil Slopes,
	2009

FHWA	FHWA-NHI-10-016 - Drilled Shafts: Construction Procedures and
	LRFD Design Methods, 2010
FHWA	FHWA-RD-03-031 - Distress Identification Manual for the Long-
	Term Pavement Performance Program, 2003
FHWA	FHWA-SA-91-048 - Laterally Loaded Pile Analysis Program for the
	Microcomputer, (COM624P) Version 2.0
FHWA	FHWA-SA-94-035 The Osterberg Load Cell for Load Testing Drilled
	Shafts and Driven Piles, 1994
FHWA	FHWA-SA-97-070 - Micropile Design and Construction Guidelines,
	2000
FHWA	FHWA-SA-98-074 - DRIVEN 1.0 User's Manual: A Program for
	Determining Ultimate Vertical Static Pile Capacity
FHWA	FHWA-SA-98-086 - Ground Improvement Technical Summaries
	Volume I
FHWA	Geosynthetic Design and Construction Guidelines, 1998
FHWA	Geotechnical Engineering Circular No. 1: Dynamic Compaction, 1995
FHWA	Geotechnical Engineering Circular No. 2: Earth Retaining Systems,
	1996
FHWA	Geotechnical Engineering Circular No. 4: Ground Anchors and
	Anchored Systems, 1999
FHWA	Geotechnical Engineering Circular No. 5: Evaluation of Soil and Rock
	Properties, 2002
FHWA	Geotechnical Engineering Circular No. 6: Shallow Foundations, 2002
FHWA	Geotechnical Engineering Circular No. 7: Soil Nail Walls, 2015
FHWA	Geotechnical Engineering Circular No. 8: Design and Construction of
	Continuous Flight Auger Piles, 2007
FHWA	Ground Improvement Technical Summaries Volumes I and II
FHWA	Manual on Uniform Traffic Control Devices (MUTCD), 2009
	including Revisions 1 and 2 May 2012
FHWA	NCHRP Report 350 - Recommended Procedures for the Safety
	Performance Evaluation of Highway Features, 2004
FHWA	NCHRP Report 553 - Crashworthy Work Zone Traffic Control
	Devices, 1998 and later interim revisions
FHWA	NCHRP Report 672 - Roundabouts: An Informational Guide, 2nd

	Edition, 2010
FHWA	Standard Highway Signs, 2004 Edition & 2012 Supplement
FHWA	Traffic Noise Model, Version 2.5.
IEEE	Guide for Concept of Operations Document, 2007
IEEE	Guide for Developing System Requirements Specifications, 2009
IEEE	Independent Verification and Validation
IEEE	National Electric Safety Code, 2012
IES	DG-5-94 Recommended Lighting for Walkways and Class 1
	Bikeways, 1994
IES	RP-19-01 Roadway Sign Lighting
IES	RP-22-11, American National Standard for Tunnel Lighting, 2011
IES	RP-8-00, American National Standard Practice for Roadway Lighting,
	2000
ITE	Manual of Transportation Engineering Studies, 2nd Edition, 2010
ITE	Traffic Engineering Handbook, 7th Edition, December 2015
MDE	2000 Maryland Stormwater Design Manual, Appendix A,
	Landscaping Guidance for Stormwater BMPs, May 2009 Revision
MDE	2000 Maryland Stormwater Design Manual, Volumes I and II, May 2009 Revision
MDE	2009 Revision 2011 Maryland Standards and Specifications for Soil Erosion and
WIDL	Sediment Control
MDE	Antidegradation Review Checklist
MIDL	Major Linear Project Review Form
MDE	Antidegradation Applicant Review Checklist
	Enhanced Best Management Practices for Tier 2 Waters
MDE	Accounting for Stormwater Wasteload Allocations and Impervious
	Acres Treated - Guidance for National Pollutant Discharge
	Elimination System, August 2014
MDE	Clean Water Act Section 401, Water Quality Certification for MD 404
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MDE	COMAR 26.08.02.10 - Water Quality Certification
MDE	COMAR 26.17 - Water Management
MDE	COMAR 26.17.01 - Erosion and Sediment Control
MDE	COMAR 26.17.02 - Stormwater Management
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MDE	COMAR 26.17.04 - Construction on Nontidal Waters and Floodplains
MDE	Environmental Site Design Process & Computations, 2010
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MDE	Guidelines for Construction on Nontidal Waters and Floodplains
MDE	Maryland Erosion and Sediment Control Guidelines for State and
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MDE	Maryland Storm Water Design Manual, October 2000, Revised May
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MDE	National Pollutant Discharge Elimination System Municipal Separate
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MDE	Nontidal Wetland and Waterway Construction Permit Application and
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MDE	Stormwater Design Guidance – Addressing Quantity Control
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NEMA	National Electrical Manufacturers Association Standards
NFPA	502: Standard for Road Tunnels, Bridges and Other Limited Access
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NFPA	70: National Electrical Code, 2014
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NRCS	Pond Code MD-378, 2000
NTCIP	National Transportation Communications for ITS Protocol
OSHA	29 CFR 1910 - Occupational Safety and Health Standards
OSHA	29 CFR 1926 - Safety and Health Regulations for Construction
MDOT SHA	2035 LOS Wiring Diagram – Design Forecast Volumes
MDOT SHA	ABSCOUR Program
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MDOT SHA	Articulating Traffic Detector Mount (Plate ITS-21)
MDOT SHA	Bicycle Policy and Design Guidelines, January 2015
MDOT SHA	Book of Standards for Highways, Incidental Structures and Traffic Control Applications
MDOT SHA	Design Request Form Instructions and Guidelines
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MDOT SHA	Field Guide for Erosion and Sediment Control, May 2013
MDOT SHA	Flagger Policy at Signalized Intersections
MDOT SHA	Grass Channel Credit Paper
MDOT SHA	Guidance for the Use of Portable Changeable Message Signs (PCMS)
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MDOT SHA	Guidance on Maintenance of Traffic Alternatives Analysis (MOTAA),
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MDOT SHA	Guidelines for Application of Rumple Strips and Rumple Stripes,
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MDOT SHA	Guidelines for Preparing Stormwater Management Concept Reports,
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MDOT SHA	Guidelines for the Use of Dynamic Lane Merging Strategies,
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MDOT SHA	Guidelines for Traffic Barrier Placement and End Treatment Design,
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MDOT SHA	Guidelines for Traffic Barrier - Field Aid for Traffic Barrier
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MDOT SHA	Highway Design Policy and Procedure Manual
MDOT SHA	Highway Drainage Manual Design Guidelines, 2008
MDOT SHA	Highway Drainage Manual, December 1981 or as amended herein and

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	MDOT SHA	Office of Traffic and Safety Approved Product List for Temporary
MDOT SHA Office of Traffic and Safety Capacity/Queuing Analysis Procedu		Traffic Control Devices and Miscellaneous Items
	MDOT SHA	Office of Traffic and Safety Capacity/Queuing Analysis Procedures

	for Intersections
MDOT SHA	OOTS TEDD Traffic Control Devices Design Manual, July 2017
MDOT SHA	Overhead DMS Structure and Access (Plates ITS-10 to ITS-16)
MDOT SHA	Pavement and Geotechnical Design Guide, June 2016
MDOT SHA	Pavement Marking Material Selection Guidelines, Revised January 2016
MDOT SHA	Pedestal DMS Access System (Plates ITS-2 to ITS-7)
MDOT SHA	Pedestal DMS Access System (Plates ITS-8 and ITS-9)
MDOT SHA	Policy for the Use of Temporary Traffic Barrier in Work Zones,
	November 2008
MDOT SHA	Quality Assurance Toolkit Field Manual
MDOT SHA	Recommended Procedure for Determining Types of Left Turn Phasing
MDOT SHA	Roadway Delineation Policy
MDOT SHA	Roundabout Design Guidelines, October 2012
MDOT SHA	Roundabout Traffic Design Manual
MDOT SHA	Sediment and Stormwater Guidelines and Procedures for State
	Highway Administration (November 24, 2015)
MDOT SHA	SHA Office of Structures Standards for Ground Mounted Concrete
	Noise Barriers
MDOT SHA	SHA Stormwater Site Development Criteria - Review Guidelines,
	2010
MDOT SHA	SHA-MSP InterAgency Work Zone Service Agreement, 2009
MDOT SHA	Special Provisions and Special Provision Inserts to the Standard
	Specifications
MDOT SHA	Specifications for Consulting Engineer's Services, Volume II, Section
	VIII, April 1986
MDOT SHA	Standard Office of Traffic and Safety Shelf Typicals
MDOT SHA	Standard Specifications for Construction and Materials, 2017
MDOT SHA	Standard Specifications for Subsurface Explorations, 2012
MDOT SHA	Storm Water Management Safety Policy
MDOT SHA	Stormwater Management Site Development Criteria
MDOT SHA	Stormwater Management, Erosion and Sediment Control and
	Waterway Construction Permit Issues and Approaches
MDOT SHA	Stormwater NPDES Program - Standards Procedures Manual, 1981 or
	as amended herein and any revisions thereof

MDOT SHA	SWM Concept Report
MDOT SHA	Transportation Management Plans: Guidelines for Development,
	Implementation and Evaluation, November 2006
MDOT SHA	Type 332/334 Cabinet Details (Plates ITS-22 and ITS-23)
MDOT SHA	Type 332/334 Cabinet Foundation Detail (Plate ITS-17)
MDOT SHA	Utility Policy, Revised March 1998
MDOT SHA	V004-10 Surveyor
MDOT SHA	Work Zone Lane Closure Analysis Guidelines, November 2006
MDOT SHA	Work Zone Safety and Mobility Policy, 2006
MDOT SHA	Work Zone Safety Policy
MDOT SHA	Work Zone Safety Tool Box
MDOT SHA	Work Zones on 65/60 mph Roadways
MDOT SHA	Highway Noise Policy & Implementation Guidelines, Final, Effective
	Date July 13, 2011 (Revised August 19, 2011)
MDOT SHA	Application of Hydrologic Methods in Maryland, September 2010
/MDE	
MDOT SHA	Stormwater Management Process Agreements and Interpretations,
/MDE	April 2003
MDOT SHA	Stormwater Quality Management Banking Agreement, June 2, 1992
/MDE	and amended March 1, 1994 and August 2003
TRB	Accessible Pedestrian Signals: Synthesis and Guide to Best Practices,
	June 2007
TRB	Highway Capacity Manual, 5th Edition, 2010
TRB	TCRP Report 19 - Guidelines for the Location and Design of Bus
	Stops, 1996
USACE	Clean Water Act Section 404 Permit Application and Authorization
USACE USDA	Clean Water Act Section 404 Permit Application and Authorization The PLANTS Database (http://plants.usda.gov)

SCOPE OF WORK FOR DESIGN-BUILD

TC 3.09 ROADWAY PERFORMANCE SPECIFICATION

3.09.01 General

As needed to accomplish the project goals and/or Performance Requirements of this project, design and construct roadways in accordance with the requirements of this specification, including performance requirements, standards and references, design and construction criteria, and required submittals.

This section is also intended to allow the flexibility to make Project changes that produce benefit of savings to the Administration and Design-Builder without adversely affecting the essential functions and characteristics of the Project in terms of safety, traffic operations, desired appearance, durability, ease of maintenance, environmental protection, drainage, and other permitted constraints.

3.09.02 Guidelines

Roadway design and construction shall be in accordance with this Roadway Performance Specification and the relevant requirements of the Guidelines and References in TC 3.08.

3.09.03 Performance Requirements

Design and construct all roadways to meet the following performance requirements:

- A. Meet or exceed all Maryland Department of Transportation State Highway Administration, AASHTO and other roadway design and safety guidelines as referenced in TC 3.08, outlined in these specifications, and in accordance with sound engineering principles.
- B. Accommodate traffic volumes and levels of service as outlined in Traffic Performance Specification.
- C. All Roadway components shall be constructed within the defined right of way and easements.

3.09.04 Design and Construction Criteria

As needed to accomplish the project goals and/or Performance Requirements of this project the Design-Builder shall design and construct all roadway geometrics including horizontal alignment, vertical alignment, superelevation, cross slopes, lane widths, shoulder widths, medians, and clear zone grading in accordance with the requirements of this section and the guidelines for roadway design.

3.09.04.01 Design Criteria



The Design-Builder shall base the Roadway Design Criteria on the existing roadway conditions and information in the Highway Location Reference (HLR). The design speed shall be at least 5 MPH

above the posted speed.

The presence of roadway lighting shall not reduce the requirements for vertical sight distance on sag curves.

3.09.05 Typical Section

No changes to the typical section of the roadway are anticipated.

3.09.06 Cross Street Improvements

SCOPE OF WORK FOR DESIGN-BUILD

Cross street improvements are not anticipated.

3.09.07 Design Vehicle

The design vehicle for turning movements shall be appropriately based on the classification of the roadway and shall be submitted to the Administration in writing for approval. Approval of the design vehicle as appropriate shall be at the sole discretion of the Administration.

3.09.08 Roadside Barriers

Use of any type of roadside barrier shall be minimized to the extent practicable in favor of a clear zone graded typical section.

3.09.08.01 Traffic Barrier W-Beam

Existing roadside traffic barrier W-beam and end treatments within the project limits shall be replaced in kind if warranted based on the proposed design.

Where new roadside barrier is warranted based on the proposed design and AASHTO or other Guidelines, traffic barrier W-beam shall be used. Only galvanized steel traffic barrier W-beam shall be used.

The number and type of end treatments shall be minimized to the extent practical. Permanent Sand Filled Barrels will not be allowed. Traffic barrier end treatments shall match the finish of the adjacent W-beam traffic barrier.

3.09.08.02 Median Traffic Barrier

Where median traffic barrier is warranted based on the proposed design and AASHTO or other Guidelines only traffic barrier W-beam median barrier or 42" F-shape concrete median barrier shall be used. Concrete median traffic barrier shall be installed at locations where the median width is 16' 0" or less in the proposed condition.

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Traffic barrier w-beam median barrier shall be galvanized steel.

Concrete barrier shall include two 3" diameter PVC conduits.

Permanent Sand Filled Barrels will not be allowed for end treatments. Traffic barrier end treatments shall match the finish of the adjacent W- beam traffic barrier.

3.09.08.03 Single Face Concrete Traffic Barrier

Proposed use of single face concrete barrier will be subject to Administration approval and is generally to be avoided. Flaring of the barrier such that it reduces the width of the roadway including shoulder will not be permitted. Concrete barrier shall be 42" F-shape and shall include two 3" diameter PVC conduits.

3.09.08.04 Curb

Vertical curb will not be allowed on any roadway with a posted speed greater than 40 mph. Asphalt curb will not be allowed.

3.09.09 Pedestrian and Bicycle Facilities

There are no new sidewalks proposed as part of this project. Sidewalk replacements shall meet applicable standards, guidelines and requirements of this Request for Proposals.

Existing bicycle compatibility that is impacted by the project shall be replaced in kind. Maintenance of existing bicycle compatibility during construction shall be per applicable standards, guidelines and requirements of this Request for Proposals.

3.09.10 Access to SWM facilities

Maintenance vehicle access shall be provided to SWM and other facilities in accordance with Planting and Landscape Architecture and Drainage Performance Specifications.

3.09.11 Planned Projects

It is the Design-Builder's responsibility to coordinate with the Administration and local government agencies to determine if there are any adjacent projects, planned projects or projects that may be affected by the Design-Builder's intended project. The Design-Builder shall coordinate their efforts with those projects.

3.09.12 Construction Stakeout

Refer to SP – Section 107 – Construction Stakeout for Design-Build Projects.

3.09.13 Adjacent property Owner Coordination

The Design-Builder shall define right-of-way and easement lines of the Project for adjacent property owners, promptly upon request. The Design-Builder shall reset any disturbed or destroyed property corner(s) adjacent to the project upon request from the owner. The Design-Builder shall provide fencing for any properties which has an existing fence disturbed by construction. The Design-Builder shall reset the existing fence or provide black vinyl coated chain link fence with privacy slats. The fence shall be reset or replaced on the same day it is taken down. Once construction is complete, the existing fence which has been removed shall be reset or replaced by the Design-Builder. Any existing fence damaged shall be replaced by the Design-Builder in-kind with the new fence of the same material and aesthetics. Removal, relocation, or replacement of an existing fence shall be coordinated with the owner of the fence and adjacent property owners who may be affected by the fence construction. Every effort should be made to accommodate the scheduling needs of the property owners during fence construction, including those who have animals on the property.

3.09.14 Sight Distance at Intersections and Crossings

It is the Design-Build Teams responsibility to ensure adequate sight distance is provided on the project. The Design-Build Team's sight distance calculations shall be provided as part of any Design-Build Team roadway plan submittals for all intersection, U-turn movements, and/or crossings at no additional cost to the Administration. At a minimum Location/Description of intersection or crossing type, design speed(s), AASHTO Case used, sight distance required and sight distance provided for a car and for the design vehicle. Additional information on the Design-Build Team's sight distance calculations may be requested by the Administration at no additional cost to the Administration.

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TC 3.10 PAVEMENT PERFORMANCE SPECIFICATION

3.10.01 General

Pavement design is not anticipated on this project. It is the responsibility of the Design-Build team to maintain all existing roadways and paved facilities. Any damage to existing roadways or paved facilities is the sole responsibility of the Design-Build Team and shall be remediated at no additional cost to the Administration. Any pavement design for remediation shall be the responsibility of the Design-Builder and done per applicable guidelines and standards for the applicable owner agency and approved in writing by said agency prior to work progressing.

TC 3.11 STRUCTURAL DESIGN PERFORMANCE SPECIFICATION

3.11.01 General

Design and construction of new small structures or bridge structures are not anticipated on this project. It is the responsibility of the Design-Build team to maintain all existing structures. Any damage to existing structures is the sole responsibility of the Design-Build Team and shall be remediated at no additional cost to the Administration. All remediation shall be done per applicable guidelines and standards for the applicable owner agency and approved in writing by said agency prior to work progressing.

SCOPE OF WORK FOR DESIGN-BUILD

TC 3.12 TRAFFIC PERFORMANCE SPECIFICATION

3.12.01 General

Design and construction of new traffic control devices (TCD) is not anticipated on this project. It is the responsibility of the Design-Build team to maintain all existing traffic control devices. Any damage to existing traffic control devices is the sole responsibility of the Design-Build Team and shall be remediated at no additional cost to the Administration. All remediation shall be done per applicable guidelines and standards for the applicable owner agency and approved in writing by said agency prior to work progressing.

TC 3.13 LANDSCAPE AND REFORESTATION DESIGN AND CONSTRUCTION PERFORMANCE SPECIFICATIONS

3.13.01 General

The Design-Builder shall design, install, and establish, landscape plantings associated with the project in accordance with this specification. It is the responsibility of the Design-Builder to determine tree locations based on existing and proposed signs, underground and overhead utility locations, AASHTO and Administration setback requirements, adjacent land uses, and other site constraints.

This project requires the Design-Builder to have a Professional Landscape Architect (PLA), licensed to practice in the State of Maryland, with at least 10 years of experience related to highway corridor landscape design and construction. The PLA will address the functional and aesthetic needs of the project, in collaboration with all other disciplines for the Project. This includes the preparation and implementation of design responses to project commitments. The PLA shall understand MDOT SHA's context sensitive solutions process as outlined in the *MDOT SHA Landscape Design Guide (LDG)*; be knowledgeable of vegetation native to each of the physiographic regions of Maryland; be experienced in the requirements of the Maryland Forest Conservation Act, the Maryland Reforestation Law and Maryland Roadside Tree Law; be experienced in MDE and MDOT SHA requirements for stormwater management and associated plantings, be familiar with best practices for repair of vegetated slopes, and be knowledgeable about the *LDG* and the Landscape Chapter of MDOT SHA's *Highway Construction Cost Estimating Manual (Estimating Manual)*.

3.13.02 Guidelines and References

Design and construction of landscape and reforestation plantings shall be in accordance with this Landscape and Reforestation Design Performance Specification and the relevant requirements of the Guidelines and References in TC Section 3.08.

3.13.03 Preservation of Trees and Woodlands

The Design-Build Team shall design and construct the project to minimize the amount of healthy, native, trees removed. In addition, the MDOT State Highway Administration (MDOT SHA) will require that the project design avoid or minimize impacts to existing tree stands and specimen trees through tree protection measures in accordance with this Landscape and Reforestation Design Performance Specification and the relevant requirements of the Guidelines and References in TC Section 3.08. The Design-Builder shall design and implement sound tree protection measures during construction in accordance with the requirements of the Administration's 2017 *Standard Specifications for Construction and Materials (SSCM)* Section 120-Tree Preservation Area.

1. Impacts to individual trees, woods, and forest areas occurring as part of this project,

including, but not limited to: crown and branch pruning, tree clearing, and root pruning shall be in accordance with the Maryland Forest Conservation Act, Maryland Reforestation Law, and/or Maryland Roadside Tree Law as applicable and Section 120-Tree Preservation Area. Generally, stormwater management and outfall repair projects are classified as non-linear highway projects and are subject to the MD Forest Conservation Act. Sites exempt from MD FCA as per COMAR and sites otherwise determined to be exempt by the Maryland Department of Natural Resources Forest Service (DNR-FS) will fall under the MD Roadside Tree Law, provided tree impacts on the site are less than 1 acre.

- 2. The Design-Builder is responsible for maintaining compliance with the USDA Federal Emerald Ash Borer (EAB) Quarantine as well as MD Dept of Agriculture requirements regarding EAB. Regulated materials for the EAB Quarantine may include the following:
 - a. Emerald Ash Borer
 - b. Hardwood firewood
 - c. Any piece of Fraxinus spp. (Ash), including cut or fallen, living or dead.
 - d. Any uncomposted Ash chips or uncomposted Ash bark, larger than 1 inch in any two dimensions.
- 3. The Design-Builder is responsible for maintaining compliance with the MDA Thousand Cankers Disease Quarantine Order #15-01, which covers "all of Cecil County that is: (a) south of the Pennsylvania state line, (b) north of I-95, and (c) between MD Rte. 213 and the Delaware state line." The Design-Builder is to comply with modifications to the quarantine requirements and/or extensions to the quarantine area by MDA or USDA.
- 4. The Design-Builder shall employ the services of an Qualified Professional who is a Maryland Registered Forester, Maryland Licensed Landscape Architect, ISAcertified Arborist, Qualified Professional as certified by DNR-FS, and/or a Maryland Licensed Tree Expert (LTE) to perform the following activities:
 - a. Conduct an on-site inspection to determine the presence and location of specimen and/or significant trees within the limits of disturbance plus 30 feet beyond the limits of disturbance. Specimen trees are defined as trees with a Diameter at Breast Height (DBH) of 30 inches or greater, or at least 75% of the DBH of the MD State Champion of the species, whichever DBH measurement is smaller. Significant trees are defined as trees with a DBH of 24 inches to less than 30 inches or at least 50% of the DBH of the MD State Champion of the Species.
 - b. Identify critical root zones of specimen and/or significant trees where the trunk is located within the limits of disturbance or up to 30 feet beyond the limits of disturbance. Critical root zones shall be defined as 1 foot of radius per 1 inch of Diameter at Breast Height (DBH) for trees less than 30 inches DBH; and 1.5 feet of radius per inch of DBH for trees 30 inches or greater.

- c. Evaluate general health, species composition, and characteristics of forest stands and specimen trees to determine priorities for preservation.
- d. Conduct field reviews and prepare Roadside Tree Permit Applications, Reforestation Site Reviews, and full or simplified Forest Stand Delineations where required by DNR-FS for FCA compliance.
- e. The Design-Builder shall clearly indicate tree removals and tree protection measures on the erosion and sediment control plans to coordinate tree protection measures with erosion and sediment control measures.
- 5. An LTE shall provide direct oversight of tree work during construction as required by State Law and/or as described in Sections 712 through 716 in the *SSCM*.
 - a. The LTE shall conduct a constructability review of tree protection measures on erosion and sediment control plans, and adjust protection measures where necessary to accommodate impacts from controls.
 - b. The LTE shall maintain project compliance with the USDA Quarantine on the Fraxinus (Ash) species and MDA Quarantine on Black Walnut; to include providing a plan for disposal of trees impacted by the project, subject to the approval of MDA. The Design-Builder is advised that removal of Black Walnut from project sites may be restricted or prohibited in areas covered by the MDA Quarantine.
- 6. The Design-Builder shall include tree preservation, tree protection and impact minimization measures, and tree removals on erosion and sediment control plans and ensure tree protection measures are coordinated with the sequence of construction.

3.13.03.01 Department of Natural Resources Forest Service Coordination

The Design Builder is to obtain the necessary permits and/or approvals under the Maryland Forest Conservation Act (FCA), Maryland Reforestation Law (Reforestation Law), and/or Maryland Roadside Tree Law (Tree Law) from MD Department of Natural Resources Forest Service (DNR-FS) for impacts to trees and forest areas within the proposed limits of disturbance for each site prior to installing erosion and sediment controls or clearing. Field work to inventory tree and forest resources as well as preparation of plans indicating forest and tree impacts, preservation areas, and tree protection measures are the responsibility of the Design Build Landscape Architect, or other approved professionals as per 3.13.03.4.

1. Tree removal or other work impacting the critical root zones of State or County Champion Trees will be prohibited without approval by DNR-FS and the concurrence of the Administration. Replacement of Champion Trees removed without DNR-FS and Administration approval will be tree plantings of at least 2 in.

caliper size totaling one caliper inch for every one caliper inch of damaged or removed tree.

2. The Design Builder shall be responsible for replacing specimen or champion trees of fair to good condition outside of the LOD that are damaged or removed by construction operations. The replacement will be tree plantings of at least 2 in. caliper size totaling one caliper inch for every one caliper inch of damaged or removed tree.

3. The Design-Build Team is to perform the necessary field inventory and prepare the forest and tree impact plans as well as mitigation planting plans for review by MD Department of Natural Resources Forest Service (DNR-FS) in accordance with the applicable regulation.

4. The Design-Builder shall provide all documentation required by DNR-FS for reviews and approvals. The Design Build Team shall attend site review meetings with DNR-FS if requested by DNR-FS or the Administration. Compliance with additional DNR-FS requirements or conditions associated with approval modifications shall be the responsibility of the Design Build Team.

3.13.03.02 Forest and Tree Impacts Mitigation

The Design Builder shall maximize on-site individual tree and/or reforestation mitigation for impacts to trees and/or forest areas per MD Forest Conservation Act (FCA), MD Roadside Tree Law, and/or MD Reforestation Law as applicable.

- 1. Forest Conservation Easements (FCE) are not to be placed on Administration Rights-of-Way; FCA reforestation or afforestation requiring a FCE will be provided offsite by the Design-Builder, in accordance with COMAR and as approved by DNR-FS.
- 2. Reforestation or afforestation that does not require a FCE may be planted in Administration Rights-of-Way in accordance with the *LDG* and in accordance with the mitigation priorities noted in 3.13.02.01.
- 3. Mitigation for all impacts shall be the responsibility of the Design-Builder, and may include a site search for offsite mitigation, additional agency reviews and approvals, reforestation design, offsite forest banking, invasive species management, right of way acquisition, construction, and extended maintenance agreements.
- 4. The order of preference for the location of mitigation tree plantings, excluding FCA plantings required to be installed in an FCE is as follows:

- a. Cleared MDOT SHA land within the site limits adjacent to existing, preserved forest areas and not in locations reserved for future roadway widening or other improvements.
- b. Cleared MDOT SHA land within the site limits adjacent to existing, preserved wetlands, waters of the U.S., wetland buffers, or riparian buffers, and not in locations reserved for future roadway widening or other improvements.
- c. Cleared MDOT SHA land within the site limits that is not reserved for future roadway widening or other improvements and provides a screening benefit for adjacent sensitive land uses.
- d. Cleared MDOT SHA land within the site limits that is not reserved for future roadway widening or other improvements.
- e. Cleared MDOT SHA land within the watershed limits adjacent to existing, preserved forest areas and not in locations reserved for future roadway widening or other improvements.
- f. Cleared MDOT SHA land within the watershed limits adjacent to existing, preserved wetlands, waters of the U.S., wetland buffers, or riparian buffers, and not in locations reserved for future roadway widening or other improvements.
- g. Cleared MDOT SHA land within the watershed limits that is not reserved for future roadway widening or other improvements.
- h. Cleared MDOT SHA land within the county limits adjacent to existing, preserved forest areas and not in locations reserved for future roadway widening or other improvements.
- i. Cleared MDOT SHA land within the county limits adjacent to existing, preserved wetlands, waters of the U.S., wetland buffers, or riparian buffers, and not in locations reserved for future roadway widening or other improvements.
- j. Cleared MDOT SHA land within the county limits that is not reserved for future roadway widening or other improvements.
- k. Cleared MDOT SHA land within the contract limits adjacent to existing, preserved forest areas and not in locations reserved for future roadway widening or other improvements.
- 1. Cleared MDOT SHA land within the contract limits adjacent to existing, preserved wetlands, waters of the U.S., wetland buffers, or riparian buffers, and not in locations reserved for future roadway widening or other improvements.

- m. Cleared MDOT SHA land within the contract limits that is not reserved for future roadway widening or other improvements.
- n. Offsite areas on MDOT SHA land in coordination with, and pending the approval of, MDOT SHA and DNR-FS.
- 5. Revegetate land disturbed by construction activities as soon as practical after construction is completed in accordance with the Drainage, Stormwater Management, and Erosion & Sediment Control, and Landscape & Reforestation Design and Construction Performance Specifications.
- 6. Any mitigation required for Forest and Tree Impacts Mitigation shall be at no additional cost to the Administration and shall not be cause for any claim or time extension.

3.13.04General Landscape Design and Construction Requirements

The Design-Builder shall design, construct, and establish landscape, reforestation, and mitigation plantings within the limits of each project site. The Design-Build Team shall coordinate the Reforestation and Landscape Plans with other elements of work to be performed under the Contract including, but not limited to: grading, stormwater management facilities and ancillary structures, drainage swales, storm drain, stormwater management BMP outfalls and cross culvert outfalls, utilities, paved areas, maintenance access ways, traffic control devices, and lighting.

- 1. If the Design-Builder or SHA identifies a conflict between the Landscape Plans and other plan sheets or as-built conditions during design or in construction, the Design-Builder shall be responsible for modifying the plans and/or correcting conflicts in the construction.
- 2. Furnish seed and seed mixes according to the *SSCM* and in accordance with applicable State and Federal Law. The Design-Builder may submit requests to modify MDOT SHA seed mixes or develop custom seed mixes. These mix requests shall be submitted in writing for approval to the Administration. Approval of modifications shall be at the sole discretion of the Administration.
- 3. Plant selections shall be appropriate for the field environmental conditions of the planting site, including microclimate, air and water-borne salt, drainage, soil chemistry and pH. Recommended plant species, minimum sizes per ANSI standards, forms, and spacing or density requirements are listed in each of the Landscape Zones. The Design-Builder may reference the MDOT SHA Preferred Plants List (PPL) for additional acceptable species suited to MD physiographic regions in which the site is located. Written requests for substitution of other species, selections, and cultivars, shall be submitted in writing for approval to the Administration. Approval of modifications shall be at the sole discretion of the Administration.

4. The Design-Builder may install wildlife damage prevention devices to protect the proposed landscaping. Design, installation, and maintenance of wildlife damage prevention devices and replacement of landscaping damaged by wildlife during construction, including the Plant Establishment Phase, will be the responsibility of the Design-Builder.

3.13.04.01 Landscape, Tree Mitigation, and Reforestation Plans

The Design-Build Landscape Architect shall prepare a set of Landscape Plans for Landscaping and Reforestation including the following information as well as information required by the *LDG* and other applicable guidelines. Refer to TC Section 3.13.08 Landscape Submittals for submittal requirements.

- 1. Environmental/surface features, extending at least 100 ft. beyond the Proposed Right-of-Way or Temporary Construction Easements, whichever distance is greater. Include ownership and parcel numbers for each adjacent parcel.
- 2. Critical Root Zones for specimen and champion trees. For the purpose of this contract, critical root zones are defined as 1 foot of radius per inch of DBH (Diameter at Breast Height) for trees less than 30 inches DBH; and 1.5 feet of radius per inch of DBH for trees 30 inches or greater.
- 3. Tree preservation measures and details including, but not limited to, fencing, signage, tree planking, root protection, fertilizing, root aeration, tree branch pruning, root pruning, and sequencing of construction indicating any additional requirements for tree preservation not identified in the specifications. Sequence of construction shall be coordinated with Erosion and Sediment Control Plans.
- 4. Existing roadway and incidental structures to remain, including utilities.
- 5. Combined Limits of Disturbance for all erosion and sediment control phases.
- 6. Proposed improvements, including traffic control devices, highway and incidental structures, drainage features, storm drain, SWM facilities, ditches, slope repair areas including rip-rap, new and relocated utilities, etc.
- 7. Areas of subsoil and topsoil placement, including type (salvaged or furnished) and depth.
- 8. Soil Enhancement Areas. Areas where the existing pavement is demolished are designated as Soil Enhancement Areas, where the base and sub base are to be excavated and loosened, and any debris is to be removed. These areas are to be delineated on the plans within the appropriate phase of work.
- 9. Areas of soil stabilization matting (SSM) placement, including type of SSM as per Section 709 of *SSCM*.

- 10. Type of permanent vegetation, including but not limited to: Bioretention Meadow Establishment, Turfgrass Establishment, Meadow Establishment, Shrub Seeding, and Turfgrass Sod Establishment.
- 11. Density and quantity of plantings, including plant symbology and labels
- 12. Limits of constructing planting beds
- 13. A schedule of materials, indicating plant quantities for each type and size of plant material, proper nomenclature for plant species, size, form, and root specifications as per ANSI standards, and proposed spacing per these specifications. Site schedules as well as a master project plant schedule are to be submitted as part of the project asbuilts.
- 14. Site location(s) for on-site site reforestation or tree planting areas and vicinity map for off-site reforestation and tree planting areas (if so required).
- 15. Vicinity maps, and plans for off-site reforestation and tree planting areas (if so required).
- 16. Areas of proposed reforestation requiring long-term maintenance agreements as per DNR-FS.
- 17. Additional information as required by the *LDG*, MDOT SHA, DNR-FS, MDE, or Anne Arundel Soil Conservation District.

3.13.04.02Topsoil and Subsoil

The Design-Builder shall determine salvageable quantities of subsoil and topsoil available within the Limits of Disturbance, amend as necessary to meet Section 701 of the *SSCM*, and provide additional quantities of furnished soubsoil and topsoil as necessary to successfully establish required vegetation for soil stabilization, mitigation, and all landscape plantings. The Design-Builder shall provide the appropriate soil profile, including subsoil and topsoil, for proposed vegetative treatment and/or landscaping as per the *LDG* and as specified below.

- 1. The Design-Builder shall provide topsoil and subsoil, in accordance with *SHA Standard Specifications for Construction and Materials (SSCM)*, Section 701, and *Estimating Manual* Section 701 and as per the following:
 - a. A minimum of 12 inch depth existing or placed subsoil is required in all areas to be landscaped, except where approved by the Administration. This requirement may be reduced or waived on slopes 2:1 or steeper, in areas of shallow rock, and for engineered reinforced slope systems at the discretion of the Administration.

- b. In locations where landscape trees and shrubs in planting pits or planting beds are to be installed, a minimum of 24 inch depth subsoil is required.
- c. Install a minimum of 4 inch depth topsoil in Turfgrass Establishment and Turfgrass Sod Establishment areas. This requirement may be reduced on slopes 2:1 or steeper at the discretion of MDOT SHA, provided the soil profile allows for successful establishment of permanent vegetation.
- d. Where vegetation is proposed on slopes 2:1 or steeper that are constructed primarily of stone rather than subsoil, install a minimum of 4 inch depth topsoil.
- e. Install a minimum of 6 inch depth topsoil in landscape planting locations and in curbed medians that are to receive Turfgrass Establishment, Turfgrass Sod Establishment, or landscape planting.
- f. In stormwater management facilities, areas of Bioretention Soil Mix will be considered to meet the requirements for subsoil and topsoil placement.
- 2. The Design-Builder shall be responsible for removing unsuitable subgrade, loosening highly compacted subgrade, and furnishing additional subsoil and topsoil as necessary to provide successful plant establishment. The Design-Builder shall document compaction to between 72-82 percent or permeability of 1 inch per hour for a minimum of 2 locations on each site within areas converted from paving to planting area.
- 3. Areas where the existing roadway has been removed and not replaced are designated as Soil Enhancement Areas. The base and sub base are to be excavated and loosened, and construction debris is to be removed. These areas are to be delineated on the roadway plans, within the appropriate phase of work. Remove unsuitable subgrade, loosen highly compacted subgrade, and furnish additional subsoil and topsoil to provide successful plant establishment.
- 4. The Design-Builder shall submit samples of salvaged and furnished subsoil and topsoil to a MDOT SHA-approved lab to be tested in accordance with *SSCM* Section 920. Testing results are to be kept on file by the Design-Builder. (Refer to TC Section 3.13.08.)
- 5. The Design-Builder shall prepare a Nutrient Management plan in accordance with the MD Nutrient Management Program when required by Maryland Law, prior to applying regulated fertilizers or other soil amendments. Following soil. The Design-Builder may elect to amend existing subsoil or topsoil through screening and addition of amendments to meet the requirements in the *SSCM*.
- 6. The Design-Builder shall ensure that soil which is to be planted, seeded, or sodded is properly prepared and/or amended in accordance with the approved

Nutrient Management Plan and *SSCM* 701.03.01 (f) to provide successful plant establishment.

3.13.04.03 Utility and Safety Setbacks.

The Design-Builder shall avoid conflicts between proposed landscaping and existing/proposed/relocated utilities and maintain safety setbacks from roadsides for vehicle recovery zones and sight distance per *AASHTO's Roadside Design Guide* and the *MDOT SHA Landscape Design Guide (LDG)*. The Design-Build Landscape Architect shall be responsible for resolving conflicts identified by the Design-Builder, the Administration, or utility owners during design and construction.

1. Offset trees and shrubs from underground and overhead utilities, power cabinets, electrical transformers, lighting, and traffic control devices in accordance with the *LDG* and the District Utility Engineer. Additional setbacks may be required at the discretion of the utility owner or the District Utility Engineer.

- 2. Prior to planting, adjust tree and shrub layout where necessary to maintain offsets from new or relocated utilities. Trees and shrubs installed without necessary utility offsets will be relocated at no cost to the Administration.
- 3. The mulch edge of planting pits for individual trees and shrubs and the edge of mulched landscape beds shall be planted a minimum of 7 ft. from the centerline of swales and ditches. Larger setbacks may be required for lined and/or rip-rapped swales or swales with higher volume or velocity of flow.
- 4. Trees shall be offset from the edge of travel lanes according to the roadway section and design speed. Refer to the *LDG*.
- 5. Planting layouts shall be designed to offset trees from bridges and other structures as required for maintenance and inspection access. Large trees are to be offset at least 30 feet from bridge parapets and abutments. Offset trees from overhead sign structures to maintain sign visibility at mature plant size without tree branch pruning.

6. Additional setbacks may be required for safety clear zones/recovery areas, to maintain sight distance, and/or for maintenance needs. Refer to the AASHTO's *A Policy on Geometric Design of Highway and Streets (2011 edition)* for interchange and intersection sight distance requirements not included in the *LDG*.

3.13.04.04 Low Maintenance Landscape Design.

Roadside plantings, including but not limited to: landscaping and screening, reforestation, revegetation, and stormwater management facility landscaping shall be designed following an approach that balances safety, environmental

stewardship, maintenance requirements, and aesthetic appeal. The Design-builder shall develop designs that minimize landscape maintenance requirements as follows:

- 1. The Design-Builder shall arrange individual tree plantings, landscape beds, and plant massings to accommodate mowing and other maintenance operations in locations within or abutting areas of regularly mowed turfgrass and where otherwise requested by the Administration.
- 2. The Design-Builder shall use Turfgrass Establishment or Turfgrass Sod Establishment in locations requiring regular mowing maintenance, in areas were vegetation height must be controlled to maintain sight distance such as merge areas and roadside shoulder areas, where required in SWM facilities, and elsewhere as specified in the Contract Documents.
- 3. In locations where regular mowing is infeasible or unnecessary for maintenance or safety considerations, (i.e. on areas of future roadway expansion, slopes steeper than 4:1 or in reforestation, revegetation, or other naturalized areas) the Design-Builder shall specify meadow establishment, Shrub Seeding, and/or other native seeding approved by THE ADMINISTRATION-LAD in lieu of Turfgrass Establishment or Turfgrass Sod Establishment.
- 4. Landscape plantings associated with SWM facilities and outfalls will not receive regular maintenance and are to be designed to naturalize. Appropriate trees, shrubs, and tough perennials suited for challenging growing conditions and able to outcompete invasive and undesirable vegetation are to be used.
- 5. Where existing landscape plantings, including ornamental tree plantings and shrub and perennial plantings are impacted by contract work, suitable low-maintenance replacements are to be provided.

3.13.05 PLANTING ZONES

Design and install landscape and mitigation plantings that are appropriate to site conditions and constraints. The Design-Build Team shall be responsible for ensuring that the requirements for planting densities, plant species, species mix, and spacing meet those that are provided in this document. The General Landscape Design and Construction Requirements and the MDOT SHA *Landscape Design Guide (LDG)* apply to all plantings within the project limits.

The following Planting Zones are proposed within the limits of this Contract.

General Aesthetic Intent: Sites in this contract will be located in a variety of contexts from urban, to suburban, to rural and plantings are intended primarily to restore areas to prior or better condition following construction of improvements. Sites may be found in

Maryland's 3 physiographic regions, requiring variations in the planting palette and landscape approaches to blend plantings into the site context. Plantings will primarily be intended for site restoration, required mitigation, erosion prevention, screening, and enhancement of SWM function.

3.13.05.01 ZONE 1 TURFGRASS

Primary Aesthetic Intent: Zone 1 shall provide Turfgrass Establishment (*SSCM* 705) or Turfgrass Sod Establishment (*SSCM* 708) in all locations within the project limits, including within other Zones, where regular mowing is required per the latest MDOT SHA Turfgrass Management Guidelines, including disturbed turf areas on private properties, curbed medians, grass swales, and ditches.

Turfgrass Establishment and Turfgrass Sod Establishment may both be used to establish turfgrass. Use of Turfgrass Sod Establishment is recommended in locations where rapid stabilization is desired, including but not limited to: areas of concentrated flow, areas adjacent to pedestrian walkways, and adjacent to areas of well-maintained turf on commercial or residential properties.

3.13.05.02 ZONE 2 NATURALIZED

Primary Aesthetic Intent: Zone 2 shall be utilized where regular mowing maintenance is not required to maintain sight distance per MDOT SHA Mowing policy, the *LDG*, and MDE and MDOT SHA SWM Design Guidelines.

The Design-Builder shall specify Meadow Establishment as per *SSCM* Section 707 or use a customized seed mix approved by the Administration in locations where mowing frequency is limited to once or twice annually as necessary to control the growth of woody vegetation. Type D soil stabilization shall be specified with Meadow Establishment on slopes steeper than 4:1 and where straw mulch is insufficient for preventing erosion and retaining soil for establishment of permanent vegetation.

3.13.05.03 ZONE 3 SCREEN PLANTING

Primary Aesthetic Intent: Zone 3 shall reestablish or augment screening and buffering of the roadway for adjacent residences which will lack sufficient buffer following construction of improvements. Insufficient buffer is defined as 200 linear feet from the edge of roadway to the nearest edge of the residence and less than 25 percent of the distance composed of existing trees and shrubs to remain. Screen Plantings are to meet the following requirements:

1. Screen plantings are to consist of a mix of deciduous and evergreen trees and large shrubs, arranged to provide a year-round screen.

- 2. Screen plantings may be necessary to augment existing plantings or forest areas to remain or to augment the visual screening benefit of proposed reforestation areas.
- 3. Recommended plant species, minimum acceptable sizes, and maximum spacing are listed below. Additional species are listed in the *MDOT SHA Preferred Plant List* (PPL). Written substitution requests for use of other species, selections, cultivars, or sizes shall be submitted in writing for approval to the Administration. Approval of modifications shall be at the sole discretion of the Administration.
- 4. For Narrow Screen Planting Areas, consisting of areas 50 ft. plantable width or narrower, graphically indicate locations of individual trees on the plans and provide medium and large stock sizes of evergreen trees as per the following:
 - a. Install pyramidal and broad-spreading evergreens, 15 ft. on center when installed in multiple staggered rows and install at 12 ft. on center when only single row of planting is feasible.
 - b. For screen plantings under 120 linear feet (LF), planting may consist of 1 or more evergreen species.
 - c. For screen plantings exceeding 120 LF and shorter than 240 LF, planting shall consist of at least 2 evergreen species.
 - d. For screen plantings 240 LF or longer, planting shall consist of at least three 3 evergreen species.
 - e. Stock size is to be at least 5 ft. ht. B&B/#20 CG.
 - f. Large evergreen shrubs shall be used to augment screen plantings in locations where utility conflicts or other site constraints preclude installation of evergreen trees.
 - g. Non-native evergreen and semi-evergreen species such as Ilex Nellie r. Stevens, Picea abies, Picea omorika, Thuja 'Green Giant', Viburnum x Pragense, Viburnum rhytidophylloides 'Allegheny, etc., may be utilized in Narrow Screen Planting Areas.
- 5. For Wide Screen Planting Areas, consisting of plantable areas greater than 50 ft. and up to 100 ft. wide when measured perpendicular from the edge of pavement, provide evergreen and deciduous trees and shrubs as per the following:
 - a. Provide screen plantings composed of rows or massings of major deciduous trees, minor deciduous trees, evergreen trees, and large shrubs. Use native species and cultivars of natives. Where indicating wide screen plantings with a graphic hatch in lieu of showing locations of individual trees, provide

typical planting layout details indicating approximate size of quantities of plants in single-species massings.

- b. Wide Screen Planting areas may count toward the Project's Reforestation Law or Roadside Tree Law mitigation requirements if they meet the applicable requirements.
- c. Ornamental tree species and shrubs shall be substituted for shade tree and evergreen tree species when overhead utilities and other site constraints preclude the use of shade tree species.
- d. Plantings shall be composed of planting stock in various sizes installed at the following rates to provide 250 stems per acre:

Small: 100 trees per acre composed of:(66) Single leader deciduous trees 5 ft. ht. #5 CG(34) Evergreens 3 ft. ht. B&B, #5 CG

Medium: 75 trees per acre composed of:
(25) Single leader major deciduous trees 1¼ in. cal. B&B/#10 CG
(25) Multi-stemmed minor deciduous trees, 5 ft. ht. B&B, or single leader minor deciduous trees 1¼ in. cal. B&B/#10 CG
(25) B&B or evergreen trees 5 ft. ht. B&B/#15 CG

Large: 32 trees per acre composed of:
(16) Single leader major deciduous trees 1 ³/₄ in. cal. B&B
(8) Multi-stemmed minor deciduous trees, 7 ft. ht., B&B or single leader, 1 ³/₄ in. cal. B&B
(8) Evergreens 7 ft. ht. B&B

Shrubs: 150 shrubs per acre
(50) 36 in. height B&B/#5 min CG
(100) 24 in. height CG #3 min CG
Minimum 4 species (Specify height and container classes of container-grown stock according to ANSI Z60.1-.2014 or the latest edition)

- 6. Plant selections shall be appropriate for the conditions of the planting site. The design shall maintain sight lines at all times per the *LDG* and the AASHTO's *A Policy on Geometric Design of Highways and Streets*.
- 7. This planting zone shall be under-planted with Turfgrass or Meadow Establishment per the MDOT SHA Turfgrass Management Guidelines, except where plantings are installed the landscape beds.
- 8. Masses of shrubs are to be installed in planting beds in Narrow Screen Planting Areas.

9. Representative plant species, and maximum spacings are listed as follows:

ZONE 3 PLANT MATERIAL:		
Botanical Name (Common Name)	<u>Maximum</u>	Notes
Shade Tree Species (Overstory)	Spacing	
Acer rubrum (Red Maple)	30' OC	incl. cultivars on PPL
Betula nigra (River Birch)	30' OC	incl. cultivars on PPL

5 ft, ht. multi = med. decid. tree, 8 ft, ht	. multi = lg. decid. tr	ee
Celtis occidentalis (Hackberry)	30' OC	
Cladastris kentuckea (Yellowwood)	30' OC	
Liquidambar styraciflua (Sweetgum)	30' OC	
Nyssa sylvatica (Blackgum)	30' OC	
Platanus occidentalis (Sycamore)	30' OC	
Quercus alba (White Oak)	30' OC	
Quercus bicolor (Swamp White Oak)	30' OC	
Quercus coccinea (Scarlet Oak)	30' OC	
Quercus palustris (Pin Oak)	30' OC	
Quercus phellos (Willow Oak)	30' OC	
Quercus rubra (Red Oak)	30' OC	
Quercus velutina (Black Oak)	30' OC	
Tilia Americana (American Basswood)	30' OC	
Ornamental Tree Species (Understory)		
Amelanchier canadensis	15' OC	multistemmed
(Canadian Serviceberry)		
Amelanchier laevis (Downy Serviceberry)	15' OC	multi. or tree-form
Cercis canadensis (Eastern Redbud)	15' OC	tree-form
Crataegus virdis 'Winter King'	15' OC	
(Winter King Hawthorn)		
Chionanthus virginicus	15' OC	multistemmed
(White Fringetree)		
Crataegus phaenopyrum	15' OC	
(Washington Hawthorn)		
Hamamalis virginicus (Witchhazel)	10' OC	multistemmed
Magnolia virginiana (Sweetbay Magnolia))15' OC	multistemmed

Evergreen Tree Species (Overstory)

Ilex opaca (American holly)	15' OC	cvrs. per SSCM
Section 920		
Juniperus virginiana (Eastern Red Cedar)	15' OC	
Picea abies (Norway Spruce)	15' OC	full to base
Picea omorika (Serbian Spruce)	15' OC	full to base
Pinus rigida (Pitch Pine)	15' OC	
Pinus taeda (Loblolly Pine)	15' OC	
Pinus strobus (Eastern White Pine)	15' OC	full to base
Pinus virginiana (Virginia Pine)	15' OC	
Thuja occidentalis (American arborvitae)	15' OC	incl. cvrs. on
the PPL,		
		full to base
Shrub Species		
Calycanthus floridus (Eastern Sweetshrub)5' OC	
Clethra alnifolia (Summersweet)	5' OC	
Cornus sericea (Redosier Dogwood)	5' OC	incl. cvrs. on the PPL
Ilex verticillata 'Sparkleberry' (Winterber		5' OC
(Provide 10% male plants of compatible v	,	
Ilex verticillata 'Winter Gold' (Winterber	ry)	5' OC
(Provide 10% male plants of compatible v	varieties)	
Ilex verticillata 'Winter Red' (Winterberry		5' OC
(Provide 10% male plants of compatible v	varieties)	
Myrica pensylvanica (Northern Bayberry)		
Rhododendrum maximum (Great Laurel)		
Rhus aromatica (Fragrant Sumac)	5' OC	
Rhus glabra (Smooth Sumac)	5' OC	
Viburnum acerifolium (Mapleleaf Viburnu		5' OC
viburnum acerijoitum (wapielear viburno	uiii <i>)</i>	5.00
Viburnum dentatum (Southern Arrowwoo	d) 5' OC	incl. cvrs on PPL
Viburnum lentago (Nannyberry)	5' OC	
Viburnum nudum (Witherod Viburnum)	5' OC	incl. cvrs on PPL
Viburnum prunifolium (Blackhaw Viburn	um)	5' OC
<i>Viburnum x pragense</i> (Prague Viburnum)	5' OC	
V r rhytidanhyllaides (Allachery (Allach		

V. x rhytidophylloides 'Allegheny (Allegheny Viburnum) 5' OC

Note: B&B indicates Balled and Burlapped. Cal. indicates Caliper inches. OC indicates On-center Spacing. CG indicates Container-grown. Maximum spacing is for plantings installed adjacent to stock of the same species or spacing category, for example, 2 Quercus coccinea planted next to each other would be planted a maximum of 30 ft. apart, while a Quercus palustris and Nyssa sylvatica planted adjacent to one another would be installed at the same spacing.

The Design-Builder may use species of similar size that are included in the *MDOT SHA Preferred Plants List (PPL)*, where appropriate to the MD Physiographic Region where the site is located.

3.13.05.04 ZONE 4 REFORESTATION PLANTINGS

Primary Aesthetic Interest: Zone 4 shall reforest areas that are suitable for reestablishing mature forests indicative of the Piedmont Region and local Howard County ecosystem within the project right-of-way. The Design-Build Team shall maximize reforestation wherever possible and employ this planting association where indicated on the Conceptual Landscape Plans and in locations where establishment of forest is not precluded by site constraints such as proposed improvements or utility offsets.

Reforestation Plantings shall be designed according to the following:

- 1. Plantings shall consist of random, naturalized arrangements to mimic the ecologic niches of the local area comprised of native trees and shrubs, under planted with native low-maintenance groundcover such as meadow or shrub seeding. A mix of native evergreen and deciduous tree species and shrubs adapted to the appropriate MD physiographic region in which the site is located as indicated on the PPL shall be specified as appropriate to site conditions.
- 2. In highly visible areas (such as roadside edges or cut or fill slopes facing the highway, exit ramps, or secondary roads), the Design-Builder shall use groupings of single-species of trees and shrubs rather than random plantings to increase aesthetic interest. Masses of trees selected to provide added seasonal aesthetic interest with flowers, fruit, foliage color, or bark texture or color are recommended in highly visible areas.
- 3. Turfgrass Establishment of Turfgrass Sod Establishment shall not be used within Reforestation or Revegetation Planting areas. Reforestation areas shall receive Meadow Establishment.
- 4. Reforestation plantings shall be provided at a mitigation ratio of 1:1. In other words, one (1) acre of reforestation plantings is required for one (1) acre of impacts. Reforestation areas species diversity and planting density shall be as follows:

- a. Reforestation stock shall be composed of a mix of at least 11 species of deciduous and evergreens trees and shrubs, with no more than 30% from the same taxonomic family. Individual reforestation areas smaller than 1.0 acre in size may be composed of a mix of at least 7 species provided no more than 30% are from the same taxonomic family.
- b. A ratio of 70% overstory to 30% understory plants is recommended.
- c. Reforestation Plantings shall be composed of planting stock in various sizes installed at the following rates to provide 250 stems per acre:

Small: 100 trees per acre composed of:

- 66 Single leader deciduous trees 5 ft. ht. #5 CG
- 34 Evergreens 3 ft. height B&B, #5 CG

Medium: 75 trees per acre composed of:

- 50 Single leader major deciduous trees 11/4 in. cal. B&B/#10 CG
- 15 Multi-stemmed minor deciduous trees, 5 ft. ht. B&B/#10 CG, or Single leader minor deciduous tree 1¹/₄ in. cal. B&B/#10 CG
- 10 evergreen trees 5 ft. ht. B&B/#10 CG

Large: 32 trees per acre composed of:

- 16 Single leader major deciduous trees 1 ³/₄ in. cal. B&B
- 8 Multi-stemmed minor deciduous trees, 7 ft. ht., B&B or single leader 1 ³/₄ in. cal. B&B
- 8 Evergreens 7 ft. ht. B&B

Shrubs: 150 shrubs per acre (entire reforestation acreage)

- 50 36 in. height B&B/#5 min CG
- 100 24 in. height CG #3 min CG
- Minimum 4 species

(Specify classes of container-grown stock in addition to height according to ANSI Z60.1-.2014 or the latest edition.

5. Representative plant species, and maximum spacings are listed as follows:

ZONE 4 PLANT MATERIAL:			
Botanical Name (Common Name)	Maximum Sp	acing	Notes
Shade Tree Species (Overstory)			
Acer rubrum (Red Maple)	25' OC		
Betula nigra (River Birch)	30' OC	8 ft, ht. multi $=$ lg.	decid.
Tree			

5 ft, ht. multi = med. decid.

tree		
Liquidambar styraciflua (Sweetgum)	25' OC	
Liriodendron tulipifera (Tuliptree)	30' OC	
Nyssa sylvatica (Blackgum)	30' OC	
Platanus occidentalus (Sycamore)	30' OC	
Quercus alba (White Oak)	30' OC	
Quercus bicolor (Swamp White Oak)	30' OC	
Quercus coccinea (Scarlet Oak)	30' OC	
Quercus phellos (Willow Oak)	30' OC	
Quercus rubra (Red Oak)	30' OC	
Quercus velutina (Black Oak)	30' OC	
Tilia Americana (American Linden)	30' OC	
Ulmus americana 'Princeton' (American Elm)		30' OC
Ulmus americana 'Valley Forge' (Ame	rican Elm)	30' OC

Ornamental Tree Species (Understory)

Amelanchier arborea (Downy Serviceberry)	12' OC	tree-form
Amelancier canadensis (Canadian Serviceberry)	12' OC	multistemmed
Amelanchier laevis (Downy Serviceberry)	12' OC	multistemmed
Carpinus caroliniana (American Hornbeam)	12' OC	
Cercis canadensis (Eastern Redbud)	12' OC	tree-form
Chionanthus virginicus (White Fringetree)	12' OC	multistemmed
Crataegus phaenopyrum (Washington Hawthorn) 12' OC	
Ostrya virginiana (Hophornbeam)	12' OC	
Magnolia virginiana (Sweetbay Magnolia)	12' OC	multistemmed
Prunus serotina (Black Cherry)	12' OC	

Evergreen Tree Species

<i>Ilex opaca</i> (American holly)	15' OC
Juniperus virginiana (Eastern Red Cedar)	20' OC
Pinus rigida (Pitch Pine)	20' OC
Pinus taeda (Loblolly Pine)	20' OC
Pinus strobus (Eastern White Pine)	30' OC
Pinus virginiana (Virginia Pine)	20' OC
Thuja occidentalis (American arborvitae)	15' OC

Shrub Species

Calycanthus floridus (Eastern Sweetshrub)5'	OC
Clethra alnifolia (Summersweet)	5'	OC

SPECIAL PROVISIONS

SCOPE OF WORK FOR DESIGN-BUILD	SCOPE O	F WORK	FOR DESI	GN-BUILD
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Cornus amomum (Silky Dogwood)	5' OC	
Cornus racemose (Gray Dogwood)	5' OC	
Cornus sericea (Redosier Dogwood)	5' OC	
Hammemelis virginiana (witchhazel)	5' OC	
Ilex glabra (Inkberry)	5' OC	
Ilex verticillata 'Winter Red' (Winterberr	y)5' OC	
(Provide 10% male plants of comp	patible varieties)	
Lindera bezoin (Spicebush)	5' OC	
Rhus aromatica (Fragrant Sumac)	5' OC	
Rhus glabra (Smooth Sumac)	5' OC	
Sassafras albidum (Sassafras)	5' OC	shrub-sized stock
Viburnum acerifolium (Mapleleaf Viburnum)	5' OC	
Viburnum dentatum	5' OC	
(Southern Arrowwood Viburnum)	5 00	
Viburnum lentago (Nannyberry)	5' OC	
Viburnum nudum (Witherod Viburnum)	5' OC	
Viburnum prunifolium (Blackhaw Viburn	um)	5' OC

Note: B&B indicates Balled and Burlapped. Cal. indicates Caliper inches. OC indicates On-center Spacing. CG indicates Container-grown. Maximum spacing is for plantings installed adjacent to stock of the same species or spacing category, for example, 2 Quercus coccinea planted next to each other would be planted a maximum of 30 ft. apart, while a Quercus palustris and Nyssa sylvatica planted adjacent to one another would be installed at the same spacing.

The Design-Builder may use species of similar size that are included in the *MDOT* SHA Preferred Plants List (PPL), where appropriate to the MD Physiographic Region where the site is located.

3.13.05.05 ZONE 5 ROADSIDE TREE LAW MITIGATION PLANTINGS

Primary Aesthetic Intent: Zone 5 shall revegetate areas that are suitable for tree plantings within the project right-of-way but will not be credited towards reforestation requirements under the MD Reforestation Law. The Design-Build Team shall employ this planting association to mitigate impacts permitted under the Roadside Tree Law. Trees may be installed to replace existing trees removed for construction or in other locations where tree plantings is feasible to provide aesthetic benefit, revegetation, shading of SWM facilities, re-establishment of

wetland and waterway buffers in accordance with the LDG.

- 1. Refer to the Zone 4 Reforestation Plantings list for species for use in Zone 5.
- 2. Roadside Tree Law Mitigation Plantings are to be installed at the following minimum sizes or larger based on type of tree:
 - a. Shade tree (overstory): 1-1/4 in. cal (single-stemmed) or 7ft ht. (multistemmed, B&B/#10 CG
 - b. Ornamental tree (understory): 1-1/4 in. cal. (single-stemmed) or 5 ft. ht. multistemmed, B&B/#10 CG
 - c. Evergreen tree 5 ft. ht. B&B/#15 CG

3.13.05.06 ZONE 6 AESTHETIC LANDSCAPE PLANTINGS

Primary Aesthetic Intent: Zone 6 shall provide replacement plantings in highvisibility locations, such as gateway interchanges, where existing aesthetic landscape plantings are impacted by proposed work. Existing aesthetic landscape plantings may be identified in the field by massings or individual shade, evergreen, or ornamental trees, shrub beds, and perennial plantings that are typically maintained as landscape plantings rather than naturalized areas.

The Design-Build Team shall employ this plant association in accordance with the following criteria:

- 1. Where impacts are limited to 1/3 or less of the area of an existing planting bed, or single species shrub and/or tree massing, replace impacted plantings in kind. In-kind plantings are also to be used to tie replacement plantings into adjacent plantings to remain and maintain the landscape character of existing landscaping in a highway corridor, gateway interchange, or byway.
- 2. In locations where significant portions (more than 1/3 of the area) of existing landscape plantings or individual landscape beds are impacted by construction, the design-builder shall design and provide replacements that tie into adjacent or nearby landscaping. Replace impacted perennial beds with shrubs where feasible and appropriate to reduce long-term maintenance needs.
- 3. Where space allows, provide large naturalized masses composed of singlespecies groupings of trees and shrubs, selecting species on the MDOT SHA Preferred Plant List that are established on the site or are otherwise appropriate to the site conditions and constraints.
- 4. Masses of shrubs and large ornamental grasses are to be installed in mulched landscape beds, with spacing reduced to minimize weed growth. Beds shall be designed for plantings to cover the extent of the beds and to out-compete weeds and minimize future maintenance. Trees within 6 ft. of mulched beds are to be included in beds.

- 5. Use tree and shrub species that provide added aesthetic interest with flowers, fruit, fall color, bark texture or color.
- 6. Installation of container grown or B&B trees and shrubs or shrub seeding shall occur outside of highway clear zones or locations where woody plants are removed during vegetation management operations. Refer to Zone 1 Turfgrass and Zone 2 Naturalized Areas for locations where woody plants are not permitted and regular mowing will not be required or feasible.
- 7. When impacts to existing landscaping are significant and/or in-kind replacement is not feasible, select tree and shrub species from the plant lists below or use comparable stock sizes of species selected from the PPL. On slopes steeper than 3:1, single-stemmed deciduous trees may be reduced to 1.25 in. caliper stock, B&B/#15 CG, provided (3) 1.25 in. caliper trees are provided in lieu of (2) 2.0 in. cal. trees. Maximum spacing of trees may be increased to match existing landscaping to remain.
- 8. Representative plant species, and maximum spacings are listed as follows:

Botanical Name (Common Name)	Maximum	Minimum Size
	Spacing	
Acer rubrum & cvrs. (Red Maple)	25' OC	2 in. cal, B&B
Betula nigra (River Birch)	25' OC	8 ft. ht. 3-5 stems
Cladastris kentukea (Yellowwood)	30' OC	2 in. cal, B&B
Liquidambar styraciflua (Sweetgum)	25' OC	2 in. cal, B&B
Liriodendron tulipifera (Tuliptree)	30' OC	2 in. cal, B&B
Nyssa sylvatica (Blackgum)	30' OC	2 in. cal, B&B/#25 CG
Platanus occidentalis (Sycamore)	30' OC	2 in. cal, B&B
Quercus alba (White Oak)	30' OC	2 in. cal, B&B
Quercus bicolor (Swamp White Oak)	30' OC	2 in. cal, B&B/#25 CG
Quercus coccinea (Scarlet Oak)	30' OC	2 in. cal, B&B
Quercus phellos (Willow Oak)	30' OC	2 in. cal, B&B/#25 CG
Quercus rubra (Red Oak)	30' OC	2 in. cal, B&B/#25 CG
Quercus velutina (Black Oak)	30' OC	2 in. cal, B&B/#25 CG
Tilia Americana (American Linden)	30' OC	2 in. cal, B&B
Ulmus americana 'Princeton'	30' OC	2 in. cal, B&B
(Princeton American Elm)		
Ulmus americana 'Valley Forge'	30' OC	2 in. cal, B&B
(Valley Forge American Elm)		
Ornamental Tree Species (Understory)		
Amelanchier canadensis	15' OC	6' Ht., B&B/#10 CG

ZONE 6 PLANT MATERIAL:

(Canadian Serviceberry)		
Amelanchier laevis & cvrs.	15' OC	6 ft. Ht. multi, B&B/CG
(Downy Serviceberry)		
Cercis canadensis (Eastern Redbud)	15' OC	2 in. Cal., B&B
Chionanthus virginicus	15' OC	6 ft. Ht. multi,
B&B/#10 CG		
(White Fringetree)		
Crataegus viridis 'Winter King'	15' OC	2 in. Cal., B&B
(Winter King Hawthorn)		
Magnolia virginiana (Sweetbay)	15' OC	6 ft. Ht. multi,
B&B/#10 CG		
Evergreen Tree Species		
Ilex x Nellie R. Stevens	15' OC	5' Ht., B&B
(Nelly R. Stevens Holly)		
Ilex opaca approved cultivars	15' OC	5' Ht., B&B
(American holly)		
Juniperus virginiana & cvrs.	15' OC	5' Ht., B&B/#20 CG
(Eastern Red Cedar)		
Pinus taeda (Loblolly Pine)	25' OC	5' Ht., B&B
Pinus strobus (Eastern White Pine)	30' OC	5' Ht., B&B
Thuja occidentalis cvrs.	15' OC	5' Ht., B&B/#20 CG
(American arborvitae) Refer to M	DOT SHAPPL	for approved cultivars
Shrub Species		
Medium to Large Size		

Medium to Large Size		
Aronia arbutifolia 'Brilliantissima'	4' OC	30 in. Ht., #5 CG
(Brilliant Red Chokeberry)		
Aronia melanocarpa & Cvrs	4' OC	30 in. Ht., #5 CG
(Black Chokeberry)		
Calycanthus floridus	5' OC	30 in. Ht., #5 CG
(Eastern Sweetshrub)		
Cornus sericea & cvrs.	5' OC	36 in. Ht., B&B/#5 CG
(Redosier Dogwood-refer to MDO7	<i>SHA PPL</i> for app	proved cultivars)
Ilex verticillata 'Sparkleberry'	5' OC	30 in. Ht., B&B/#3 CG
(Sparkleberry Winterberry) (Provid	le 10% male plan	ts of compatible varieties)
Ilex verticillata 'Winter Red'	5' OC	30 in. Ht., B&B/#5 CG
(Winter Red Winterberry)		
(Provide 10% male plants of co	ompatible varietie	es)
Myrica pensylvanica (Bayberry)	5' OC	36 in. Ht., B&B/#5 CG

Rhus aromatica (Fragrant Sumac)	5' OC	24 in. Ht., #3 CG
Rhus glabra (Smooth Sumac)	5' OC	24 in. Ht., #3 CG
Viburnum acerifolium	5' OC	36 in. Ht., B&B/#5 CG
(Mapleleaf Viburnum)		
Viburnum dentatum	5' OC	36 in. Ht., B&B/#5 CG
(Southern Arrowwood Viburnum)		
Viburnum lentago (Nannyberry)	5' OC	36 in. Ht., B&B/#5 CG
Viburnum nudum (Witherod Viburnum)	4' OC	30 in. Ht., B&B/#5 CG
Viburnum prunifolium	5' OC	36 in. Ht., B&B/#5 CG
(Blackhaw Viburnum)		
Small to Medium Size		
Ilex verticillata 'Maryland Beauty'		
(MD Beauty Winterberry)	3' OC	24" Ht., #5 CG
(Provide 10% male plants of compatib	le varieties)	
Itea virginica 'Henry's Garnet'	3' OC	24" Ht., #5 CG

Rhus aromatica 'Gro-Low'4' OC18" Spd., #3 CG(Grow Low Fragrant Sumac)

Note: B&B indicates Balled and Burlapped. Cal. indicates Caliper inches. OC indicates On-center Spacing. CG indicates Container-grown.

The Design-Builder may use species of similar size that are included in the *MDOT SHA Preferred Plants List (PPL)*, where appropriate to the MD Physiographic Region where the site is located.

3.13.05.07 ZONE 7 OUTFALL RESTORATION

(Henry's Garnet Sweetspire)

Primary Aesthetic Interest: Zone 7 shall revegetate the roadside slopes, streambanks, riparian areas, and floodplain areas to restore areas impacted by outfall erosion and construction of improvements. The Design-Build Team shall provide plantings and establish permanent vegetation to increase erosion resistance, improve surface stability of slopes, restore stream and riparian buffers, and provide improved aquatic habitat.

Design Zone 7 Outfall Restoration according to the following:

1. Plantings shall consist of naturalized arrangements to mimic the ecological niches of the stream corridor comprised of native trees, shrubs, and grasses, underplanted with native low-maintenance groundcover such as meadow or shrub seeding. A mix of native deciduous tree and shrub species native to

physiographic region of Maryland where the site is located shall be specified as appropriate to site conditions.

- 2. Tree and shrub species shall be selected to be hydrologically appropriate to the conditions within the zone.
- 3. Outfall Restoration planting areas of at least 50 ft. wide and 0.5 acre of planting not contiguous with proposed reforestation or preserved forest areas or planting of at least 0.25 acres adjacent to proposed reforestation or preserved forest areas may be credited toward reforestation mitigation requirements for the Contract, with the approval of DNR-FS.
- 4. Turfgrass Establishment or Turfgrass Sod Establishment shall be used within Outfall Restoration areas only in locations where regular mowing by the Administration or adjacent property owners will occur. Outfall Restoration areas shall receive Shrub Seeding, Meadow Establishment, or other native seeding mixes submitted for approval. Approval of modifications shall be at the sole discretion of the Administration. Seeding shall be selected based on hydrologic conditions. Type D Soil Stabilization Matting (Type D SSM) is to be used with Meadow Establishment or Shrub Seeding on slopes steeper than 4:1 or in locations prone to erosion from concentrated flow to minimize erosion and establish native herbaceous vegetation.
- 5. Where outfall restoration impacts stream and riparian areas, the Design-Builder shall stabilize and restore the areas as required by MDE, DNR, and the Army Corps of Engineers. When approved by permitting agencies, live stakes shall be installed along the slope of the bank, from just below top of bank to just above the normal base flow, in a 3 ft. triangular spacing pattern. A minimum of 3 species shall be used.
- 6. Tree and shrub plantings shall be provided at the following minimum densities:

Overstory and Understory Tree Species:250 trees per acre30% medium plant stock from Zone 4 Overstory Shade Trees30% small stock from Zone 4 Overstory shade Trees10% medium plant stock from Zone 4 Evergreen Trees30% medium plant from Zone 4 Understory Ornamental Trees

Shrubs: 200 shrubs per acre 75% 24 in. ht or 30 in. ht. #3 CG 25% 3 ft. ht, B&B or #5 CG

7. Representative plant species, and maximum spacings are listed as follows:

Zone 7 Plant Material:

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BOTANICAL NAME	COMMON NAME	MAXIMUM SPACING	MINIMUM SIZE
Major Deciduous Trees	•	-	
Select species from the Zon	e 4 Plant Material List or na	ative species from	n the PPL.
Minor Deciduous Trees			
Select species from the Zon	e 4 Plant Material List or na	ative species from	the PPL.
Evergreen Trees			
Select species from the Zon	e 4 Plant Material List or na	ative species from	the PPL.
Shrubs			
Select appropriate species fit the following:	rom the Zone 4 Plant Mater	ial List, native sp	ecies from the <i>PPL</i> , and
Alnus serrulata	Hazel Alder	5' O.C.	24 in. ht., #3 CG
Cephalanthus occidentalis	Common buttonbush	5' O.C.	24 in. ht., #3 CG
Cornus ammomum	Silky Dogwood	5' O.C.	24 in. ht., #3 CG
Cornus racemosa	Gray Dogwood	5' O.C.	24 in. ht., #3 CG
Lindera benzoin	Spicebush	5' O.C.	24. in. ht., #3 CG
Physocarpus opulifolius	Ninebark	5' O.C.	24 in. ht., #3 CG
Sambucus nigra ssp. canadensis	American black elderberry	5' O.C.	24 in. ht., #3 CG
Live Stake Species	1		
Cornus amomum	Silky Dogwood	3' O.C.	3' length
Cornus sericea	Red Osier Dogwood	3' O.C.	3' length
Cephalanthus occidentalis	Buttonbush	3' O.C.	3' length
Salix nigra	Black Willow	3' O.C.	3' length
Salix discolor	Pussy Willow	3' O.C.	3' length
Viburnum dentatum	Arrowwood Viburnum	3' O.C.	3' length
Viburnum lentago	Nannyberry	3' O.C.	3' length

3.13.05.08 ZONE 8 SWM FACILITY PLANTINGS

Primary Aesthetic Intent: Zone 8 shall provide temporary and permanent vegetation for stormwater management facilities and adjacent areas. Design, construct, and establish SWM Facility Plantings to provide permanent stabilization and landscaping as required by the SWM/ESC Approval Authority and as per the following. Landscaping in Zone 8 shall meet the requirements as set forth in MDOT SHA *Stormwater Site Development Criteria*, latest edition with the following modifications:

3.13.05.08.01 Establishment of Vegetative Stabilization in all SWM facilities

1. The Design-Builder shall design, construct, and establish 95% vegetation coverage in areas draining into SWM Facilities prior to construction of facilities as required by SWM/ESC Approval Authority. Permanent vegetation such as

Turfgrass, Meadow, or other native herbaceous species may be specified to stabilize areas surrounding SWM Facility prior to facility construction. Temporary seeding may be approved in conformance with SP 704 provided 95% coverage is maintained throughout the duration of SWM construction. Tilling in areas of temporary seeding for the establishment of permanent vegetation is not permitted unless an approved erosion and sediment control device is in place.

- 2. The Design-Builder shall establish and maintain 95% permanent vegetation coverage in all areas of topsoil or bioretention soil mix within SWM facilities, except in areas stabilized with wood mulch, stone mulch, or riprap or where standing water is intended as in wet ponds and wet swales. Vegetative coverage requirements may be reduced in areas that remain permanently inundated.
- 3. With the exception of grass swales, the Design-Builder shall minimize the use of Turfgrass Establishment or Turfgrass Sod Establishment within Stormwater Management Facilities to locations where regular mowing will occur, on stabilized maintenance access roads, and where required by SWM/ESC Approval Authority.
- 4. In locations where turfgrass or shredded hardwood bark mulch is not required, the Design-Build Landscape Architect shall specify appropriate native seed mixes such as SHA Meadow Establishment. Native seed mixes are also to be used in areas planted with plugs, container grown herbaceous plants, and other landscaping. Mixes of other native species appropriate to soil, hydrologic conditions, or growing season shall be submitted in writing for approval to the Administration. Approval of modifications shall be at the sole discretion of the Administration.
- 5. Specify Type A Soil Stabilization Matting (SSM) with Turfgrass Establishment or Type D SSM with Meadow Establishment in SWM Facilities where other types of mulch (straw, wood cellulose, hardwood bark mulch) are not permitted per the MDOT SHA *Stormwater Site Development Criteria* or where mulch will not remain in place due to temporary and permanent water elevations in Stormwater Management Facilities. Use of other types of SSM may be required by the Highway Hydraulics Division, although Type D SSM is to be used with all broadleaf meadow species.

3.13.05.08.02 Planting Requirements by SWM Facility Types

The Design-Builder shall design, build, and maintain stormwater management facilities as required by MDE and the Office of Highway Development. Design and criteria for different facility types will vary as per the following criteria. Facility types not listed below shall follow the guidance of the *MDOT SHA Stormwater Site Development* for landscape requirements.

- 1. Grass Swale: The permanent vegetative treatment for grass swales is Turfgrass Sod Establishment or Turfgrass Establishment with Soil Stabilization Matting (SSM).
- 2. Bioswale: The permanent vegetative treatment for bioswales is native meadow, which may be Upland or Lowland Meadow Establishment, or Bioretention Meadow Establishment, with Type D Soil Stabilization Matting (SSM).
 - a. The Design-Builder shall establish and maintain 95% native vegetation coverage throughout the limits of the swale until approval of the as-built plans for SWM. Additional plantings of container-grown, deep-rooted perennials, typically plugs, may be used to expedite establishment of native vegetation but are only required in bioswales on check dams.
 - b. Turfgrass Establishment and SSM or Turfgrass Sod Establishment may be approved for bioswales in locations where tall vegetation would block necessary sight lines. Where approved, 95% coverage will be required for turfgrass areas throughout the swale limits.
 - c. Container-grown plantings of deep-rooted perennials or grasses are to be used on check dams to provide additional reinforcement. Minimum spacing of plantings on check dams will vary depending on container class as follows:

Plug (2 in. dia. by 5 in. depth): 12 in. on center spacing#SP4:18 in. on center spacing#1:24 in. on center spacing

d. Species to be used on check dams are as follows:

BOTANICAL NAME	COMMON NAME
Andropogon gerardii	Big Bluestem
Elymus virginicus	Virginia Wild Rye
Panicum virgatum	Switchgrass
Panicum amarum 'Dewey Blue'	Dewey Blue
	Beachgrass
Schizachyrium scoparium	Little Bluestem
Sorghastrum nutans	Indian Grass

- 3. Dry Pond: The permanent vegetative treatment for dry ponds is to be Turfgrass or native meadow.
 - a. Native meadows may be SHA Upland, Lowland, or Wet Meadow Establishment or another custom native seed mix approved for the project. Where SSM is recommended in the Landscape section of the MDOT SHA *Highway Construction Cost Estimating Manual*, provide SSM suited for establishment of the specified permanent vegetation.

- b. Areas of dry ponds located within wetlands or waters of the US buffers are to be permanently vegetated with native meadow with SSM. Locations with base flow or standing water may require plantings of containerized stock to provide vegetative stabilization if required by the Plan Review Division, or State or Federal permitting agencies.
- c. When possible, side slopes of dry pond shall be used as reforestation, revegetation and/or screen plantings, except where woody plants are restricted as per MD Pond Code 378, where plantings are prohibited by the Highway Hydraulics Division, or where otherwise prohibited by the MDOT SHA *Landscape Design Guide*.
- 4. Sand Filter: In lieu of vegetation, stone is to be used to stabilize the bottom of the sand filter.
 - a. Stone is to be 3-4 in. depth crusher-run No. 2 aggregate, washed free of fines, river jack stone, or other stone approved by HHD or SWM/ESC Approval Authority. Stone that will be visible upon completion of facility construction from roadways, residences, or commercial properties is to be of natural colors, such as dark gray, blue-gray, reddish-brown, or similar

3.13.05.08.03 Planting Requirements for Microbioretention

The Design-Builder shall design Microbioretention facilities as required by the Highway Hydraulics Division. Unlike the other types of facilities listed, areas of Bioretention Soil Mix (BSM) in microbioretention facilities are stabilized with 3 inch depth shredded hardwood bark mulch and then planted with native plants. As such, the vegetative stabilization and planting requirements vary from other types of SWM facilities in this project as follows:

1. Provide perimeter tree and shrub plantings to shade, screen, and improve the aesthetics of microbioretention facilities. Use the following table to calculate required minimum perimeter plantings for each facility:

Plant Type	Size/Root	Max.	Quant. per 100
		Spacing	LF of perimeter
Major Deciduous Tree	2 in. cal.	N/A	1
	/B&B		
Minor Deciduous Tree	1.75 in.	N/A	Provide 2 of one
(single leader)	cal/B&B		of the following
Minor Deciduous Tree	6 ft. ht./B&B	N/A	
(multistemmed)	or #7 CG		
Evergreen Tree	6 ft. ht./B&B	N/A	
Shrub	30 in. ht. #5	5 ft. OC	10
	CG		
Perennial	#1 CG	30 in OC	30

*Note: Where site constraints do not permit use of major deciduous trees, substitute 2 minor deciduous trees or 5 shrubs.

- 2. Establish permanent vegetation on side slopes to obtain 95% coverage. Turfgrass Establishment with Type A SSM or Turfgrass Sod Establishment shall be used on side slopes above the level of water volume retained during rain events. Native meadow establishment, using MDOT SHA Upland Meadow, Lowland Meadow, Bioretention Meadow or other approved native seed, with Type D SSM may also be used on side slopes, provided 95% coverage is obtained. Perimeter plantings shall be installed on side slopes where feasible.
- 3. Where bioretention soil mix is present, the design-builder will be required to design and establish native herbaceous and woody plants in 3 inch depth shredded hardwood bark mulch. Seeding will not be used to establish vegetation in areas containing shredded hardwood bark mulch. The density of plantings will vary based on the size and type of stock at installation. Provide plants from at least 3 different genera.

Plant Type	Size/Root	Max. Spacing	Quant. per 100 SF of BSM
			surface area
Shrub	30 in. ht. #5 CG	5 ft. OC	2
Perennial	#1 CG	30 in OC	16
Perennial	#SP4 CG	24 in OC	25
Perennial	Plug (2 in. diam. by	18 in. OC	50
	5 in. depth		

Zone 8: Microbioretention Facility Herbaceous Plant Spacing

4. Representative plant species, and maximum spacings are listed as follows:

Zone 8: Microbioretention Facility Plantings

BOTANICAL NAME	COMMON NAME	TYPICAL SPACING	MINIMUM SIZE
Major Deciduous Trees			
Acer rubrum 'Autumn Flame'	Autumn Flame Maple	30' OC	2'' Cal. B&B
Acer rubrum 'Brandywine'	Brandywine Maple	30' OC	2'' Cal. B&B
Betula nigra	River Birch	20' OC	8' Ht. Multi-stem, 3-5 stems B&B/#15 CG
Celtis occidentalis	Hackberry	30' OC	2'' Cal. B&B
Liquidambar styraciflua'Happdell'	'Happidaze' Sweetgum	25' OC	2'' Cal. B&B
Liquidambar styraciflua 'Rotundiloba''	Rotundiloba Sweetgum		2'' Cal. B&B
Nyssa sylvatica	Black Gum	30' OC	2'' Cal. B&B/#25 CG

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O	Construct Will its Oals	202 00	222 C-1 D 8 D
Quercus bicolor	Swamp White Oak	30' OC	2'' Cal. B&B
Quercus coccinea	Scarlet Oak	30' OC	2'' Cal. B&B
Quercus palustris	Pin Oak	30' OC	2''Cal. B&B
Quercus phellos	Willow Oak	30' OC	2''Cal. B&B/#25 CG
Tilia americana	Basswood	30' OC	2''Cal. B&B
Minor Deciduous Trees			
Select species from the Zor	ne 4 Plant Material List.		
Evergreen Trees			
Ilex opaca	American Holly	15' OC	5' Ht. B&B (refer to SSCM Section 920)
Juniperus virginia	Eastern Red Cedar	15' OC	5' Ht. B&B/#20 CG
Magnolia virginiana	Sweetbay Magnolia	15' OC	5' Ht. B&B/#15 CG
Pinus rigida	Pitch Pine	20' OC	5' Ht. B&B
Pinus taeda	Loblolly Pine	20' OC	5' Ht. B&B
Pinus virginiana	Virginia Pine	20' OC	5' Ht. B&B
	8		
Shrubs			
Select species from the Zor	ne 4 Plant Material List a	nd the followir	1g:
Cephalanthus	Common buttonbush	30 in. ht.	#5 CG
occidentalis			
Cornus ammomum	Silky Dogwood	30 in. ht.	#5 CG
Cornus racemosa	Gray Dogwood	30 in. ht.	#5 CG
Physocarpus opulifolius	Ninebark	30 in. ht.	#5 CG
Sambucus nigra ssp.	American black	30 in. ht.	#5 CG
canadensis	elderberry		
Container Grown Herba	reous Species		
'Cape' Ammoph			
breviligulata Fernald	beachgrass	Spacing as	s Sizes as noted in
Amsonia tabernaemontana		noted in	
Andropogon virginicus	Broomsedge	Microbiore	
Asclepias incarnata	Swamp Milkweed	ention	Plant Spacing Table
Asclepias tuberosa	Butterfly Weed	Facility	1 0
Aster novae-angliae	New England Aster	Herbaceous	3
Aster novi-belgii	New York Aster	Plant	
Carex retrorsa	Retrose Sedge	Spacing	
Eragrostis spectabilis	Purple Lovegrass	-	
Eupatorium dubium	Joe-pye Weed	-	
Helianthus angustifolius	Swamp Sunflower	-	
Heliopsis helianthoides	False Sunflower	-	
Hibiscus moscheutos	Swamp Rose	-	
IIIOISCUS HIOSCHCHIOS	Mallow		
Iris versicolor	Blue Flag	-	
Iris virginica	Virginia Blue Flag	-	
		1	

Juncus effusus	Soft Rush		
Leymus arenarius 'Blue Dune'	Blue Lyme Grass		
Liatris spicata	Blazing Star		
Lupinus perennis	Sundial lupine		
Oenothera fruticosa	Sundrops		
Panicum amarum Elliott	Bitter panicgrass		
Panicum virgatum (species	Switchgrass		
and approved cultivars)	(species and		
	approved cvs)		
Rudbeckia Triloba	Black-eyed Susan		
Schoenoplectus pungens var.	Common Three-		
pungens (Scirpus pungens)	Square		
Scirpus cyperinus	Woolgrass		
Schoenoplectus validus	Soft-Stemmed		
(Scirpus validus)	Bulrush		
Solidago sempervirens	Seaside goldenrod		
Sparganium americanum	Bur-reed		
Spartina pectinata	Freshwater		
	Cordgrass		
Symphyotrichum laeve var.	Smooth Blue Aster		
laeve			
Thalictrum pubescens	King of the		
	Meadow		
NOTE:			
	diameter, and 5" depth ur		
	alled and Burlapped. CG i	ndicates Contai	ner Grown. OC indicates
On Center Spacing.			

3.13.05.08.04 Planting Requirements for Submerged Gravel Wetlands

The Design-Builder shall design and construct plantings in Submerged Gravel Wetlands (SGW) as required by the Highway Hydraulics Division and SWM/ESC Approval Authority and in accordance with the following.

1. Provide perimeter tree and shrub plantings to shade, screen, and improve the aesthetics of SGW facilities. Use the following table to calculate the required minimum perimeter plantings for each facility:

Plant Type	Size/Root	Max.	Quant. per 100
		Spacing	LF of perimeter
Major Deciduous Tree	2 in. cal. /B&B	N/A	1
Minor Deciduous Tree	1.75 in. cal/B&B	N/A	Provide 2 of one of
(single leader)			the following
Minor Deciduous Tree	6 ft. ht./B&B or #7	N/A	
(multistemmed)	CG		
Evergreen Tree	6 ft. ht./B&B	N/A	

Shrub	30 in. ht. #5 CG	5 ft. OC	10
trees as indicate		1	of major deciduous r deciduous trees, 2

- 2. Areas of wetland soils in SGW, typically located on the floor of the facility, are to be stabilized with native seeding and Type D Soil Stabilization Matting (Type D SSM) and planted with container-grown native plants. Specify and establish native seeding and plantings as necessary to establish permanent vegetation with obtain 95% coverage.
 - a. Woody plants are not to be utilized within the limits of wetland planting soils.
 - b. Native seeding may consist of Bioretention Meadow Establishment, Wet Meadow Establishment, Lowland Meadow Establishment, Upland Meadow Establishment, or a custom native mix submitted in writing and approved by the Administration.
 - c. Utilize container-grown herbaceous plant species listed in TC Section 3.13.05.08.03 Planting Requirements for Microbioretention, native plants listed in the PPL for SWM, or other species and sizes as approved by the Administration. The density of plantings will vary based on the size and type of stock at installation. Provide plants from at least 3 different genera.

Plant Type	Size/Root	Max. Spacing	Quant. per 100 SF of surface area
Perennial	#1 CG	30 in OC	16
Perennial	#SP4 CG	24 in OC	25
Perennial	Plug (2 in. diam. by 5 in. depth)	18 in. OC	50

3.13.05 Invasive Species Management.

Landscape and mitigation plantings cannot be successfully established without management of invasive species and woody and herbaceous weeds. Invasive species and prohibited weeds list below shall be treated and removed within the limits of disturbance.

Invasive Species Management Invasive and Prohibited Species to be Controlled and Removed					
Acer platanoides	Hedera helix	Perilla frutescens			
Norway Maple	English Ivy	Perilla			
Ailanthus altissima	Heracleum mantegazzianum	Phalaris arundinacea			
Tree of Heaven	Giant Hogweed	Canary Reed Grass ²			

Albizia julibrissin	Humulus japonicas	Phragmites australis
Mimosa	Japanese Hops	Phragmites
Alliaria petiolata	Hemerocallis fulva	Polygonum cuspidatum
Garlic Mustard	Daylily	Japanese Knotweed
Allium vineale	Ligustrum obtusifolium	Polygonum perfoliatum
Wild Garlic	Border Privet	Mile-a-minute ²
Alecia quanata	Ligustrum sinense	Pueraria montana var. lobata
Chocolate Vine	Chinese Privet	Kudzu
Ampelopsis brevipedunculata	Ligustrum japonicum	Pyrus calleryana
Porcelain Berry	Japanese Privet	Callery Pear
Artemisia vulgaris	Ligustrum vulgare	Ranunculus ficaria
Mugwort	European Privet	Lesser Celandine
Bambusa vulgaris, Phyllostachys	Lonicera japonica	Rosa multiflora
aurea, Pseudosasa japonica and other	Japanese Honeysuckle ²	Multiflora Rose
Bamboo	1 2	
Berberis thunbergii	Lonicera maackii	Sorghum biclor
Japanese Barberry	Amur Honeysuckle	Shattercane
Carduus sp. & Cirsium sp.	Lonicera morrowi	Sorghum halepense
Thistles (Canada, Plumeless, Bull and	Morrow's Honeysuckle	Johnsongrass
Musk)		
Celastrus orbiculatus	Lonicera tatarica	Toxicodendron radicans
Oriental Bittersweet	Tartarian Honeysuckle	Poison Ivy ²
Centaurea maculosa	Lythrum salicaria	Ulmus parvifolia
Spotted Knapweed	Purple Loosestrife	Chinese Elm or (Lacebark Elm)
Dipsacus fullonum	Microstegium vimineum	Ulmus pumila
Common Teasel ²	Japanese Stiltgrass	Siberian Elm
Elaeagnus umbellata	Miscanthus sinensis	Vitus sp.
Autumn Olive	Eulalia	Grape Vine
Euonymus alatus	Oplismenus hirtellus ssp.	Wisteria floribunda
Burning bush	Undulatifolius	Japanese Wisteria
č	Wavyleaf Basketgrass	Wisteria sinensis – Chinese Wisteria

Note: Species in wetlands, 25' nontidal wetland buffers, and waters of the US must receive appropriate state/federal authorization prior to treatment and control.

- 1. The Design-Builder shall develop a treatment program and schedule detailing proposed methods for control and removal of invasive species/prohibited weeds which shall include the following:
 - a. Schedule of invasive vegetation management operations, including mechanical and chemical methods of control for initial, intermediate, and follow-up treatments (for re-growth);
 - b. List of tools and pesticides to be used;
 - c. Copies of required licenses for work as required by applicable State and Federal Law;
 - d. Maps in CADD or GIS, graphically indicating areas of treatment based on prevailing invasive species present.

- 2. The Design-Builder shall conduct invasive species management operations as appropriate before, during, and after installation of proposed landscape treatments. The Design-Builder's schedule shall provide sufficient lead time between herbicide application and plant installation or seeding. The Design-Builder shall replace all landscape plantings damaged by herbicide application.
- 3. Herbicides shall be applied according to MDA requirements and applicable State and Federal Laws. Appropriate licenses shall be required.
- 4. The Design-Builder shall continue to treat and remove invasive species listed above until acceptance of the project for maintenance by the Administration.
- 5. Installed landscape plantings or existing plantings to be retained that are damaged by herbicide application shall be replaced at no cost to the Administration. Prune portions of trees and shrubs or remove and replace unacceptable plants per *SSCM Section 710* damaged by invasive species management operations at no cost to the Administration.

3.13.07 Other Requirements

3.13.07.01 Contour Grading

The Design-Builder shall perform contour grading throughout the limits of the project Right of Way. Contour grading for both cut and fill conditions shall be performed so that the resultant landforms are natural in appearance, blend well with the surrounding landscape and built features, facilitate positive drainage, and minimize opportunities for erosion. Grading shall be performed to maintain desirable existing vegetation and accommodate project landscape plantings. Changes in slopes shall be rounded to appear smooth and natural. Slopes to be routinely mowed shall be no steeper than 4:1.

3.13.07.02 SWM Fence

SWM fencing shall be constructed at Structural SWM facilities where safety grading is not feasible and where necessary to replace existing fencing in poor condition or impacted by construction. SWM fencing shall consist of black vinyl coated chain link and shall be installed according to the Administration's Pond Fencing Guidelines with a height of 3.5 feet and be placed so as to be visually unobtrusive. Chain link fencing used at stormwater management facilities shall have a top rail run continuously between terminal posts with chain link tied to the top rail at two-foot maximum spacing. The top rails shall conform to the brace rail and brace rail attachment specifications. No brace rail is required when top rails are used. A tension wire shall be run continuously between terminal posts near the bottom of the fabric and be attached to the fabric with hog ring fasteners at eighteen-inch intervals. A twelve-foot wide double gate shall be constructed at each SWM

facility requiring fencing. Fencing at Non-Structural (ESD) SWM facilities shall not be provided.

3.13.07.03 SWM Naturalized Grading and Forms

The Design-Builder shall perform naturalized grading and layout design for the Structural SWM facilities. Contour grading for both cut and fill conditions shall be performed so that the resultant landforms are natural in appearance, blend well with the surrounding landscape and built features, facilitate positive drainage, and minimize opportunities for erosion. Grading shall be performed to maintain desirable existing vegetation and accommodate project landscape plantings. Changes in slopes shall be rounded to appear smooth and natural. Slopes to be routinely mowed shall be no steeper than 4:1. Forms or shapes of the facilities shall replicate those forms found in nature of the local area. Rectangles, squares, and parallelograms are not natural forms. See Section 11.3.3.4 for grading and layout design requirements for Non-Structural (ESD) facilities.

3.13.08 Landscape Submittals

3.13.08.01 Forest Impact Plans

The Forest Impact plans shall be prepared and formatted at a minimum scale of 1" = 100', and shall indicate forest impacts based on the most current limits of disturbance. Forest Impact Plans shall indicate the quantities of impacts on each plan sheet for each individual area identified, and shall include a summary of quantity totals for the entire package of drawings. Forested wetlands shall not be included in the Forest Impact as wetland impacts are quantified and mitigated separately. The Design-Builder shall update the Forest Impact Plans throughout construction and provide a completed set to the Administration prior to requesting construction final acceptance, showing forest and tree impacts and onsite mitigation plantings

3.13.08.02 Tree Impact Avoidance and Minimization Report

The Design-Build Licensed Tree Expert, Certified Arborist, Maryland Licensed Landscape Architect, or Registered Forester shall prepare a Tree Impact Avoidance and Minimization Report consistent with the *SSCM* Section 120-Tree Preservation and a Tree Preservation Program concurrent with the development of Erosion and Sediment Control Plans on the site where tree impacts will occur.

The report shall detail all impacts to trees and forest areas as well as impact reduction and tree preservation measures. In addition, the report will include the Design-Builder's plan to maintain compliance with the USDA Quarantine on Fraxinus (Ash) species statewide and the MDA Quarantine on Black Walnut species in Cecil County.

3.13.08.03 Tree and Forest Law Permits and Approvals

The Design-Builder shall provide copies of all Roadside Tree Permits, Reforestation Site Review Approvals, Forest Conservation Act (FCA) Approvals and Exemption letters to the Administration. Locations of offsite FCA banking sites, with banking acreages, are to be provided to the Administration.

3.13.08.04 Invasive Species Control Plan

The Design-Builder shall prepare and submit a detailed Invasive Species Control Plan to the Administration to provide a record of invasive management methods utilized, frequency of treatments, and species treated. The Design-Builder will provide inspection reports from treated sites, noting most common invasives treatment and presences of woody invasive trees, shrubs, and vines; herbaceous vines; and bambook likely to re-invade the site. Refer to 3.13.07 Invasive Species Management for requirements and treatments for removal of invasive species and prohibited weeds.

3.13.08.05 Soil Test Reports

The Design-Builder shall comply with the SHA Environmental Guidelines for Construction Activities. Soil testing results for salvaged and furnished topsoil and subsoil will be compiled and provided to the Administration as part of the as-built documents for the contract.

3.13.08.06 Nutrient Management Plan/Report

The Design-Builder shall comply with the MDOT SHA Environmental Guidelines for Construction Activities and prepare Nutrient Management Plans (NMP) when required by MD Law. Copies of all NMP's are to be compiled and submitted to the Administration.

3.13.09.09 As-Built Plans for Landscape, Reforestation and Forest Impacts

The Design-Builder shall submit as-built plans which document all post design changes, field adjustments, and substitutions to the Landscape Plans. The as-built plans shall document actual forest impacts and actual provided reforestation and roadside Tree Law mitigation plantings to verify compliance with the applicable DNR-FS approvals and/or permits.

a. Plans shall include all plant species, cultivars, sizes and locations for the project. The plans shall include all proposed roadside, stormwater management, wetland, and stream restoration plantings and shall be

submitted at a scale no smaller than 1" = 50'. The plans shall include a chart/table outlining sizes of planting zones in acres, and quantities of plants proposed, noting any differences in quantities from previous phases in the form of a chart/table. The stormwater plantings shall include the surface area of treatments, in addition to quantities of plantings. Plans shall include signs, utilities, roadside barriers and other elements that impact planting areas to demonstrate that the greatest amount of planting area was utilized.

- b. As a part of the landscape as-builts, the Design Build Landscape Architect shall conduct a project audit to confirm the actual project impacts to forest areas and mitigation provided.
- c. The Design-Build Landscape Architect shall provide a signed and sealed certification for each site that the installed plantings are in accordance with the as-built plans, noting any field changes of species.

3.13.10 Final Acceptance

3.13.10.1 Landscape Warranties

Installation Phase Acceptance for Trees, Shrubs and Ornamental Grasses/Perennials shall conform to Section 710 of the Standard Specifications. The Design-Builder shall provide a warranty and maintain all landscape plantings for one (1) year after Acceptance for Maintenance of plantings and landscape work. Acceptance for Maintenance for plantings and landscape work shall be implemented after all plant materials in the project have been planted, are true to species and minimum size, and are in a healthy and thriving condition and in accordance with Section 710. During this one-year warranty period, the Design-Builder shall provide all required plant care and maintenance. This work shall include, but is not limited to: watering, weeding, fertilizing, pest control, invasive plant control, mulching, pruning, and replacement of any plant materials that are not in a healthy and thriving condition reflective of the species and in accordance with the MDOT SHA's Standard Specifications for Construction and Materials (SSCM) and related Special Provisions.

3.13.10.1 Stormwater Facility Landscape Final Acceptance

Landscaping in Stormwater management facilities shall be maintained by the Design-Builder until approval of the SWM as-built drawings. Maintenance will include mowing of turf areas, control of invasive species as per the approved invasive species management program, repair of eroded areas, re-seeding bare areas, repairing and replacing soil stabilization matting, and replacing plantings in Bioretention Soil Mix (BSM) to maintain required minimum planting density.

1. The following shrub and perennial survival rates will be required within BSM in the event that SWM as-built approval occurs after the completion of the Plant Establishment Phase in *SSCM* Section 710:

Plant Type	Size	Survival %
Tree	Per Zone 8	100%
Shrub	Per Zone 8	90%
Perennial	#1 CG	90%
Perennial (#SP4)	#SP4 CG	80%
Perennial	Plug 2 in. diam. By 5 in. depth.	70%
(Plug)		

3.13.10.2 Turfgrass Final Acceptance

Turfgrass Final Acceptance shall conform to Section 705 of the Standard Specifications. The Design-Builder shall submit a turfgrass establishment certification package that consists of field photographs and completed turfgrass inspection checklists.

3.13.10.3 Meadow Final Acceptance

Meadow Final Acceptance shall conform to Section 707 of the Standard Specifications. The Design-Builder shall submit a meadow establishment certification package that consists of field photographs and completed meadow inspection checklists.

3.13.10.4 Turfgrass Sod Final Acceptance

Turfgrass Sod Final Acceptance shall conform to Section 708 of the Standard Specifications. The Design-Builder shall submit a turfgrass establishment certification package that consists of field photographs and completed turfgrass sod inspection checklists.

3.13.10.5 Invasive Species Control Acceptance

The Design-Builder shall inspect all sites and certify that sites have no more than 15% invasive species consisting of trees, shrubs, woody or herbaceous vines, bamboo, thistle, Johnsongrass, or Miscanthus. Contract sites in locations adjacent to manicured/maintained properties in urban and suburban settings are to be free from woody invasive species. The Design-builder will also certify that sites are in compliance with invasive species control requirements included as permit conditions.

TC 3.14 GEOTECHNICAL PERFORMANCE SPECIFICATION

3.14.01. GENERAL

The Design-Builder shall utilize a Geotechnical Engineer licensed in the State of Maryland, as needed either internally or thorough the services of a Design/Build Team who specializes in geotechnical consulting to prepare the geotechnical submittals specified in this specification. The design build team will provide a detailed resume of the geotechnical engineer at the Administration's request. The proposed geotechnical engineer shall have at least 10 years of recent geotechnical experience to be considered qualified. The geotechnical engineer shall determining the parameters of a soil boring program that is specific for each of the project sites, including prescribing the necessary tests, the number of soil borings to be taken and evaluating the resulting data.

This Geotechnical Performance Specification shall apply to all geotechnical components of the project. It is the Design-Build Team's responsibility to perform a complete geotechnical program including, but not limited to supplemental subsurface investigation, analyses, and design, as necessary to complete the design and construction of this project. The subsurface investigation, analyses, design and construction shall be performed in accordance with this Geotechnical Performance Specification and all applicable reference and guidelines listed in TC 3.08. It is the Design-Builder's responsibility to obtain written clarification for any unresolved ambiguity prior to proceeding with any subsurface investigation, analyses, design and construction.

3.14.02. REQUIREMENTS

3.14.03.01 Geotechnical Subsurface Investigation

a. Geotechnical Planning Report

The Design-Builder shall prepare a Geotechnical Planning Report and submit to Office of Materials Technology's Engineering Geology Division for review and approval. The subsurface investigation shall not start until the Geotechnical Planning Report is approved.

The Geotechnical Planning Report shall include the understanding of the project, the discussion of potential geotechnical challenges of the project, the detailed supplemental geotechnical investigation plan, the rationale of the supplemental geotechnical investigation plan, and the proposed schedule. The Geotechnical Planning Report shall also include a Quality Assurance/Quality Control (QA/QC) plan for its supplemental subsurface investigation, analyses, design, and construction. See Section 3.14.05.01 "Geotechnical Planning Reports" for detailed submittal requirements of the Geotechnical Planning Report.

The Geotechnical Planning Report shall identify all personnel that will be involved during the supplemental geotechnical investigation and those personnel shall meet the requirements specified in GS 2.1 of Maryland State Highway Administration Standard Specifications for Subsurface Explorations. In addition, all field investigations and laboratory testing shall be performed under

the direct supervision of a Maryland-registered professional engineer with a minimum of five (5) years experience in the performance and supervision of geotechnical engineering projects.

The Geotechnical Planning Report shall identify all laboratories to perform the laboratory testing and include the list of testing for which each laboratory is certified by AASHTO Materials Reference Laboratory (AMRL). All laboratories conducting geotechnical testing shall be AASHTO Materials Reference Laboratory (AMRL) certified. The laboratories shall only conduct those tests for which the laboratory is certified.

The Geotechnical Planning Report shall include the energy efficiency of each SPT drill rig to be used for the project. The amount of driving energy shall be measured using ASTM D4633 - Standard Test Method for Energy Measurement for Dynamic Penetrometers. If energy efficiency of SPT drill rig is not available at the time of developing the Geotechnical Planning Report, the Design-Builder shall include a schedule to conduct the energy measurement for drill rigs. The energy efficiency information of each drill rig shall be also included on each boring logs. Boring logs without energy efficiency information of the drill rig being used will not be acceptable.

b. Field Investigation

The supplemental subsurface investigation shall be performed in accordance with the Technical Specification of Maryland State Highway Administration Standard Specifications for Subsurface Explorations. It is Design-Builder's responsibility to obtain, prior to the start of the subsurface investigation work, all permits, utility clearances and licenses required by any of all Federal, State, County, or local laws or regulatory agency requirements in accordance with GS 2.15 of Maryland State Highway Administration Standard Specifications for Subsurface Explorations.

The soil and rock samples obtained by the Design-Builder for the supplemental subsurface investigation are the property of the Administration. The Design-Builder shall deliver all samples to Field Exploration Division, Office of Materials Technology upon completion. The Design-Builder shall submit two copies of Compact Disks Field Exploration Division, Office of Materials Technology with all original driller's logs, final boring logs in PDF format, and final boring logs in gINT file format. Field Exploration Division, Office of Materials Technology is located at 7450 Traffic Drive, Hanover, MD 21076, Phone: 1-866.926.8501 (Toll free).

The Standard Penetration Test shall be performed every 2 feet in the upper 10 feet and every 5 feet thereafter. All roadway embankments shall have one Standard Penetration Test location performed at least every 500 feet along the roadway embankment. All testing locations shall be performed to a depth of at least twice the height of the embankment beneath the anticipated bearing elevation (i.e. to a depth sufficient to characterize settlement and stability issues) or to auger refusal, whichever is shallower. All cut excavations shall have one Standard Penetration Test location performed at least every 300 feet along the cut area. All testing locations shall be performed to a depth of at least 25 feet below the anticipated bottom depth of the cut or to auger refusal, whichever is shallower.

c. Laboratory Testing

Undrained shear strength, Su, shall be determined using Consolidated undrained (CU), unconsolidated undrained (UU) testing or in situ testing such as CPT, Flat Plate Dilatometer Test (DMT), or VST. Strength measurements from hand torvanes, pocket penetrometers, or unconfined compression tests, or correlated from SPT shall not be used to determine undrained shear strength. If in situ testing is used to determine the undrained shear strength, the undrained shear strength shall be calibrated with the appropriate level of triaxial testing. CPT testing results shall be correlated with soil borings and laboratory triaxial testing to back-calculate the cone factor for the specific soil types under evaluation. The DMT results should be corrected and correlated to undrained shear based on the FHWA Publication FHWA-SA-91-044.

The drained shear strength of cohesive soils, c' and φ' , shall be evaluated by consolidated drained (CD) triaxial tests, or consolidated undrained (CU) triaxial tests with pore pressure measurements. The drained shear strength of cohesive soils, c' and φ' , shall not be evaluated by direct shear tests. The drained shear strength of soils that have both φ' and c' shall be treated as if the soil were either cohesive soils or cohesionless soils. The drained friction angle of granular deposits shall be evaluated by correlation to the results of SPT testing, CPT testing, or other relevant in-situ tests.

In laboratory tests, the rate of shearing load application shall be sufficiently slow to ensure substantially complete dissipation of excess pore pressure in the drained tests, or, in undrained tests, complete equalization of pore pressure throughout the specimen.

Parameters obtained from in-situ testing, without correlation with soil index and validation by a qualified engineer shall not be allowed for design purposes. Laboratory testing conducted on undisturbed samples shall be performed no more than 7 calendar days after sample retrieval.

The Administration has established maximum allowable Total Soil Shear Strength and Maximum Allowable Effective Soil Shear Strength design parameters shown in Table 1.1 and 1.2 for use in design. These soil shear strength design parameters may not be exceeded without laboratory testing and the express written permission of the Administration.

Soil Type		Peak		Residual	
		с	φ	Cr	фr
USCS	Description	(psf)	(degrees)	(psf)	(degrees)
GW, GP, GM,	Stone and Gravel	0	34	0	18
GC					
SW	Coarse Grained Sand	0	17	0	7
SM, SP	Fine Grained Sand	0	17	0	7
SP	Uniform Rounded Sand	0	15	0	6
ML, MH, SC	Silt, Clayey Sand, Clayey	1,500	15	1,200	6
	Silt				
SM-ML	Residual Soils	900	14	700	6
CL-ML	NC Clay (Low Plasticity)	1,500	0	900	0

 Table 1.1 Maximum Allowable Total Soil Shear Strength

SPECIAL PROVISIONS GEOTECHNICAL PERFORMANCE SPECIFICATION

CL, CH	NC Clay (Med-High	2,500	0	1,250	0
	Plasticity)				
CL-ML	OC Clay (Low Plasticity)	2,500	0	1,400	0
CL, CH	OC Clay (Med-High	4,000	0	2,000	0
	Plasticity)				

Soil Type		Peak ⁽¹⁾		Residual	
		c'	φ'	c _r '	φr'
USCS	Description	(psf)	(degrees)	(psf)	(degrees)
GW, GP, GM,	Stone and Gravel	0	40	0	34
GC					
SW	Coarse Grained Sand	0	38	0	32
SM, SP	Fine Grained Sand	0	36	0	30
SP	Uniform Rounded Sand	0	32	0	32
ML, MH, SC	Silt, Clayey Sand, Clayey	0	30	0	27
	Silt				
SM-ML	Residual Soils	0	27	0	22
CL-ML	NC Clay (Low Plasticity)	0	35	0	31
CL, CH	NC Clay (Med-High	0	26	0	16
	Plasticity)				
CL-ML	OC Clay (Low Plasticity)	0	34	0	31
CL, CH	OC Clay (Med-High	0	28	0	16
	Plasticity)				

Table 1.2 Maximum Allowable Effective Soil Shear Strength

(1) The same maximum peak effective shear strength parameters shall be used for peak effective internal friction angle of normally consolidated cohesive soils and to the fully-softened internal friction angle of overconsolidated soils.

The selection of soil shear strength design parameters for borrow materials requires that the Design-Builder obtain soil shear strength parameters from all potential borrow pit sources. Evaluation of the soil shear strength design parameters requires that a composite bulk sample be obtained from the borrow source and have the following laboratory tests performed:

- Moisture Density Relationship (Modified Proctor)
- Grain Size Distribution with wash #200 Sieve
- Moisture-Plasticity Relationship Determination (Atterberg Limits)
- Natural Moisture Content
- Consolidated Undrained (CU) Triaxial Shear Test with pore pressure measurements (sample remolded to 97% of Modified Proctor with moisture -1 percent to +2 percent of

optimum moisture content) to obtain drained and undrained shear strength parameters

3.14.03.02 Geotechnical Analyses and Design

a. Software and Spreadsheets

Software and spreadsheets used for geotechnical analysis and design shall be consistent with AASHTO, FHWA and MDOT SHA guidelines and specifications. The Design-Build team shall provide background information about the software or spreadsheet, assumption made and their limitations, calculation procedure, references, definition of parameters, units, equations used, input values and output values. The Administration reserves the right to accept or reject the use of a particular software or spreadsheet. The calculation results of software or spreadsheet shall also be checked with hand-calculations.

b. Roadway Slopes (Fill Embankment and Cut Slopes)

The need for geotechnical analyses (settlement, bearing, slope stability) for roadway depends on the height of the slope, slope ratio, subsurface conditions, ground water table, adjacent structures, the type of materials being used for fill embankment or materials encountered for cut slope, etc. The Design-Builder shall review and assess the subsurface exploration data provided in the RFP and evaluate the need for additional subsurface exploration and the need for the slope stability, settlement, bearing capacity.

Geotechnical analyses shall be performed for the critical sections. The Administration requires geotechnical analyses (settlement, bearing, slope stability, etc.) being performed for slopes meeting any one of the following scenarios:

- 1) Slopes steeper than 2H:1V;
- 2) Slope higher than 5 feet;
- 3) Slope in soft soil (e.g. wetland);
- 4) Ground water table near or above the toe of the slope;
- 5) Slopes supporting structures, e.g. building retaining wall, bridge, etc.;
- 6) Rock slopes or excavation into rock;

Roadway slope in excess of 20 feet in height shall include a bench at least 10-feet in width at the mid height of the slope. For fill embankment higher than 10 ft, geotextile inclusion shall be placed every three feet (vertical spacing) along the edge of fill embankments per SP 200 Geotextile Inclusion.

All slopes shall be designed to minimize erosion by rainfall and runoff. Adequate drainage and erosion control provisions shall be incorporated in the design and construction of embankments. Drainage and erosion control provisions and means to control seepage shall be incorporated in the design and construction of the cut slopes. The Design-Builder shall have a record of water levels and the slope stability calculation shall model the effect of seepage in the slope stability calculations. The seepage line shall be intercepted with the use of slope drains or horizontal drains

or any other techniques to enhance the stability of cut slopes. If the toe of the slope is adjacent to pond or water, the toe of the slope shall be protected by riprap.

Permanent roadway soil slopes (fill embankment or cut slopes) shall not be steeper than 2H: 1V without reinforcement. Reinforced soil slopes shall be designed and constructed per SP 200 Reinforced Soil Slope, SP 900 Geosynthetic Reinforcement Reinforced Soil Slope, and SP 200 Soil Nail Slope.

c. Slope Stability

Slope stability analyses shall be conducted using limit equilibrium methodologies using a computer program such as PCSTABL, ReSSA, or StedWIN/GSTABL. The use of slope stability design charts shall not be acceptable. The Simplified (Modified) Bishop, simplified Janbu, Spencer, or Morgenstern and Price may be used for rotational and irregular surface failure mechanisms. Simplified (Modified) Bishop Method is required.

Circular, sliding, compound and wedge type failures shall be analyzed for potential occurrence for each critical location. For all slope stability analyses, linear Mohr-Coulomb model shall be used for soil strength model unless it is approved by the Administration. The evaluation of global slope stability shall accommodate potential seepage forces, water infiltration, surficial water runoff and any weak deposits and seams that are adversely impacted by water flow.

Below are the requirements of the minimum safety factor:

- 1) A minimum safety factor of safety of 1.3 is required for fill embankment slopes not steeper than 2H:1V for both global stability and surficial stability analyses.
- 2) A minimum factor of safety of 1.5 is required for cut soil slopes not steeper than 2H:1V for global stability and surficial stability.
- 3) A minimum factor of safety of 1.5 is required for soil slopes supporting structures.
- 4) Reinforced soil slopes shall be designed and constructed per SP 200 Reinforced Soil Slope, SP 900 Geosynthetic for Reinforced Soil Slope and SP 200 Soil Nail Slope.

d. Settlement

The settlement analyses shall include immediate settlement, consolidation settlement, secondary settlement, and time for settlement. Fill embankments shall be designed to keep estimated total long-term settlements limited to one (1) inches during a period of 50 years after construction. Differential settlements within fill sections and across fill/structure interfaces shall be limited to 1/300.

e. Ground Improvement

The use of soil improvement techniques to increase soil shear strength or to reduce compressibility

in order to increase the safety factors for external and internal stability and to reduce settlements to the allowable range will be allowed in the design. Techniques such as soil-cement, vertical drains, surcharge, stone columns, vibro compaction, dynamic compaction, lime columns, cement columns, deep mix methods, rammed aggregate pier, and grouting may be considered.

All soil improvement systems shall be designed using current practice and procedures. The performance of all ground improvement techniques shall be verified with a pre-production, post-production field testing program (e.g SPT, CPT, DMT, load testing, etc.), and instrumentation developed to demonstrate that the proposed methods and design will provide the ground improvement level required to satisfy the performance requirements specified herein.

f. Alternative Materials

Alternative embankment materials for reducing load and settlement such as foamed concrete, expanded polystyrene and fired/expanded clay shale may be considered for use on the project upon approval by the Administration. Recycle materials such as wood chips/products and by-products from steel and coal production, such as slags and fly ashes, will not be allowed for the project. The Contractor shall submit the following for alternative materials proposed for use and approval on the project:

- 1) The purpose of materials;
- 2) Design calculations;
- 3) Material design specification,
- 4) Material strength and engineering properties,
- 5) Construction and placement specification,
- 6) Material quality control plan specification,
- 7) Long-term performance history,
- 8) Certification and test data demonstrating compliance with all MDE and EPA requirements for use of recycled materials, and
- 9) Material Safety Data Sheets from the material supplier.

3.14.03.03 Construction

The Design-Builder is responsible for any and all damage (including, but not limited to settlement and vibrations) to property, structures, or utilities, both inside and outside of the State Right-of-Way, caused by the Work on the Project, and shall appropriately mitigate for these damages.

The Design-Builder is responsible for the temporary support of excavation and it shall be designed in accordance with all applicable OSHA standards and AASHTO requirements including, but not limited to, the appropriate lateral earth pressures, hydrostatic pressure, surcharges and construction loading. Detailed design of all components shall be completed by the Design-Builder, including but not limited to, temporary decking, sheeting, bracing and tie-backs.

The Design-Builder shall prepare instrumentation plans, where appropriate, to monitor existing facilities, temporary construction support structures and in-progress construction of permanent facilities for effects of construction activities such as excavation by blasting, pile driving and

nearby construction equipment traffic. Monitoring may include vibrations, ground accelerations, tilt or rotation, and vertical and lateral movement during and after construction.

The Design-Builder shall prepare a report detailing the proposed program of instrumentation and monitoring, establishing threshold values of monitored parameters, and describing the response plans that will be implemented when threshold parameters are exceeded. After the Administration's review and comment on the instrumentation plan, threshold values and response plan, the Design-Builder shall provide, install and monitor the instrumentation during and after construction and interpret the data. Construction instrumentation monitoring reports shall be submitted to the Administration prior to opening the instrumented work for subsequent construction. Corrective actions shall be taken where the instrumentation data so warrant.

The instrumentation plan shall provide that potentially affected facilities are protected against damage due to the construction of the Work. Limiting values of movement (horizontal and vertical), vibration and acceleration for each facility within the zone of influence of the Work shall be established by the Design-Builder. To establish these limiting values, the designer shall consider the nature of buildings and facilities within the sphere of influence of the construction activities, including their use, foundation systems, structural design and current condition. Records of facilities, where available, shall be examined during the design stage and, where no record exists, assessments shall be made and clearly stated. These assessments shall be subject to verification at the commencement of the construction phase prior to the adjacent construction activity.

In addition to the instrumentation plan, the Design-Builder shall conduct preconstruction and postconstruction surveys for nearby structures and facilities that may be affected by construction activities. The minimum distance for preconstruction and post-construction surveys is 500 feet from existing facilities, temporary construction support structures and construction of permanent facilities to construction activities such as excavation by blasting, pile driving, and nearby construction equipment traffic.

The Design-Builder shall prepare and submit instrumentation monitoring plans to either monitor facilities that may be affected by construction activities or to monitor field performance of specific construction elements in accordance with the following criteria and requirements. The Design-Builder's Instrumentation Engineer shall have a minimum of 5 years of experience in planning instrumentation programs, monitoring, analyzing instrumentation data and providing control and threshold values.

- 1) The extent of the monitoring program will depend on the size and type of the facilities. The instrumentation program shall be implemented to monitor potential settlement, stability of fill or cut slopes and stability of surrounding structures;
- 2) The type and distribution of instrumentation shall demonstrate an understanding of the need, purpose and advantages of using each proposed instrument;
- 3) The plan shall include consideration of environmental effects such as temperature, rain, sun, wind, corrodibility, and electromagnetic wave interference;
- 4) Responsibilities for the instrumentation plan, procurement, installation, recording,

maintenance and protection shall be the Design-Builders;

- 5) The instrumentation plan will provide construction-related control information and accommodate the collection of long-term performance data;
- 6) Test installations may be performed to demonstrate the compliance and acceptability of instrumentation in relation to the Contract requirements;
- 7) If instruments fail or are damaged they shall be replaced at no cost to the Administration and the Design-Builders Geotechnical Engineer may require that all work cease in the area to be monitored by the instruments, with the concurrence of the Administration;
- 8) Monitoring shall be initiated a minimum of 15 days prior to construction of the features being monitored to establish baseline readings; and,
- 9) The results of the vibration measurements shall be used to develop attenuation curves for predicting vibrations at varying distances from the source.

3.14.03. SUBMITTALS

All submittals will be subject to review and approval as per TC Section 3.06.20.1. All submittals shall be prepared, signed and sealed by a Professional Engineer licensed in the State of Maryland. All submittals shall be submitted to the Administration at least 30 days prior related activities (e.g. mobilization, construction, procurement of materials supply, etc.). Copies of these submittals shall also be sent to the Project Engineer and the Engineering Geology Division, Office of Materials Technology (OMT) located at 7450 Traffic Drive, Hanover, MD 21076, Phone: 1-866.926.8501 (Toll free).

3.14.03.01 Geotechnical Planning Reports

The Design-Builder shall prepare Geotechnical Planning Reports for the project per 3.14.03.01. The Geotechnical Planning Reports shall include a detailed method statement describing the general philosophy and methods of investigation, preliminary design and analysis and selection of the anticipated means of construction for the included Project elements. The method statement shall indicate how material and design details are chosen to match selected construction methods and construction details and the soil, rock, and groundwater environment for the site.

For each Geotechnical Planning Report, the Design-Builder shall include the information required per 3.14.03.01 and the following technical information, as a minimum:

- a) Description of geology and various ground types to be encountered along the alignment;
- b) A description of the geotechnical information that was collected and analyzed in developing the Design-Builder's Geotechnical Planning Report;
- c) Assessment of the engineering properties of all soil types, including the expected average and range of soil strengths and deformation properties and the preliminary design parameters for all soil and rock types;
- d) A narrative describing the interpretation of the pertinent geotechnical data used as a basis for preliminary selection, design, and installation of the proposed foundation elements;

- e) A description of the planned supplemental subsurface investigation (See "Design-Builders Subsurface Exploration").
- f) The Geotechnical Planning Reports shall define the investigation, engineering and design approach that will be followed in order to develop the most technically, and environmentally acceptable and durable foundations, cut and fill slopes, retaining structures, pavements, storm water management, and geotechnical designs for the elements included in the Geotechnical Planning Report.
- g) The Geotechnical Planning Report should also include a set of full size or half size plans and cross sections of the areas covered by the report, and a copy of any reports or references referred in the report.
- h) The Geotechnical Planning Report should include calibration information and the efficiency of all hammers and sampling assembly to be used for the project.

3.14.03.02 Geotechnical Subsurface Investigation Summary Report

The Design-Builder shall prepare Geotechnical Subsurface Exploration Summary Report after the completion of subsurface investigation including field testing and laboratory testing. The Geotechnical Subsurface Investigation Summary Report shall include the following, at a minimum:

- a) Scope work of the project and the report;
- b) Location plan showing borings, geophysical testing and other in-situ testing;
- c) Field testing procedures;
- d) Final typed boring logs updated with laboratory testing results;
- e) Electronic copy of the gINT data of subsurface investigation data;
- f) Results of any in-situ testing and geophysical testing;
- g) Description of subsurface conditions, including groundwater, and subsurface profiles;
- h) Results of laboratory tests;
- i) Values assigned to soil parameters for design;
- j) Descriptions of geotechnical risks and approach to respond to risk (e.g. settlement problems, stability, etc.);
- k) Discussion of geotechnical analyses and designs to be performed;
- 1) Discussion of construction considerations and needs such as blasting, instrumentation, pre/post construction survey;
- m) Calibration information and the efficiency of all hammers and sampling assembly used for the project.
- n) A set of full size plans and cross sections of the area covered by the report,
- o) Copies of any reports or references referred in the report.

3.14.03.03 Final Geotechnical Reports

The Design-Builder shall prepare Final Geotechnical Reports prior to releasing constructed elements for subsequent work. The Final Geotechnical Reports shall include the following, at a minimum:

- a) The corresponding Geotechnical Planning Report;
- b) The corresponding Geotechnical Subsurface Investigation Report;
- c) Location map and results of borings, rock coring, geophysical testing and other in-situ testing;
- d) A detailed description of geological and subsurface conditions for each Project element (including a description of site stratigraphy);
- e) Field investigation procedures;
- f) Discussion of groundwater conditions;
- g) Results of laboratory tests;
- h) Values assigned to all applicable soil parameters for design;
- i) All pertinent data and complete discussions of all geotechnical analyses and design;
- j) All relevant design calculations and computer program output/inputs checked and initialed by a Professional Engineer licensed in the State of Maryland;
- k) Conclusions and recommendations for structure foundations, embankments, cut slopes, retaining walls, ground improvement, requirements for backfill materials, etc.;
- 1) Groundwater problems encountered, means of dewatering and/or other solutions;
- m) Designs for support of excavation;
- n) Discussion of pre-construction survey;
- o) Recommendations of instrumentation monitoring and post-construction survey;
- p) Special provisions developed;
- q) A set of full size plans and cross sections of the area covered by the report,
- r) Copies of any reports or references referred in the report.

3.14.03.04 Geotechnical Instrumentation Reports

The Design-Builder shall prepare Geotechnical Instrumentation Reports during the construction per Geotechnical Final Report. The Geotechnical Instrumentation Reports shall include the following, at a minimum:

- a) Qualifications of instrumentation personnel;
- a) Instrumentation location plans;

- b) Instrumentation installation records and calibration data for acquisition equipment used to collect the required instrumentation data.
- c) Instrumentation data and post-construction survey;
- d) Recommendations;
- e) A set of full size plans and cross sections of the area covered by the report;
- f) Copies of any reports or references referred in the report.

TC SECTION 3.15 UTILITY DESIGN AND RELOCATION PERFORMANCE SPECIFICATIONS

3.15.01 Utility Statement

3.15.01.01 General

The Design-Build Team's attention is called to the requirements of Section GP-5.05, GP-7.13 and GP-7.17.

3.15.01.01.01 Buy America Steel/Iron Materials

This section applies to projects partially or totally funded with Federal Funds. The prime contractor or its subcontractors shall comply with Section 165 of the Surface Transportation Assistance Act of 1982 as amended by Section 1041(a) and 1048(a) of the Intermodal Surface Transportation Efficiency Act of 1991 with regard to the furnishing and coating of iron and steel products.

The prime contractor or its subcontractors shall supply certifications to the Project Engineer from the manufacturer of all coating, iron or steel products which document that the steel and iron have been manufactured and the coatings for iron or steel have been applied by the manufacturer in the United States. The Project Engineer shall forward copies of the certifications to the Office of Materials Technology for review and approval prior to such items being incorporated into the permanent work. Certifications shall extend to materials utilized in manufactured and fabricated products purchased by the Contractor.

Products manufactured of foreign steel or iron materials may be used, provided the cost of such products as they delivered to the project does not exceed 0.1% of the total contract amount, or \$2500, whichever is greater. If a supplier or fabricator wishes to use a partial fabrication process where domestic and foreign source components are assembled at a domestic location, the "as delivered cost" of the foreign components should include any transportation, assembly and testing costs required to install them in the final product.

This applies to all iron, steel and coating materials used for utility work incorporated into the project including materials/items supplied by the Utility Company.

3.15.01.02 Utilities Within Project Limits

The Design-Build Team (DBT) is alerted to the potential presence of various overhead and underground utilities within the limits of the Maryland Department of Transportation State Highway Administration (MDOT SHA) Right-of-way and within the limits of the construction project. No utility designations, survey of pole locations and overhead utilities, test pitting or other

SCOPE OF WORK FOR DESIGN-BUILD

utility information has been obtained by the Administration. It is the responsibility of the DBT to communicate with the utility companies and use all means necessary to obtain all aerial and underground utility information that will be required to complete design and construction of the project. This shall include but not be limited to:

- utility designating service to locate underground utilities and service connections
- coordinate with utility companies to obtain all as-built information
- perform test pits to verify utility locations as needed
- survey locations of any pole locations in project area and not overhead utility locations
- Coordinate with MDOT SHA

The DBT is responsible to coordinate their project with the utility companies for the utilities located at each site. The DBT is responsible to coordinate with those utilities on the overall project designs, schedules and construction.

It is the responsibility of the DBT to avoid, and protect all utilities as necessary to maintain service, safety and project schedule with minimal disruption to the traveling public or utility customers. It may be necessary for the DBT to utilize non-typical methods in some cases to avoid impacting utility facilities. Associated costs will be incidental to the overall contract lump sum.

The Administration will not entertain any aerial or underground utility relocations for this project.

Mr. Robert Tucker	Mr. Mark Loeffler	
MDOT SHA District Utility Engineer (DUE)	MDOT SHA Acting District Utility Engineer	
District 2	(DUE)	
615 Morgnec Road	District 3	
Chestertown, MD 21620	9300 Kenilworth Ave.	
Email: RTucker1@sha.state.md.us	Greenbelt, MD 20770	
Phone: 410-810-3275	Email: MLoeffler@sha.state.md.us	
	Phone: 301-513-7350	
Mr. Michael Pasquariello	Mr. William Mcfarland	
MDOT SHA District Utility Engineer (DUE)	MDOT SHA District Utility Engineer (DUE)	
District 4	District 5	
320 West Warren Road	138 Defense Highway	
Hunt Valley, MD 21030	Annapolis, MD 21401	
Email: MPasquariello@sha.state.md.us	Email: WMcFarland@sha.state.md.us	
Phone: 410-229-2341	Phone: 410-841-1013	
Mr. David R. Felker	Ms. Andrea Abend	
MDOT SHA District Utility Engineer (DUE)	MDOT SHA District Utility Engineer (DUE)	
District 6	District 7	
1251 Vocke Road	5111 Buckeystown Pike	

Contact Information:

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La Vale, MD 21502	Frederick, MD 21704
Email: DFelker @sha.state.md.us	Email: AAbend@sha.state.md.us
Phone: 301-729-8439	Phone: 301-624-8115

3.15.01.05 Utility Coordination

The DBT shall incorporate and make provisions in the design for all existing utilities. The DBT shall establish and maintain ongoing coordination with utility owners to fulfill the following requirements:

- a) Obtain plans from the utility companies.
- b) Assure adequate protection of their utilities.
- c) Maintain utility service at all times during construction of the project.
- d) Identify all potential conflict areas both overhead and underground and perform test pits to verify conflicts.
- e) Conduct alternative studies to avoid utility relocation

3.15.06 Existing Utility Locations

The DBT must notify public service companies of work intentions 48 hours before work is to begin, by calling MISS UTILITY at 1-800-257-7777 or by applying for utility locates online at: <u>http://www.missutility.net/.</u> All notifications to the above utility companies and "MISS UTILITY", at 1-800-257-7777, shall be given 48 hours (two full working days) in advance of working in the area of each specifically affected utility. The notification to "MISS UTILITY" is required whenever any excavating or similar work is performed.

The DBT is responsible for following the MISS UTILITY process prior to any excavation or work associated with this project. The cost for this coordination and time consumption is considered incidental to all work performed.

3.15.07 Utility facilities owned by the MDOT SHA

<u>Regarding stake out of State Highway Administration owned facilities, please make note of our new notification procedures. SHA is now part of MISS UTILITY, and we also charge fees for our locates.</u> The DBT <u>must</u> provide the contract number (AX7665D82) when contacting MISS UTILITY for locates. This provision is required whether the DBT contacts MISS UTILITY via the internet or by phone. Failure of the DBT to comply with this requirement may result in a locate fee by MDOT SHA for which the DBT <u>will not</u> be allowed to recover. When processing online, you shall complete the <u>LOCATE REQUEST FORM</u>. On this form, toward the bottom is the Section – <u>EXCAVATION INFORMATION</u>. Under this section, in the blank space to the right of

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"Work Being Done For" type – AX766B5D1. This will allow MISS UTILITY to know what District number and highway agency that you are working for.

Regarding the marking of MDOT SHA owned facilities, the DBT shall contact the District Utility Engineer for the applicable District and a minimum 2-weeks advance notice is required.

3.15.08 Protection of Existing Utilities During Construction

The DBT shall maintain a minimum of three (3) feet of cover over all existing utilities that will be left in service during construction. In the event that this requirement cannot be met, the DBT shall immediately contact the impacted utility owner to determine alternative means of protection.

3.15.09 Surface Utility Frames

The DBT shall make all adjustments to surface utility frame and covers located in pavement and concrete, not limited to manholes and handboxes. The DBT must coordinate with the utility owner on the specifications and schedule. This work is incidental to the respective LS item.

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TC 3.16 MAINTENANCE OF TRAFFIC (MOT) PERFORMANCE SPECIFICATION

3.16.01 General

The Design Build Team shall develop and implement MOT Plans, if required, for pedestrians (including those with disabilities), bicycles, and vehicular travel ways in accordance with the requirements of this specification including performance requirements, standards and references, design and construction criteria, maintenance during construction, and required reviews.

This performance specification provides the flexibility to establish a TMP (if required) and to adapt Maintenance of Traffic (MOT) operational changes throughout the Project life to produce benefits or savings to the Administration or the Design-Builder without impairing the essential functions and characteristics of the Project, such as safety, mobility, traffic operations, durability, desired appearance, maintainability, environmental protection, drainage, and other permitted constraints.

Work zone impacts, including impacts on the environment and surrounding communities, shall be kept to a minimum, and shall be considered when developing and implementing the MOT.

3.16.02 Guidelines

Maintenance of Traffic shall be in accordance with this Maintenance of Traffic (MOT) Performance Specification and the relevant requirements of the Guidelines and References in TC 3.08

3.16.03 Performance Requirements

Administration responsibilities

The Administration's responsibilities include the following activities:

- A) Maintaining Quality Assurance (QA) of any MOT analysis, work zone impact management strategies and temporary traffic control plans from the Design-Builder;
- B) Liaising with and monitoring the Design-Builder's performance for compliance with this Contract's requirements;

Design-builder personnel requirements

This project requires the Design-Builder to have a team experienced in Maintenance of Traffic, including work zone design, work zone traffic analysis, and traffic control devices and setups.

Traffic Manager:

The Design-Builder shall provide a Traffic Manager (TM) on-site whose sole responsibility is to supervise and continuously monitor the installation and maintenance of all temporary traffic control devices. The TM shall be equivalent to, meet the requirements of, and perform all duties of Section 104.18 of the Administration's Standard Specifications for Construction and Materials. The Design-Builder shall authorize the TM to direct traffic changes to ensure safe and continuous traffic flow and to direct traffic operations after a traffic incident has occurred. The TM shall document all daily maintenance of the traffic control setup, including but not limited to maximum queue lengths/delays, work zone modifications, incidents, and suggested improvements. Minimum qualifications of the TM include successful completion of the Administration's Temporary Traffic Control Traffic Managers Training Course and five years experience in work zone traffic control.

Flaggers:

The Design-Builder shall provide flaggers with a current American Traffic Safety Services Association (ATSSA) flagging certification.

3.16.03.01 Maintenance of Traffic – General Requirements

All maintenance of traffic design and implementation shall be performed in accordance with the following performance requirements:

- A) Provide for the safe and efficient passage of pedestrians (including those with disabilities), bicycles, and vehicular traffic through and around construction zones;
- B) Prohibit use of new permanent pavement construction as haul route(s);
- C) Minimize negative impacts on residents, commuters, and businesses;
- D) Provide convenient and logical rerouting of traffic (by using advance warning systems and directional and informational signing, lighting, and striping) to provide "driver friendly" detours and to maximize the safety of the traveling public;
- E) Maintain and provide access at all times to property by owners, customers, visitors, and emergency vehicles;
- F) Provide a safe travel corridor while minimizing any unnecessary investment in the existing infrastructure that is being replaced;
- G) Develop and coordinate MOT activities with the Maryland State Police, local law enforcement, and other emergency service agencies to ensure public safety and emergency response times are not compromised;
- H) Coordinate MOT activities and Traffic Control Plans with other construction projects;
- I) Provide Traffic Control Plans (TCPs) for each major phase of construction (see Section 3.16.06 of this performance specification); and
- J) Provide for a Public Outreach campaign to be implemented in cooperation with the Administration.
- K) Develop an incident management plan for accidents occurring within the Project limits, including accident prevention strategies, emergency procedures, reporting

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requirements, and mitigation strategies.

3.16.04 Design and Construction Criteria

3.16.04.01 Traffic Through Construction Zones

The Design-Builder shall perform the following:

- A) Implement Traffic Control Plans for all roadways within the Project limits in a manner that safely and efficiently accommodates all road users at all times.
- B) Provide all material, labor, equipment, and personnel to effectively carry out the MOT. All equipment and tools shall be in good operating condition and shall be kept in proper adjustment throughout the duration of the project. All materials and supplies shall be of good quality and suitable for the assigned work.
- C) Provide and use all safety equipment including (but not limited to) hard hats, safety vests and clothing required by State and Federal regulations and SHA policies and procedures.
- D) Begin MOT activities at the start of construction work (including preparatory MOT work), or when first hauling construction materials and/or equipment, whichever is earliest and continue MOT activities until Completion of the Project.
- E) Arrange and host a pre-traffic switch meeting with the Administration and all affected agencies at least two weeks prior to switching traffic.
- F) Identify desired full roadway closures (for any period of time) to the Administration for review and concurrence during the design review process.
- G) Correct all traffic control deficiencies immediately upon notification or observance of the deficiency.
- H) Design all geometric aspects of temporary roadways for the assigned posted speed.
- I) Design all MOT plans to accommodate drainage such that there are no puddles or icing on the traveled roadway or shoulders.
- J) Ensure appropriate MOT and flagging procedures are employed during all phases of construction, including mobilization activities.

3.16.04.02 Public Information and Outreach

Actively assist the Administration in providing advance information to the public regarding construction phasing, detour routes, and expected travel impacts. Coordinate with the Administration regarding special events that may affect traffic patterns through and around the Project limits and adjust the MOT as needed.

3.16.04.03 Public Access

Maintain access to all businesses, residences, local streets and private driveways at all times, including all temporary approaches and crossings of and intersections with roads and streets. Consider any special access needs of property owners and tenants, such as

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business hours, delivery schedules and circulation patterns.

3.16.04.04 Pedestrian and Bicycle Traffic

The Design-Builder shall maintain all existing pedestrian and bicycle access along existing facilities at all times during construction. The pedestrian access way shall be fully compliant with all applicable regulations for accessibility, as defined by the Americans with Disabilities Act (ADA). Whenever an existing pedestrian access route in the public right of way is blocked by a construction, alteration, or maintenance activity, an alternate accessible pedestrian route must be provided.

Recreational trails, including bicycle paths, shall also be maintained and kept in good condition. Access to all recreational facilities shall be provided and coordinated with the appropriate governing agency.

3.16.04.05 Schools and Public Transportation Agencies

The Design-Builder shall coordinate with the local schools, appropriate Board of Education, and public transportation agencies for both city and local counties to maintain bus, private vehicle, and pedestrian access to education facilities and public transportation services in the area. Access to bus stops shall also be maintained. Construction impacts on school bus and public transportation routes shall be coordinated with the local agencies.

3.16.04.06 Detour Routes

Design, place, and maintain all traffic detours required during construction. Wherever possible, use State routes for detour routes. Obtain all necessary permits from all agencies for temporary roadways, including construction and/or haul routes.

Detour routes shall be required when complete road or ramp closures or elimination of a particular movement or movements at an intersection approach are necessary. Proposed detour routes shall be included in the Traffic Control Plans (TCP) and reviewed through the design review process (see Section 3.16.06 of this performance specification). Complete closures of roadways will not be permitted without the express written approval of the Administration as part of the design review process prior to closure. Specific identification and written documentation of the proposed closure, including traffic and operational impacts, shall be provided to the Administration during the design review process for each request.

3.16.04.07 Motorist Guidance

The Design-Builder shall provide guidance and signage to and along the entire length of every detour route to motorists who are diverted around or traveling through the construction areas. Signing that is not in compliance with the MD MUTCD or Category 1 of the Administration's Book of Standards shall be corrected within 24 hours, unless the

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sign is a critical regulatory or warning sign, in which case the sign shall be corrected within six (6) hours of notice. If the deficiency is caused by an accident, the six (6) hours begins when access to the area is available.

For closures of surface streets or changes in roadway configurations, the Design-Builder shall provide guide signs in accordance with the TCP for that particular phase, MD MUTCD and Category 1 of the Administration's Book of Standards. At least seven (7) Calendar Days before a road closure or major change in the roadway configuration or travel pattern, the Design-Builder shall utilize portable variable message signs warning motorists of the pending changes. Messages to be displayed shall be submitted to the Administration for review and comment. The Design-Builder shall coordinate motorist guidance activities with the Administration.

3.16.04.08 Construction Access and Haul Routes

Provide all construction roads required for delivery of fill, asphalt, concrete, bridge girders, and all other materials required for the Project. Obtain all necessary permits from all applicable agencies for construction, maintenance, and removal of temporary roadways, including construction and/or haul roads.

3.16.04.09 Local Roadway Crossings

The Administration will allow construction traffic to cross roadways that intersect with the Project as long as the crossing is maintained within the Project right-of-way. Proper flagging procedures and/or temporary traffic signals are required to facilitate construction traffic crossing local roadways. The Design-Builder shall ensure that delays incurred to local roadways as a result of at-grade crossing operations do not exceed the mobility thresholds established by the Administration's "Work Zone Lane Closure Analysis Guidelines".

3.16.04.10 Emergency Response

The Design-Builder shall cooperate with the Maryland State Police, local law enforcement, and other emergency response agencies in their response to accidents, fires, spills, or other emergencies in any area affected by the Project, including those on the construction site and on traffic lanes open to the public. The Design-Builder shall cooperate in all Administration investigation of accidents and other incidents along the Project.

The Design-Builder shall work with emergency service providers and address their concerns about emergency access to and in the corridor, which may include installing gates to allow emergency personnel to access the Project area.

3.16.04.11 Field Verification of Traffic Operations

The Design-Builder shall be responsible for monitoring queues and delays during

maintenance of traffic operations. If the thresholds established in the Administration's

"Work Zone Lane Closure Analysis Guidelines" are exceeded, the Design-Builder shall modify the maintenance of traffic plans or incorporate other mitigation strategies to reduce the queues and delays below the threshold levels.

3.16.04.12 MOT Restrictions

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Refer to Special Provision – Section 104.01 – Traffic Control Plan for work restrictions and temporary lane closure and/or shoulder closure requirements.

3.16.04.13 Advance Notification Requirements

The Design-Builder shall submit to the Administration a lane closure permit request form for approval of each lane closure. Lane closures will not be allowed without an approved written closure request.

Type of Lane	Minimum	Maximum Advanced
Closure	Advanced Notice	Notice
1	30 Days	45 Days
2	10 Days	21 Days
3	7 Days	14 Days
4	3 Days	14 Days

Type 1- Planned and acceptable closures of an arterial or local street, traffic switches, new road openings, or changed traffic patterns.

Type 2- A lane(s) closure that would have significant impact on traffic, such as temporarily stopping traffic completely (traffic drags), closing 2 or more lanes, or flagging operations.

Type 3- A lane closure that would have minor or no impact on the flow of traffic, such as closing one lane on a three-lane roadway during off-peak hours.

Type 4- A lane closure that would close a shoulder (right or left).

For Type 1 closures, the Design-Builder shall make provisions in the MOT Phase Plan for local traffic to access properties and businesses at all times on the closed arterial or local street.

Type 1 and 2 closures will require extensive media and stakeholder notification effort and coordination among various local and State agencies. The Design-Builder shall assist with all notification and coordination efforts

All notice exclude weekend and holidays.

The lane/shoulder closure request shall be submitted on a Lane/Shoulder Closure Request

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Form provided by the Administration and shall be submitted electronically. The information provided on the form shall include but limited to the following:

- 1) Location: Roadway name or State route number;
- 2) Project Number;
- 3) Direction: West/East/North/South;
- 4) Lane Closure Type: 1, 2, 3 or 4;
- 5) Duration: Date and times;
- 6) Limits: Beginning or work zone to end or work zone;
- 7) Nature of work and justification of lane/shoulder closure;
- 8) Number of remaining lanes on roadway;
- 9) Lane(s)/Shoulder(s) to be closed-specifically left, right, middle, left middle, right middle, shoulder, etc.;
- 10) Ramp location to be closed;
- 11) Traffic Control Plan sheet number;
- 12) Appropriate Administration typical application;
- 13) Point of Contact: Field Inspector;
- 14) Contact Information;
- 15) Any detours required;
- 16) Notes: Any other pertinent information that may be needed to facilitate in clarifying closures; and
- 17) State Police request and required number of troopers.

The Design-Builder shall contact and notify the Administration 30 minutes prior to initiating all lane closures and after removing all lane closures.

3.16.04.14 Approval of Temporary Traffic Control Devices

All items for the maintenance of traffic shall be crashworthy in conformance with NCHRP Report 350 or MASH. When conformance with NCHRP Report 350 is required, the manufacturers' certifications that the devices comply with the specified criteria shall be reviewed by the Design-Builder and approved in writing, and copies of the certifications and approvals shall be provided to Administration for consultation and written comment.

All maintenance of traffic products, including temporary pavement markings, used on the Project shall be listed on the Administration's Office of Traffic and Safety's Approved Product List for Temporary Traffic Control Devices and Miscellaneous Items, unless submitted and approved through the Administration's Maryland Product Evaluation List (MPEL) Program.

3.16.05 Traffic Control Plans

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A MOT Phase Plan shall be developed for each major phase of construction that requires diversion of traffic. MOT Phase Plans shall be presented on paper no smaller than 22" by 34" with appropriate scale. The MOT Phase Plans shall be site specific for each separate portion of Work and shall not simply reference typical drawings, taper tables, or illustrations in various Administration Guidelines or MUTCD. The following components shall be included in each MOT Phase Plan:

- A) Description of MOT phase with respect to lane, ramp, or road closures and proposed detour routes;
- B) Traffic Analysis/Traffic Modeling for the MOT phase;
- C) Signal timing Plans if changed;
- D) Temporary roadways and striping Plans along with plans for any off-site modifications to local roads to accommodate detoured or diverted traffic including restoration plans to return the site to pre-construction condition;
- E) Temporary drums and barrier locations with spacing and type of barricades;
- F) All temporary traffic control devices necessary to safely and efficiently construct a particular portion of Work;
- G) Motorist information and guidance;
- H) Temporary signing, signals, and lighting plans;
- Specific sign messages with sign sizes, spacing or referenced distances, and MD MUTCD sign designations. The Design-Builder shall provide details for all proposed non-standard MD MUTCD signs;
- J) Pavement marker changes shall be specific and clearly shown on the Traffic Control Plan with respect to lane widths, pavement marking material, color, location, and widths. Dimensions are necessary to assure proper installation of the pavement markings;
- K) Flagging locations; and
- L) Emergency response information.

TC 3.17 DRAINAGE, STORMWATER MANAGEMENT, AND EROSION & SEDIMENT CONTROL PERFORMANCE SPECIFICATION

3.17.01 GENERAL

Provide storm drain systems, stormwater management, and erosion and sediment control required to serve the Project. This may necessitate the assessment and improvement of existing drainage infrastructure and stormwater management facilities as well as the construction of new infrastructure and facilities. Ensure that new or rehabilitated infrastructure and facilities cause no adverse impacts upstream and downstream of the Project site.

3.17.02 GUIDELINES AND REFERENCES

Design and construction of storm drain systems, stormwater management, and erosion and sediment control shall be in accordance with this Drainage, Stormwater Management, and Erosion & Sediment Control Performance Specification and the relevant requirements of the Guidelines and References according to TC 3.08.

3.17.03 REQUIREMENTS

3.17.03.01 Storm Drain and Conveyance Design

Design all storm drain and conveyances including but not limited to open channels, inlets, manholes, junction boxes, pipes, bends, and culverts.

Waterway Construction (COMAR 26.17.04) review and approval is required for waterway impacts. It shall be the Design-Builder's responsibility to obtain this approval from MDE for their project.

3.17.03.01.01 Storm Drain and Conveyance Design - General Requirements

Perform storm drain and conveyance design according to the following criteria and regulations.

- A. Design and construct the storm drain and conveyance systems including the repair and replacement of unstable or deteriorated outfalls. Design also includes the regrading of existing outfalls and the replacement of adversely sloped and level (zero gradient) pipes to remove adverse slopes and provide positive drainage.
 - B. Once construction activities are complete, clean all existing pipes and new pipes per Standard Specification for Construction and Materials 303.03.07. Also clean all existing drainage structures per Standard Specification for Construction and Materials 305.03.07.
- C. Inspect all existing pipes and drainage structures that will remain in-use in the Final Design and assess for structural integrity, and hydraulic capacity

and performance. Compile inspection reports and submit for concurrence. Include photographs and a written report describing the structural integrity. Repair or replace all existing pipes and drainage structures as directed by the Administration.

- D. For all existing metal pipes and existing pipes having diameters greater than 18 in. that are not used in the Final Design, remove per Standard Specification for Construction and Materials 303.03.04. For all other existing pipes not used in the Final Design, abandon per 303.03.06. For all existing drainage structures that are not used in the Final Design, remove per Section 207.
- E. Provide completed designs for all temporary and permanent pipe systems.
- F. Do not create adverse impacts flooding to adjacent properties, infrastructure, or environmental resources. Accommodate the performance of work beyond the established limits of work when necessary.

3.17.03.01.02 Storm Drain and Conveyance Design - Specific Criteria

Follow these Specific Criteria where conflicts arise between these Specific Criteria and those contained in the TC Section 3.08.

3.17.03.01.02.01 Culverts

A list of approved software may be found at http://www.roads.maryland.gov/OHD2/HDM_guidelines_software.pdf.

- A. Calculate discharges for appropriate return period storms for culverts using USDA NRCS TR-55 and TR-20 hydrology models using the latest NOAA Atlas 14 rainfall data. When the drainage area exceeds 200 acres, GIS Hydro may also be used. Use HEC-RAS or River Morph for floodplain and stream modeling.
- B. Ensure the 100-year headwater pool at new culverts remains within the right-of-way or easements. For existing, replaced, or extended culverts, ensure that the 100-year storm headwater elevation in the proposed conditions is at or below the existing 100-year headwater elevation.
- C. Calculate culvert headwater and perform overtopping analysis using the latest version of FHWA Hydraulic Toolbox or other approved software. Analyze the outfall using the subroutine and submit the information as part of the drainage reports.

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3.17.03.01.02.02 Drainage and Conveyance Design

Adhere to the requirements in the MDOT SHA Highway Drainage Manual, the Highway Drainage Manual Design Guidelines, the MDOT Practical Design Guide, and the following, to the satisfaction of the Administration's Highway Hydraulics Division.

- A. Spread for a closed section on Interstates and other high-speed roadways, with regards to the passing lane, may be no more than 3 ft.
- B. Flow across entrances may be no more than 1 cfs for the 2-year storm event. Maximum flow from the end of curb and gutter is 0.5 cfs for the 2-year storm event.
- C. Use the drainage structures in the Administration's "Book of Standards for Highways and Incidental Structures" or approved equal(s) where practicable. When modified structures or otherwise non-standard structures are needed, design to HS-25 minimum loading and place the details on the plans. Develop details for cast-in-place structures. During construction, shop drawings are required. Obtain approval of the shop drawings prior to fabrication.
- D. Avoid grated inlets in the travel and turning lanes. When grated inlets are used, provide concrete aprons. Unless specifically exempt, use bicycle-friendly grates.
- E. Avoid placing grated inlets in crosswalks and at sidewalk ramp sumps. Ensure that inlets in or immediately adjacent to crosswalks are compliant with the American with Disabilities Act (ADA).
- F. Avoid placing manholes in travel lanes.
- G. Avoid situations that create ponding water in crosswalks and at sidewalk ramp sumps.
- H. Breaks in curbs and curb cuts for drainage purposes are not acceptable.
- I. Design ditch linings using HEC-15 "Design of Roadside Channels with Flexible Linings."
- I. Design pipe outfalls using HEC-14 "Hydraulic Design of Energy Dissipaters for Culverts & Channels." Design outlet protection for the storm flows actually getting to it. If a culvert or SWM facility outlet pipe was sized for the 25 or 100-year storm, the outfall stabilization shall match. Refer to Geotechnical Performance Specifications for slope design and construction requirements, and the Environmental Performance Specification for permitted wetland impacts and wetland avoidance.

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3.17.03.02 Floodplain and Waterway/Wetland Coordination

It shall be the Design-Builder's responsibility to coordinate analysis of applicable drainage crossings with MDE, FEMA, and the Administration.

3.17.03.03 Stormwater Management (SWM)

Provide stormwater management that is acceptable to the Administration's Highway Hydraulics Division.

3.17.03.03.01 Stormwater Management Approach

Determine and implement a stormwater management approach using the minimum criteria.

- A. Implement the best fit given the context, adjacent communities, local ecology, and maintainability.
- B. Implement stormwater management that requires lower maintenance first. Consider maintenance needs when designing SWM facilities.
- C. Provide maintenance access to outfalls, including and necessary grading and access roads to conveniently and safely access outfalls for maintenance and repairs.

3.17.03.03.02 Water Quality Bank (WQB)

Complete the Water Quality Summary Sheet (WQSS) at each submittal milestone (Concept, Site Development, and Final). The Final WQSS must be signed by the Administration's Highway Hydraulics Division. Submit the Final WQSS for signature at least two working days prior to any submittal to the SWM/ESC Approval Authority that requires a signed WQSS. Submit the raw Excel version. HHD will sign the WQSS and return a PDF version. At a minimum, meet all water quality requirements and maintain a zero balance on the WQSS for the Project. Do not debit the WQB. Provide all of the above each time SWM/ESC Approval Authority issues a modification to the approval.

3.17.03.03.03 SWM Specific Design Criteria

- A. Design to the satisfaction of the Administration's Highway Hydraulics Division, obtain approval from SWM/ESC Approval Authority, and implement the approved Plan.
- B. Adhere to the requirements of the MDE 2000 Maryland Stormwater Design Manual Volumes I and II and the MDOT SHA Sediment and Stormwater Guidelines and Procedures. Adhere to additional guidance provided by the

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Administration's Highway Hydraulics Division.

- C. Design trash racks that stand away from and completely enclose riser openings.
- D. Placement of trees and other woody vegetation on embankments is not accepted. Placement of trees and other woody vegetation within 15 ft. from the toe of fill of embankments is not accepted. Placement of trees and other woody vegetation within 25 ft. of outfall structures is not accepted.
- E. Use filter diaphragms for embankment seepage control. Anti-seep collars are not accepted.
- F. Underground facilities require that no point within each separate chamber of a facility shall be more than 100 feet from an access point. For example, a 200 foot long chamber with a manhole in center meets this requirement since no point in chamber is more than 100 feet from an access point.
- G. The minimum service life for underground SWM facilities is the same as the required service life of the storm drain system for the specific roadway class.
- H. Perform anti-flotation and stability checks with a Factor of Safety against overturning for all outlet structures and any other structure that is submerged for any period of time.
- I. SWM facilities with permanent check dams may not pose a roadway hazard when within the clear zone. In general, check dams are composed of topsoil with 1 ft wide flat tops and 6:1 side slopes. Check dams may be spaced no closer than 50 ft when measured from center-to-center.
- J. Swales and all other SWM facilities may not adversely impact the pavement section and are subject to the same freeboard requirements as conveyance channels for the 10-year storm and therefore may not be appropriate for use in medians.
- K. Use SWM facilities that minimize long-term maintenance. Maximize low maintenance facilities.
- L. All SWM facilities require a SWM Fac. Number for inventory and tracking purposes. Request tracking numbers from the Administration's Highway Hydraulics Division.
- M. Include the latest data tables for each SWM facility on the plans. Use of the Reduced RCN method for the 2-year storm quantitative management is acceptable.
- N. Provide adequate access to SWM facilities for maintenance. Ensure each part of the facility is accessible by the equipment needed to maintain or rehabilitate

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the facility. Provide driveway aprons in reasonable locations with consideration of appropriate site distance and meeting other highway design considerations for driveway apron access. Minimize the need for equipment to be driven in reverse.

- O. Avoid placing SWM facilities within the clear zone.
- P. Ensure utilities are at least 10 ft from the SWM facility when measured from the ESDv ponding elevation. Do not cut off or block access to utilities. Avoid placing utilities behind SWM facilities. Utilities in or crossing the footprint of SWM facilities is unacceptable.
- Q. For all qualifying SWM facilities, ensure compliance with MD Pond Code 378.
- R. For all qualifying SWM facilities, ensure compliance with MDE Dam Safety requirements.
- S. Use of yard inlets as outlet structures for SWM facilities is not accepted.
- T. Maximize environmental site design (ESD) to the maximum extent practicable (MEP). Ensure water quality requirements are met and provide excess water quality treatment when reasonable to do so.
- U. Avoid placing SWM facilities behind traffic barrier of any kind. If this is not possible, ensure convenient and safe maintenance access to the SWM facility. Avoid hardships and obstacles to maintenance.
- V. Avoid placement of SWM facilities behind noise walls since it would interfere with maintenance activities.

3.17.03.04 Erosion and Sediment Control (ESC)

Design to the satisfaction of the Administration's Highway Hydraulics Division, obtain approval from SWM/ESC Approval Authority, and implement the SWM/ESC Approval Authority approved Plan. Obtain all approvals prior to commencing earth disturbing activities.

3.17.03.04.01 ESC Specific Design Criteria

Ensure that ESC design is performed by a qualified Professional Engineer, licensed in the State of Maryland, and holds valid certifications in the Maryland Department of the Environment (MDE) Erosion and Sediment Control training course (formerly "green card") and in the MDOT SHA ECS certification ("yellow card").

Uphold and follow all guidance from the MDE 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control to the satisfaction of the Administration's Highway Hydraulics Division and the Approving Authority. In addition, clearly delineate the Limit of Disturbance (LOD) on the ESC plans. Include tables of all break points with stations and offsets, northings and eastings.

Cover slopes outside the roadway hinge point, flatter than and including 3:1 slopes, with 4 inches of topsoil prior to permanent seeding and mulching. Cover slopes within the roadway hinge points, flatter than and including 3:1 slopes, with 4 inches of topsoil.

3.17.03.05 Stormwater Management (SWM) Facility Maintenance

Maintain all stormwater management facilities constructed in the Contract until the SWM facility as-built package receives Final Acceptance and the Project is accepted for maintenance. SWM facility maintenance includes but is not limited to vegetation management, mowing, removal and replacement of dead woody vegetation, ensuring adequate vegetation cover, and that the SWM facilities function as designed per the approved plan and SWM Report.

TC 3.18 NOISE ABATEMENT PERFORMANCE SPECIFICATIONS

Design and construction of new Noise Abatement is not anticipated on this project. It is the responsibility of the Design-Build team to maintain all existing Noise Abatement. Any damage to Noise Abatement is the sole responsibility of the Design-Build Team and shall be remediated at no additional cost to the Administration. All remediation shall be done per applicable guidelines and standards and approved in writing by the Administration prior to work progressing.

Any removal and resetting of Noise Abatement panels for access shall be the Design-Builder's responsibility and shall be approved in writing by the Administration prior to work progressing. Removal and resetting of Noise Abatement panels and associated costs are incidental to the overall contract lump sum. The condition of any noise abatement that is reset shall be equal to or greater than existing. Any damage to Noise Abatement is the sole responsibility of the Design-Build Team and shall be remediated at no additional cost to the Administration. All remediation shall be done per applicable guidelines and standards and approved in writing by the Administration prior to work progressing.

TC 3.19 CONSTRUCTION REQUIREMENTS PERFORMANCE SPECIFICATION

3.19.01 Construction Standards

All construction work for this project shall be in accordance with the current edition of the MDOT SHA Standard Specifications for Construction and Materials, project specific Special Provisions, The "standard" Special Provisions, the Special Provision Inserts, and all provisions included in Part III of this RFP.

3.19.01.1 Book of Standards

Details and dimensions of drainage structures, TCPs, traffic barriers, etc., shall comply with the Administration's "Book of Standards, Highway and Incidental Structures."

3.19.01.2 Specifications for Construction and Materials

Shall comply with the Maryland Department of Transportation State Highway Administration 2017 Standard Specifications for Construction and Materials, including all Special Provision Inserts and these Special Provisions.

3.19.01.3 Industry Standards

The Design-Build Team shall adhere to industry standards pertaining to civil construction, such as ASTM and AASHTO or Utility and utility owners' specifications and standards. If an item of work is not covered by the Administration's specifications and standards, the materials and construction methods used shall meet the appropriate, nationally accepted industry standards and be submitted to the Administration for approval.

3.19.01.4 Utility Details

All Utility work shall be done in accordance with the latest edition of the utility owners' details and specifications.

3.19.02 Construction Stakeout

The Design-Build Team shall refer to SP 107 - CONSTRUCTION STAKEOUT FOR DESIGN-BUILD PROJECTS for project specific requirements.

The Design-Build Team shall engage a Registered Professional Land Surveyor, licensed in the State of Maryland, to determine all lines and elevations for various parts of the Work, as the work progresses:

- a. Verify that the field locations of the established horizontal controls and benchmarks correspond with figures shown on the Design-Build Team's Contract Drawings.
- b. Establish vertical references and axis lines showing elevations and other lines and dimensional reference points as required for the execution of the work.

- c. Field check facilities and surveys thereof as required by the technical sections of the Specifications.
- d. Stake out the limit of disturbance including all wetland areas and tree protection fencing at all Tree Preservation Areas.
- e. Stakeout the existing and proposed Right-of-Way Line, including, but not limited to, fee acquisition, easements, and Lines of Division.
- f. All stakeout performed by Design-Build Team shall be made accessible for the Administration's inspection.

3.19.03 Maintenance of Traffic

All maintenance of traffic work is to comply with the approved traffic control plans, traffic control standards, the MD Manual on Uniform Traffic Control Devices (MD MUTCD), MD Standard Sign Book, and special provisions.

a. Advanced Notice Requirements

The Design-Build Team shall notify the Administration's Engineer in advance of implementing any changes in traffic patterns as per requirements of the Maintenance of Traffic Performance Specification.

b. Schedules/Sequences of Construction

The Design-Build Team shall schedule work phasing and tie-in operations so as not to be working intermittently throughout the area. Schedule and pursue excavation and other construction activities to permit making the connection without unnecessary delays. Perform utility work in conformance with the maintenance of traffic requirements shown on the approved Drawings and/or as indicated in the Standards.

c. Protection of Work

Pursuant to the General Provisions, the Design-Build Team is responsible for protection of the work and safety of the public.

Various mitigation measures may be required as unforeseen conditions develop during construction operations. Potential conditions to consider are: open excavations, the use of decking or plates to close trenches, vibration or other geotechnical monitoring, temporary wedge material to prevent pavement edge drop-off, temporary shielding as both a physical and/or visual barrier, the installation of temporary channelizing devices and/or traffic barriers.

3.19.04 Erosion and Sediment Control

Except as noted below, all work shall be done in accordance with the erosion and sediment control

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(E&S) plans to be prepared by the Design-Build Team and approved by the SWM/ESC Approval Authority.

a. Compliance Requirements

Ensure daily stabilization for land disturbance within any drainage areas adjacent to wetlands and streams in the design and implementation of the ESC plans. Provide resources to provide immediate stabilization for the contract at all times.

Keep an erosion and sediment control manager (ESCM) on site at all times. The sole responsibility of the ESCM will be to ensure compliance with SHA standards and that all measures adhere to the *2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control*. The ESCM must strictly perform E&S related work. Daily erosions and sediment control meetings between the ESCM and MDOT SHA Erosion and Sediment Control (ESC) Inspector will be held to discuss the status of the project and the daily E&S report. Weekly meetings between the ESCM, MDOT SHA E&S Inspector, Independent Environmental Manager and REC will be held to discuss the status of the project and the E&S reports for the week.

At any time, the QA Inspector may request the contractor to disclose the total graded area throughout the project that is not stabilized. The contractor is responsible for providing proof within 48 hours that they are in compliance with the grading unit law.

b. Plan Adjustments and Revisions

Any proposed adjustment or revision must comply with all Federal, State, and local laws, ordinances, and regulations pertaining to environmental protection.

For field adjustment, if there are no changes in ESC sequence and/or Limit of Disturbance, the contractor must submit a request to the MDOT SHA QA toolkit. If approved by the MDOT SHA Quality Assurance (QA) Inspector, as well as the MDOT SHA Project Engineer (PE), minor field adjustments of the sediment control facilities may be made as required to accomplish the intended purpose.

All other adjustments shall follow the process outlined in TC Section 3.05.26.2 for Revisions.

When directed by the Administration's Engineer, the contractor shall be responsible to implement additional erosion and sediment control measures and modifications to the approved erosion and sediment control plan as required by the MDOT SHA QA Inspector to address unforeseen site conditions during design at no additional cost to the Administration.

c. Protection of Existing Waterways and Highways

Debris or trash of any kind, either existing or generated by the project, shall not be allowed to enter Waters of the U.S or onto roadways. This includes, but is not limited to, paint splatters and spillage, wet or dry silica dust, and truck cleanout remnants. Take care to

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prevent damage and/or injury to personnel, vessels, and vehicles using waterways, roadways, or pedestrian ways. Provide devices and maintain as required to prevent such occurrences. Promptly remove any material or items falling in a waterway, on adjacent banks, or on roadways and immediately report to the Engineer and the jurisdictional agency.

d. Fish and Wildlife Resources

Do not alter water flows or otherwise disturb native habitat near or adjacent to the project construction area, unless otherwise stipulated in the project's permits and approved as an authorized action by the appropriate regulatory agencies.

e. Staging Areas

Do not use, in connection with this Contract, for storage, as a staging area, or as a preparation site any cultural resource facility, building, site or cleared area that is, as of the date of this Contract, on or eligible for listing on the National Register of Historic Places (16 U.S.C., paragraph 470a) without prior approval of the Engineer.

For the purpose of the preceding paragraph, the term "cultural resource" includes districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, or culture.

3.19.05 Protection of Existing Utilities

The Design-Build Team (DBT) is alerted to the potential presence of various overhead and underground utilities within the limits of the Maryland Department of Transportation State Highway Administration (MDOT SHA) Right-of-way and within the limits of the construction project. The Design-Build Team shall be responsible for determining the location of all existing utilities and incorporating them into the design prior to initiating construction.

The Design-Build Team shall locate all existing utilities and be responsible for their safety and continuous service. Should any existing utilities be damaged or destroyed due to the operations of the Design-Build Team, the damaged or destroyed components shall be immediately replaced or repaired as necessary to restore the utility to a satisfactory operating condition. These repairs or replacements shall be at no additional expense to the Administration or the owner of the utility.

The Design-Build Team shall inform the respective utility companies at least fourteen days prior to working in any area. In addition, the Design-Build Team shall give sufficient notice to the specific utilities of the Design-Build Team's overall plan for construction.

All notifications to utility companies and "MISS UTILITY", 1.800.257.7777, shall be given 48 hours (two full working days) in advance of working in the area. The notification to "MISS UTILITY" is required whenever any excavating or similar work is to be performed.

The Design-Build Team shall be responsible for all frame and cover adjustments required by the project, either making the adjustment, or reimbursing the utility owner. The Design-Build Team

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shall provide for access to all utility manholes, valves, vaults, poles, and all other above ground utility equipment, both during and after construction. This access shall consist of a firm, ten foot minimum width, route to the equipment, drivable for an AASHTO SU 30 truck. This access shall also consist of a ten foot minimum width by twenty foot minimum length parking area immediately adjacent to the equipment. Both the route and the parking area shall be completely with in State right-of-way, shall have a four percent maximum cross slope, and shall have an eight percent maximum longitudinal slope. Shoulders may be part of these routes and parking areas, but travel lanes shall not be. The Design-Build Team shall design and construct this access so utility company personal and vehicles can safely get to the equipment from public roads, work at the equipment, and safely return to the public road.

If an adjustment is required to facilities, it is necessary that the existing facilities remain in service until the new construction is complete and placed in service. Also, when adjustments are required, establishment of lead times is necessary to meet the applicable utility schedule and coordination with the Design-Build Team's work operation.

Working around or protecting the utilities, removal and disposal of materials from the utilities and cooperation with the owners of the utilities and with other contractors will not be measured but the cost will be included in the Contract Lump Sum Price Proposal.

3.19.07 Engineers Office

The Design-Build Team shall supply one (1) Engineer's Office Type \underline{D} , for use by -Administration personnel, conforming to the requirements of Section 103 of the Standard Specifications.

One phone in the conference room of the Engineer's Office shall have conference call and speakerphone capabilities.

The Design-Build Team shall provide the Administration with two (2) desktop computer, one (1) laptop computers, one (1) digital camera, and two (2) cellular phones, and is described in special provisions in this RFP.

The Design-Build Team shall provide the CPM schedule, as is described in the special provision in this RFP.

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TC 3.20 ENVIRONMENTAL PERFORMANCE SPECIFICATION

3.20.01 General

The Design-Builder shall conduct its design and construction activities in accordance with these specifications such that no action or inaction on the part of the Design-Builder shall result in non-compliance with any requirements of the National Environmental Policy Act (NEPA), Clean Water Act section 404 and 401 authorizations/permits, MDE Nontidal Wetlands and Waterways Permit, floodplain permits, approvals, and all other necessary permits and approvals required by the Project. The Design-Builder shall not contact resource agencies (including but not limited to the US Army Corp of Engineers (USACE), Maryland Department of the Environment (MDE), Maryland Department of Natural Resources (DNR), Maryland State Historic Preservation Office (MD SHPO), US Fish and Wildlife Service (USFWS), US Environmental Protection Agency (EPA)) prior to receiving NTP. During the procurement process, the Design-Builder may utilize readily available online resources to identify potential natural environmental, socio-economic and cultural resources such as MERLIN and the Watershed Resources Registry.

3.20.01.01 Guidelines and References

The Design-Builder shall design and implement Environmental requirements in accordance with this Environmental Performance Specification and the relevant requirements of the Guidelines and References in TC Section 3.08.

3.20.02 NEPA

3.20.02.01 NEPA General

The general status of the NEPA process is that MDOT SHA is working with FHWA to obtain approval of a Minor Programmatic Categorical Exclusion (PCE) with Appendix 2 prior to award of this contract to perform Preliminary Design (PD) activities by the Design-Builder as may be necessary to complete the NEPA process, in compliance with CFR §636.109. The Minor PCE with Appendix 2, will only allow the Design-Builder for performing PD activities only (e.g., agency coordination, permitting activities; and data gathering/initial site assessments such as soil borings/investigations; wetland delineations; cultural resource investigations; utility test pitting/identification; geotechnical investigations; field surveys). The Minor PCE will not authorize/allow Final Design, Final Permit Application, Right-of-way Acquisition or Construction Activities to occur.

With coordination and information provided by the Design-Builder, MDOT SHA will obtain approval of a subsequent NEPA document (e.g., PCE) for each site (or appropriate grouping of sites) the Design-Builder intends to move forward with prior to

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proceeding with final design and construction. No commitment will be made as to any alternative under evaluation in the NEPA process, including the no-build alternative.

Actions that may be classified as PCEs include those listed in 23 CFR 771.117(c) and (d) as per the 2017 Programmatic Agreement between the FHWA - Maryland Division, and MDOT SHA Regarding the Processing of Certain Categorical Exclusion Actions.

It is anticipated that this project will not incur noise or air quality impacts and no noise or air quality analyses are expected. Additionally, it is not anticipated that this project will adversely affect or jeopardize rare, threatened or endangered (RTE) species and/or critical habitat (to be confirmed via written coordination with FWS and DNR).

3.20.02.02 Administration's NEPA Roles and Responsibilities

After award, the Administration will conduct a high-level cultural resources prescreening for all sites provided by the Design-Builder to identify potential "red flags" (e.g., known archeological sites). Upon NTP, the MDOT SHA Environmental Manager will provide the Design-Builder with pre-screening results.

All activities to obtain site specific NEPA approval or any NEPA Reevaluations will be coordinated by the Administration, including Section 106 and Section 4(f) activities, with information provided by the Design-Builder. The Administration will be responsible for obtaining the TIP/STIP No., logging each project into MDOT SHA's System Preservation Database (SPD), and preparing the NEPA documentation (e.g., PCE) based on the information provided by the Design-Builder. The Administration may only submit the NEPA document for approval once all appropriate information has been obtained from the Design-Builder. Any coordination required with the MD SHPO or FHWA to obtain NEPA approval will be conducted by the Administration only. Copies of final NEPA approvals (e.g., Minor PCE with Appendix 2 and subsequent site(s) specific PCEs) will be provided to the Design-Builder and archived in SPD by the Administration. Any mitigations for impacts required by the agencies to obtain NEPA approval shall be provided by the Design-Builder at no additional cost to the Administration or be cause for claim or time extension.

If a site(s) selected by the Design-Builder is found to be too impactful to the environment and/or schedule, the Design-Builder shall be responsible to select alternative site(s) to achieve the number of credit acres the Design-Builder identified in their Price Proposal.

3.20.02.03 Design-Builder's NEPA Responsibilities

The Minor PCE with Appendix 2 only covers investigative PD activities that are located

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within existing MDOT SHA right-of-way with no known cultural resource concerns. For any proposed investigative PD activities outside existing MDOT SHA right-of-way, or within MDOT SHA right-of-way but with potential cultural resource concerns, the Design-Builder must coordinate with the MDOT SHA Environmental Manager to complete Section 106 coordination before proceeding.

For preparation of the site(s) specific NEPA document (e.g., PCE), the Design Builder's NEPA responsibility shall include but is not limited to: providing the project's detailed scope of work and GIS shapefiles of the project site(s) including any and all access and staging areas; concept or PD plans showing worst-case limits of disturbance; preparing project location maps; quantifying potential impacts to floodplain, wetland, stream, trees, critical area, FIDS, green infrastructure, and right-of-way (temporary or permanent easement, fee simple); screening matrix summarizing potential natural environmental and socio-economic impacts to each site(s); determining whether the project contains parkland parcels funded with Land and Water Conservation Funds, Program Open Space and/or Capper Cramton assistance; public involvement (e.g., adjacent property owner notification letters); climate change impact areas; providing copies of all agency coordination/responses to the Administration; and any other work required to complete the project's site specific NEPA document (with the exception of Section 106 and Section 4(f) activities).

The Design-Builder shall coordinate with the MDOT SHA Environmental Manager to obtain a guest log-in and perform coordination directly with DNR's Wildlife and Heritage Service and Environmental Review Program using DNR's online system to obtain information regarding fisheries, instream use, FIDS, and rare, threatened and endangered (RTE) species. The Design-Builder shall also coordinate directly with the FWS using FWS' online IPaC system to obtain information regarding RTE species. Results of all agency coordination shall be immediately provided to the MDOT SHA Environmental Manager upon receipt. In the event RTE species (or their habitat) are identified via coordination with DNR and/or USFWS (or other means), the Design-Builder will be responsible for coordinating any required RTE species searches, surveys and or monitoring with the agency with jurisdiction as well as the MDOT SHA Environmental Manager and Environmental Programs Division representative.

3.20.02.03.01 NEPA Reevaluations

An approved NEPA document (e.g., PCE) will require an Environmental Reevaluation should one or more of the following activities occur:

A. Change in scope or design that affects the limits of disturbance (LOD) (e.g., alignment shifts, staging/access areas);

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- B. Change in surrounding environment;
- C. New information becomes available; and
- D. Changes in applicable laws and regulations.

An Environmental Reevaluation will require the Design-Builder to conduct an updated review of the proposed project for any changes in impacts to the natural environmental and socio-economic resources. The Design-Builder will also be required to submit updated scope of work; plans; GIS shapefiles; screening matrix; and updated agency coordination with DNR and FWS to the Administration. The Design-Builder will provide necessary information to the Administration for the Administration to update any Section 106 and/or Section 4(f) coordination as appropriate.

If it is determined by the Administration that a NEPA Reevaluation document (PCE Reevaluation) is required, the Administration will complete the appropriate documentation once all appropriate information has been provided by the Design-Builder, and submit for approval. Any coordination required with MD SHPO or FHWA to obtain NEPA Reevaluation approval will be conducted by the Administration only. Copies of final NEPA Reevaluation approvals will be provided to the Design-Builder and archived in SPD by the Administration. The PCE Reevaluation approval must be received prior to construction of the affected areas.

Delays due to NEPA Reevaluation approval for design changes, requested by the Design-Builder, shall not result in additional costs to the Administration nor be the basis of a claim or time extensions against the Administration. The step by step process for Reevaluation for scope and/or design change that affects the LOD is described below:

- 1. Design-Builder determines a scope and/or design change is warranted.
- 2. Design-Builder environmental staff conducts a quick review to determine if any additional natural environmental or socio-economic impacts will occur due to the change.
- 3. Design-Builder presents updated scope of work; plans; GIS shapefiles; screening matrix to the MDOT SHA Project Engineer and MDOT SHA Environmental Manager, including any updated narrative and figures. MDOT SHA Project Engineer, in consultation with the MDOT SHA Environmental Manager, denies the change with comments, or conditionally approves the change.

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- 4. MDOT SHA Environmental Manager determines whether any additional specific agency involvement required. If additional agency coordination is required:
 - a. The Design-Builder may be required to update RTE coordination with DNR and FWS (typically takes 30 days to receive responses for DNR and FWS).
 - b. The MDOT SHA Environmental Manager coordinates with the Administration's Cultural Resources section to determine whether there is any additional coordination required for updated Section 106 or Section 4(f) resources. If required, the Administration will obtain an updated MD SHPO response (MDOT SHA mailed within 2-4 weeks of Design- Builder submission containing all required information depending on the extent of the resource, MD SHPO response within 30 days) (additional information is included in PR 13.2.3 Cultural Resources)

Note: The Design-Builder will provide copies of all agency coordination/responses to the MDOT SHA Environmental Manager.

- 5. Design-Builder coordinates with MDOT SHA Environmental Programs Division regarding possible permit modifications (signed and mailed within 1 week of Design-Builder submission)
- 6. MDOT SHA Environmental Manager prepares the NEPA Reevaluation document with appropriate attachments (e.g., updated scope, screening matrix, plans, and updated agency coordination) provided by the Design-Builder.
- 7. Obtain all agency approvals (1 -2 months depending on the complexity of the change)
- 8. MDOT SHA Environmental Manager submits NEPA Reevaluation document for approval (2 weeks)

Note: FHWA/MDOT SHA could request more information before they will approve a NEPA Reevaluation. Supplying the additional information is the responsibility of the Design-Builder at no additional cost to the Administration. The project may not proceed with construction in the affected areas without first

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obtaining NEPA Reevaluation approval.

1 3.20.02.04 - Cultural Resources

The project is located within an area that may contain sensitive archaeological resources and historic structures and districts. As conditions of project approval by FHWA and MD SHPO, the following requirements shall apply:

- A. The Design-Builder shall submit all requested information as specified at 3.20.02.03 for MDOT SHA to complete coordination under Section 106 of the National Historic Preservation Act.
 - B. Should any site or sites selected by the design-builder result in an adverse effect to historic properties, the Design-Builder shall bear all responsibility for cost, schedule, and mitigation for effects to historic properties.
 - C. Unauthorized Project Impacts are prohibited;
 - D. Material changes that result in impact beyond those identified will not be allowed without the prior written consent of the Administration;
 - E. Site locations and/or proposed changes may require investigations, documentation, and submittals needed for these approvals by applicable resource management agencies. This information shall be provided by the Design-Builder at no additional cost to the Administration; and,
 - F. Time and cost implications resulting from design changes that require additional approval shall be solely borne by the Design-Builder.
 - G. The Engineer shall notify the Design-Builder of any proposed design refinements or proposed means and methods requiring additional approval for potential effects to historic and archaeological resources. Approvals are required for changes including but not limited to, limits of disturbance changes, proposed construction staging areas, stormwater management facilities, land transfers, reforestation areas, environmental stewardship activities, or design changes inconsistent with prior environmental documentation. The Administration will notify the Design-Builder of anticipated schedule required to obtain the necessary approval for the design refinement. All time and cost implications resulting from design or proposed means and methods requiring such approval shall be solely borne by the Design-Builder.

1 3.20.02.04.01 Unanticipated Discoveries of Archeological Resources During

Design-Build Activities

In the event that previously unidentified archeological resources, including human remains, are discovered during ground disturbing activities, The Design-Builder shall immediately notify the Administration's Project Engineer, and shall immediately halt construction work involving subsurface disturbance in the area of the archeological resource, minimally defined as a 50-yard radius from the identified discovery. Examples of archaeological resources include, but are not limited to, accumulations of shell, pottery, burned rocks, bone, charcoal, dark soil staining containing artifacts; stone tools or chips; evidence of building foundations; concentrations of tin cans, bottles, or ceramics appearing to be greater than 50 years old; or other unanticipated human-constructed features. The design-builder shall implement the provisions of this section in any situation where there may be reasonable doubt whether a discovery is archaeological. The Administration's Project Engineer shall contact Administration Archeologist Dr. Julie Schablitsky (410-545-8870), Assistant Division Chief of the Environmental Planning Division, who shall notify the MD SHPO and other required parties of the discovery.

The Administration and MD SHPO, or an archeologist approved by them, shall immediately inspect the work site and determine the area and nature of the archeological resource. Following this inspection, the Engineer may release the area to resume construction if the archaeologist determines the discovery does not require additional consultation.

Should the archaeologist determine the resource requires additional consultation, within no more than three working days of the original notification of discovery, the Administration, in conjunction with MD SHPO, shall determine the National Register eligibility of the resource. If the resource is determined eligible for the National Register, the Administration shall prepare a plan for its avoidance, protection, recovery, or destruction without recovery. Such a plan shall be approved by MD SHPO prior to implementation.

Work in the affected area shall not proceed until consultation is complete.

3.20.02.04.02 Human Remains

- A. Should any human remains (hereafter, "Remains") be encountered during construction, all construction work in the vicinity of the Remains shall immediately be halted to prevent damage to the Remains, or to any additional Remains that might be present in the vicinity. The Design-Builder shall immediately notify the Administration's Engineer, who shall coordinate with the MDOT SHA Dr. Julie Schablitsky (410-545-8870).
 - 1. The MDOT SHA archaeologist will inform law enforcement, MD SHPO and other required parties and shall perform a preliminary inspection of the

Remains to evaluate the age and cultural affiliation of the remains.

- 2. If determined archaeological and the Remains cannot be avoided by construction, the MDOT SHA Archaeologist shall consult with MD SHPO and other parties as appropriate on a treatment plan.
- 3. Construction shall be temporarily suspended in the immediate vicinity of the Remains (minimum of 100 feet from the discovery) until the archaeological investigation has been completed, as provided for in the Standard Specifications for Construction and Materials under Section TC-5.04 (Cultural Resources) and Section TC-4.04 (Work Suspension). Construction can and should continue in all other parts of the project area unless additional human remains are discovered.
- 4. If the Administration's Engineer determines that the Remains are located in a part of the project that will affect the critical path of construction, investigations will be limited to the minimum time required to complete necessary investigation, removal, or other treatment.
- 5. Upon completion of implementation of the treatment plan and concurrence from MD SHPO, the MDOT SHA archaeologist will notify the Engineer construction may resume in the area of discovery.

Work in the affected area shall not proceed until the above procedure is complete.

3.20.03 Wetlands and Waterways

3.20.03.01 Administration's Wetlands and Waterways Roles and Responsibilities

The Administration Roles and Responsibilities for Wetlands and Waterways shall be as follows:

- A. Review design submittals, permit submittals and construction activities for compliance with this Request for Proposals
- B. MDOT SHA grants the right to the Design-Builder to design and build the projects on MDOT SHA Right-of-way and submit Joint Permit Applications for the above referenced projects in accordance with the MDOT SHA Contract.
- C. Review design submittals and construction with all conditions of applicable permits and notify the Design-Builder and agencies of deficiencies in the compliance with the commitments, considerations, permits and approvals;
- D. Review the Design-Builder's environmental compliance implementation; and

E. Coordinate and attend any meetings involving resource or regulatory agencies (including the USACE, MDE, DNR, USFWS, and/or EPA) upon request by the Design-Builder or agencies.

3.20.03.02 Design-Builder's Responsibilities

The Design-Builder shall be responsible for obtaining all permit approvals or modifications as the Permittee for permits required for the project for impacts to regulated resources. The Design-Builder shall be responsible for compliance with any permit conditions throughout the design and construction of the Project including but not limited to design, permitting and construction of any mitigations required by the agencies and providing an Independent Environmental Monitor (IEM) on behalf of the USACE and MDE if requested by the agencies. The IEM shall be approved by the USACE and MDE.

The Design-Builder shall achieve and maintain commitments and permits through a strong Environmental Compliance Plan and partnering with the Administration. The Design-Builder shall demonstrate compliance with all permits, permit requirements, approvals and NEPA requirements by producing a Compliance Report each quarter, which tracks and confirms compliance with each commitment pertaining to the construction of each Project, and also tracks impacts to wetlands and Waters of the U.S. The checklist and memorandum shall be submitted to the Administration within one week after the end of each quarter.

Submissions for regulatory agencies must be delivered directly to the regulatory agencies through their submittal process with a copy to the MDOT SHA Project Design Manager provided through Projectwise. The Design-Builder shall submit each Joint Permit Application (JPA) using the template provided on Projectwise. Each JPA shall also include a copy of the letter from the Administration to the USACE and MDE, stating that the Design-Builder is authorized to submit this application.

The Administration and the SWM/ESC approval authority shall be concurrently copied on all correspondence; including comment letters, phone conversation transcripts, transmittals, reports, plans revisions to plans and report, computations, and/or point-bypoint response letters; delivered to a regulatory agencies (including the USACE, MDE, DNR, USFWS, and/or EPA).

Direct impacts to wetlands and waterways are anticipated to occur under the Project. Wetlands and waterways were not identified, delineated or surveyed within the Project

limits. It shall be the Design-Builder's responsibility to identified, delineated and survey wetlands and waterways within the Project limits for each of the Design-Builder's sites. No Jurisdictional Determination (JD) was completed for the project. If a JD is required by the Permitting Agencies, the Design-Builder will be responsible preparation, coordination and final approval of the JD. The Design-Builder shall be responsible for providing all required information to obtain all required permits for impacts to wetlands and waterways and for meeting all requirements of those permits as the Permittee. The Design-Builder shall adhere to any current and ongoing regulatory guidance from the Permitting Agencies.

The Design-Builder can utilized the Administration's Statewide Letter of Authorization (SLOA) for impacts to the 25-foot wetland buffer and the 100-year floodplain as listed in the authorization (15-NT-0287/201561369) provided on Projectwise. The Design-Builder shall adhere to the conditions of the authorization, and shall provide the Administration with the quarterly reporting information for submittal to MDE.

The Design-Builder's Water Resources Engineer shall be the sole contact with the regulatory agencies.

The Design-Builder's shall minimize the number of Wetland and Waterways permit applications to the regulatory agencies while ensuring all permitting requirements are maintained.

The Administration has coordinated with MDE Wetland and Waterways to have an expedited reviewer for the project. It shall be the Design-Builder's responsibility for any submittal to MDE Wetland and Waterways to ensure that the submittal is clearly marked to identify that the MDE reviewer is Mrs. Emily Dolbin. Any failure by the Design-Builder to ensure that their MDE Wetland and Waterways submittals are processed correctly to ensure Mrs. Dolbin is the reviewer and any delays as a result shall be at no additional cost to the Administration or be cause for any contract claims or time extensions.

It is not the responsibility of, nor guaranteed by, the Administration that approval or authorization of the proposed Project will be granted by the USACE and MDE. Delays due to permit approvals, requested by the Design-Builder, will not result in additional costs to the Administration nor will the Contract be extended.

Permits must be approved by the USACE and MDE prior to initiation of construction for the affected site. Supplying information to the resource and permitting agencies is the responsibility of the Design-Builder and shall be at no additional cost to the Administration.

If a site(s) selected by the Design-Builder is found to be too impactful to the environment and/or schedule, the Design-Builder shall be responsible to select alternative site(s) to achieve the number of credit acres the Design-Builder identified in their Price Proposal.

3.20.03.03 – Wetlands and Waterways Coordination

Coordination for wetlands and waterways permitting and coordination with the MDE wetlands and waterways Expedited Reviewer shall include the below requirements:

- 1. A Permitting coordination meeting shall be held once the notice of selection has been made, and prior to meeting with the SWM/ESC approval authority. This meeting will be scheduled by the Administration, upon request by the Design-Builder, and will include the Design-Builder's Project Design Manager, Construction Manager, erosion and sediment control lead, stormwater design lead, wetlands and waterways permitting lead, as well as, the Administration's Environmental Programs Project Coordinator, Design Project Manager, Environmental Planning Project Coordinator, Highway Hydraulics Project Coordinator, USACE, MDE and others as needed. The purpose of the meeting is to discuss the Design-Builder's Design Builder's approach to wetlands and waterways permitting including avoidance and minimization during design of the project.
- 2. Monthly meetings with the Administration, Design-Builder, USACE and MDE shall be required to discuss design elements related to wetlands and waterways permits. This meeting will be scheduled by the Administration and attendees shall be identified by the Administration and the Design-Builder. The USFWS, and MD DNR and other permitting agencies shall be invited to attend as needed. Meetings can be reduced at the discretion of the USACE and MDE.
- 3. The Design-Builder shall coordinate with MDE about how many JPAs will be submitted, and if bundling certain project sites together in a JPA is appropriate prior to submittal of JPAs and it shall be discussed at each monthly meeting.
- 4. The Design-Builder shall maintain a Permitting schedule that shall clearly show the Design-Builder's planned submittal for all permitting and it shall be presented at each monthly meeting.
- 5. The Design-Builder shall provide two weeks advance notice to MDE and the USACE for each JPA submittal.

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- 6. No discharge or indirect impacts to wetlands or waterways is permissible without required permits.
- 7. No work in wetlands, wetland buffers, waterways, or the 100-year floodplain shall occur without required permits.
- 8. A Pre-Application meeting with the Administration, Design-Builder, USACE and MDE shall be required. This meeting will be scheduled by the Administration, upon request by the Design-Builder.

3.20.03.01.06 – Modifications

Once the Design Builder has obtained JPA approval, the Design-Builder shall not alter the design in such a manner that increases or creates new impacts to wetland, wetland buffer, waterway, or floodplain compared to those impacts that are authorized by the permits and as originally defined in their Joint Permit Application submittal impact plates and tables. If the Design-Builder determines that changes to impacts are to be considered through design and/or construction, the Design-Builder shall be responsible for obtain the permits, approvals or modifications from the regulatory agencies. In addition to changes in impacts, requests for waivers to conduct instream work during the time-of-year restriction require permit modifications. Changes to the scope of work within regulated resources may also require a permit modification. The Design-Builder shall obtain concurrence from the Administration for any changes in design and/or construction activities that affect any permit conditions and would require a modification and approval from the regulatory agencies prior to the Design-Builder applying for a modification. Requests for modifications to the permits listed shall be accompanied by documentation provided by the Design-Builder to demonstrate that there is no practical alternative. The Design-Builder shall be responsible for addressing any comments or issues the regulatory agencies and/or the Administration may have, including those pertaining to avoidance and minimization measures. Any modification shall be accepted by the Administration prior to the modification being forward to the regulatory agencies for approval. Any revisions shall be completed in a timely fashion and shall be at no additional charge to the Administration.

The Design-Builder shall not request any modifications of the SLOA.

Additional mitigation required for approval of modifications shall be the responsibility of the Design-Builder and at no cost to the Administration.

All conditions in the permits shall be adhered to unless modifications are accepted and approved by the regulatory agencies.

It is not the responsibility of, nor guaranteed by, the Administration that approval or authorization of the proposed permit modification will be granted by the

USACE and MDE. Delays due to permit modification approval for permits, requested by the Design-Builder, will not result in additional costs to the Administration nor will the Contract be extended.

Permit modifications must be approved by the USACE and MDE prior to initiation of construction for the affected site/submittal package. USACE and MDE could request more information before potential approval of the Permit Modification. Supplying the additional information is the responsibility of the Design-Builder and shall be at no additional cost to the Administration.

3.20.03.01.08 – Wetland and/or Waterway Impact Reduction Incentive

There will be no Wetland and/or Waterway Impact Reduction Incentive on this project.

3.20.03.01.09 - Wetland and/or Waterway Mitigation Incentive

There will be no Wetland and/or Waterway Mitigation Incentive on this project.

3.20.03.02.06 – Wetland and Stream Mitigation Requirements

The Design-Builder is responsible for any required wetland and waters of the U.S. mitigation design and construction. The mitigation shall compensate for impacted wetland acreage and functions, and stream length. The mitigation design shall be in accordance to USACE and MDE mitigation guidance found in TC 3.08 and any additional requirements from USACE and MDE.

Any wetland and waters of the U.S. mitigation proposed by the Design-builder shall not place undue burden on the Administration and must be approved by both the Administrations and the agencies. Determination of undue burden shall be at the sole discretion of the Administration. Approval of any mitigation by the Administration shall not constitute acceptance by the agencies. Finding of undue burden by the Administration shall not be cause for any contract claims or time extensions.

The Design-Builder shall design any wetland and waters of the U.S. mitigation capable of providing functional-uplift in relation to the existing conditions of the impacted waters of the U.S. and wetlands. The restoration shall use natural materials, native species and utilize on-site materials to the greatest extent possible and practicable. Erosion control materials used for permanent stabilization of the site shall not contain synthetic materials.

The Administration may require corrective action to any wetland and stream mitigation site to ensure the mitigation site functions as intended and per USACE and MDE authorization conditions.

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The Administration shall be responsible for completing any required monitoring of the wetland and stream mitigation site.

If the agencies allow use of the Nontidal Wetlands Compensation Fund (Fund), or an Approved Mitigation Bank (Bank), the Design-Builder is responsible for paying into the Fund or Bank with no cost to the Administration. Payment into the Fund or Bank is required prior to permit authorization.

The Design-Builder shall be responsible for preparing as-built as discussed in TC 1 3.05.26.2.2 As-Built Drawings for Administration Approval.

3.20.03.02.07 – Construction Practices

Prior to performing any work on the Project, the Design-Builder shall install temporary orange safety fence and fabricate and install prohibitive signage in English and Spanish adjacent to non-impacted areas of wetlands and their buffers as identified in the MDE Nontidal Wetlands & Waterways and USACE Section 404 Permits for the Project along the limits of disturbance and/or right of way. The signage dimensions and text shall be per the "Wetland Prohibitive Signage Detail" provided as part of the Additional Information on ProjectWise. The orange safety fence shall be installed at a maximum of 25 feet from the proposed toe of cut/fill adjacent to wetlands, and the Administration, USACE, and MDE shall concur/approve of the locations. The wetland fencing locations should be staked prior to the pre-construction meeting. All personnel of the Design-Builder or subcontractors shall be alerted to these designated protection areas.

3.20.03.02.07.01 – Occupying Wetlands/Waterways and Best Management Practices for Work in Nontidal Wetlands, Wetland Buffers, Waterways, and 100-Year Floodplains

See Contract Provisions CP – Occupying Wetlands.

3.20.03.02.07.02 – Best Management Practices for Work in Nontidal Wetlands, Wetland Buffers, Waterways, and 100-Year Floodplains

The Design-Builder shall follow the Best Management Practices for work in nontidal wetlands, wetland buffers, waterways, and 100-year floodplains:

- A. The Design-Builder shall not stockpile or store excess fill, construction material, equipment nor debris in un-permitted nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- B. The Design-Builder shall not place materials in a location and manner, which adversely impacts surface or subsurface water flow into or out of nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.

- C. The Design-Builder shall not use excavated material as backfill if it contains waste metal products, unsightly debris, toxic material, or any other deleterious substance. If additional backfill is required, the Design-Builder shall use clean materials that are free of waste metal products, debris, toxic material, asphalt, or any other deleterious substance.
- D. The Design-Builder shall not operate heavy equipment in a manner that will damage un-permitted nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- E. The Design-Builder shall repair and maintain any serviceable structure or fill so there is no permanent loss of nontidal wetlands, nontidal wetland buffers, or waterways, or permanent modification of the 100-year floodplain in excess of that lost under the originally permitted structure or fill.
- F. The Design-Builder shall restore any nontidal wetlands, wetland buffers, waterways, or 100-year floodplain temporarily impacted by any construction to the full satisfaction of the Administration, regulatory agencies, and in accordance with the requirements of the USACE and MDE permits.
- G. The Design-Builder shall use the following species for all stabilization in the nontidal wetland and nontidal wetland buffer: annual ryegrass (Lolium multiflorum), millet (Setaria italica), barley (Hordeum sp.), and/or oats (Uniola sp.). Other non-persistent vegetation may be acceptable, but must be approved by the Administration and MDE Nontidal Wetlands and Waterways Division. Kentucky 31 fescue shall not be utilized in wetland or buffer areas. Areas shall be seeded and mulched to control erosion after construction activities have been completed.
- H. The Design-Builder shall make post construction grades and elevations the same as original grades and elevations in temporarily impacted areas after construction has been completed.
- I. The Design-Builder shall protect aquatic species. In-stream work is determined by the classification of the stream and the time of year restrictions specified in the MDE Water Quality Certification.
- J. The Design-Builder shall control stormwater runoff from impervious surfaces to prevent washing of debris into the waterway
- K. The Design-Builder shall construct culverts and place any riprap so as not to obstruct the movement of aquatic species.
- L. The Design Builder shall use disposal areas for excess excavation that do not impact wetlands or waterways. The Design-Builder shall track the disposal of all excess excavation to insure that there is no unauthorized discharge of fill in

regulated wetlands or waterways and shall notify the Administration of the intended disposal site location for excess excavation or rubble waste removed from the project.

3.20.03.02.08 Loss of Wetland Hydrology

Within one year of the completion of the construction project, an inspection will be conducted by the Administration and the regulatory agencies to determine whether any temporarily impacted wetlands have altered their hydrology. If it is determined that temporarily impacted wetlands are no longer functioning as a regulated wetland, the Design-Builder shall be responsible for costs associated with the additional mitigation required. Mitigation ratios for the lost wetlands shall be in accordance with COMAR.

3.20.03.02.09 Closeout of Wetlands and Waterways Permitting

When the Contractor has completed all sites under each authorization/permit received, the sites have been accepted for maintenance by the Administration in conformance with the provisions of GP-5.13 (Acceptance for Maintenance), and upon approval in writing from the Administration, the Design-builder shall obtain a permit modification from the regulatory agencies to modify the Permittee for that authorization/permit to the Maryland Department of Transpiration State Highway Administration.

The Design-Builder shall also submit any required closeout form to the USACE in accordance with the Permit. The Design-Builder shall submit electronic copies of all materials.

3.20.04 Forest and Plantings

Reforestation work shall include the performance of all required and applicable Maryland Reforestation Law associated with the Project.

3.20.04.01 Forest Avoidance and Minimization

Direct impacts to forest are anticipated to occur under the Project. Surveyed boundaries of forests are depicted.

Prior to performing any Work, the Design-Builder shall be responsible for performing all tree preservation measures in accordance with Section 120-Tree Preservation of the Standard Specifications for Construction and Materials.

As the design advances, it may be found that specimen trees are located near the outer edge of the required LOD/ROW or just outside the LOD/ROW. If this condition exists, the Design-Builder shall coordinate with the Administration to mark and provide a buffer for any such tree to avoid its removal during clearing and grubbing

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activities. An adequate buffer is defined as the critical root zone (drip line). Critical Root Zones for individual significant or specimen trees, as defined by the Maryland Department of Natural Resources: Measured from the center of the tree's trunk; 1.5 foot of radius per inch of DBH (Diameter at Breast Height).

Every reasonable effort shall be made by the Design-Builder to minimize the cutting or clearing of trees. Only the minimum number of trees may be cut, and sound design practices shall be utilized.

3.20.04.02 Forest Impact Reduction Incentive

There will be no Forest Impact Reduction Incentive on this project.

3.20.04.03 Forest Mitigation Incentive

There will be no Forest Mitigation Incentive on this project.

3.20.05 Hazardous Materials

- A. The Design-Builder shall prepare and implement a plan for management and disposal of controlled hazardous materials and contaminated soil and groundwater that may be encountered during structure demolition, land clearing, or excavation activities.
- B. The plan shall address worker safety and health in accordance with applicable federal, state, and local regulations.
- C. The plan shall provide procedures for management, handling, transportation, and disposal of demolition debris and contaminated soils and groundwater that contain controlled hazardous substances in accordance with applicable federal, state, and local regulations.

3.20.06 Tracking of Sediment

The Design-Builder shall implement means to reduce tracking of sediment such as:

- A. Elongated and widened stabilized construction entrances;
- B. Use of wash racks;
- C. Use of street cleaning equipment;
- D. Increased maintenance of entrances; and
- E. On-site concrete wash-out pits in proximity to all major pour sites.

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3.20.07 TMDL Credit Determination and Deliverables

3.20.07.01 SWM TMDL Credit Determination

TMDL credit for SWM sites shall be determined based on the procedures documented in the August 2014 MDE publication "Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated" provided on ProjectWise. Baseline information has been provided in the Site Specific Information in the additional information on ProjectWise. If there is no baseline information provided for a site, it shall be the Design-Builder's responsibility to calculate that information per the procedures in the "Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated" and MDOT SHA's Existing Stormwater Control Structures Water Quality Treatment Determination . This calculated baseline information shall be submitted to the Administration for review and approval with all applicable backup information required prior to the Design-Builder starting their final design.

3.20.07.02 Outfall and Stream Restoration TMDL Credit Determination

TMDL credit for Outfall and Stream Restoration sites shall be determined based on either the procedures documented in the August 2014 MDE publication "Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated" or the MDOT SHA's "Alternative Headwater Channel and Outfall Crediting Protocol" guidelines to determine TMDL credit for outfall and stream restoration. MDE has approved MDOT SHA's "Alternative Headwater Channel and Outfall Crediting Protocol" for quantifying the amount of prevented sediment loss in order to determine load reductions and an equivalent amount of impervious area treatment. If the Design-Builder utilize the MDOT SHA's "Alternative Headwater Channel and Outfall Crediting Protocol" it shall be the Design-Builder's responsibility to obtain all additional information required at no additional cost to the Administration. Outfall and Stream Restoration sites must adhere to qualifying condition requirements set forth in the "Recommendations of the Expert Panel to Define Removal Rates for Individual Stream Restoration Projects" (Schueler and Stack, 2014).

3.20.07.03 TMDL Credit Deliverables

The Design-Builder shall provide the Administration the required information as outlined in the information provided in the TMDL Crediting Information area on ProjectWise.

3.20.08 Stormwater Management As-Built Certification Warranty Bond and Liability Insurance

The Design-Builder shall furnish a Stormwater Management (SWM) As-Built Certification Warranty Bond equal to ten (10) percent of the TMDL Credit Construction Lumps Sum established in Proposer's Price Proposal prior to the date of acceptance of the Construction phase of the project by the Administration. This Warranty Bond shall be for the entire period required for the Design-Builder to receive all SWM As-Built certifications for all SWM sites apart of this project and shall be in addition to any construction performance bond requirement.

Furnish proof of, and maintain, liability insurance as specified in TC-5.01 for all Design-Builder authorized operations, persons and equipment for the warranty period.

Satisfy the following criteria to be released from responsibility for Stormwater Management As-Built Certification Warranty Bond and Liability Insurance:

- (1) Conform to the performance requirements as noted under the Warranty Work at the completion of the warranty period; and
- (2) Satisfy warranty work requirements, performance bond, liability insurance, and incidentals at no additional cost to the Administration.

3.20.08.01 Warranty Work

- (1) The Administration and Approving Authority. The Administration and Approving Authority will identify all work that does not conform to the performance criteria and notify the Contractor in writing of any work required to receive SWM As-Built certifications for each SWM sites apart of this project.
- (2) The Design-Builder. The Design-Builder shall perform all required design and/or construct to correct all deficient design and/or construction work in accordance with the requirements of this Request for Proposals. This warranty bond shall be held until all corrective work is satisfactorily completed and all SWM As-Built certifications for all SWM sites apart of this project have been received.

The Administration shall be given at least two weeks notification before the Design-Builder begins any corrective construction work. No notification is required to begin any

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corrective design work. The Design-Builder shall provide the Engineer safe access to all areas being repaired for full inspection of all operations.

The Contractor shall maintain traffic (vehicular, pedestrian, marine, etc.) throughout this work as specified in this RFP at no additional cost to the Administration.

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TC 3.21 PUBLIC OUTREACH PERFORMANCE SPECIFICATION

3.21.01 General

This Performance Specification outlines the requirements for Public Outreach (PO) and defines the roles and responsibilities for this effort.

The PO program includes Administration and Design-Builder activities, including the following:

- A. Public Outreach;
- B. Community involvement and meetings;
- C. Communications with the public;
- D. Public notices;
- E. Media relations; and
- F. Maintenance of Traffic (MOT) plan.

The residents, businesses, elected officials, communities, motorists, and other interest groups within the project area shall be kept informed and their engagement in the construction process is critical to the successful completion of the Project. In support of the Administration, the Design-Builder shall commit to significant assistance of the Administration with regard to community participation and interaction activities during the development of the design and throughout the construction of the Project.

3.21.02 Guidelines and References

The Work shall be in accordance with this Public Outreach Specification.

3.21.03 Requirements

The community involvement and participation element is intended to carry forward the dialogue with residents, landowners, community groups, local officials, and other similar groups. This effort shall include activities such as, but not limited to, the Design-Builder supporting the Administration in meetings with individual land owners, local officials, and community groups and public meetings to keep the public involved in design and construction activities.

Public Outreach is intended to keep the public informed of major activities and decisions through design and construction. This element will involve the preparation and distribution of Project information to the assigned Administration representative for further dissemination to the public and media.

The Design-Builder shall make a good faith effort to address any concerns the public may have, and take under consideration any suggestions or wishes they express if those suggestions are reasonable in regard to cost, time, and construction effort. Documentation shall be in the form of meeting minutes and correspondence, including e-mails. The Design-Builder shall direct requests

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it receives to the Administration and shall assist in preparing responses. All design or construction modifications are subject to written acceptance by the Administration.

3.21.03.01 Administration Public Outreach Responsibilities

The Administration and the Design-Builder have shared responsibility for the PO Program. The Administration will be the lead on Public Outreach activities, with active support provided by the Design-Builder, to include project research, adequate support staff, graphic design, materials, and printing.

The Design-Builder shall have primary responsibility for performing the activities specified in this Public Outreach Specification as was well as in the Contract Documents.

The Administration's responsibilities include the following activities:

- A. Maintain Questions & Answers/Frequently Asked Questions of any approved communication efforts by the Design-Builder; and
- B. Liaising with and monitoring the Design-Builder's performance for compliance with the Contract's public outreach requirements.

3.21.03.02 Design-Builder Responsibilities and Requirements

3.21.03.02.01 Design-Builder's Response to Inquiries and Comments

- A. Questions or comments from residents, businesses, or other member of the public shall be referred to the Administration within 4 hours. The Design-Builder shall take necessary steps to facilitate such contact.
- B. If Design-Builder receives a complaint regarding its conduct of work on the Project, the Design-Builder shall notify Administration within 4 hours. The Design-Builder shall provide necessary information, staff support, and representation to assist in resolving the issue.
- C. If Design-Builder receives a complaint regarding flooding, erosion, water quality, or any other drainage or environmental concern, the Design-Builder shall notify the Administration's Highway Hydraulics Division within 4 hours. The Design-Builder shall provide necessary information, staff support, and representation to assist in resolving the issue.
- D. On occasions specified by the Administration, the Design-Builder shall commit its Project Manager to serve as a spokesperson for the Project for technical and safety issues with certain audiences.

3.21.03.02.02 Public Notifications

A. The Design-Builder shall facilitate the Administration's notification of the public and community in general and specifically affected businesses and residents along the Project. As directed by the Administration, this may include personal contact to affected parties of construction progress and upcoming events.

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- B. The Design-Builder shall provide the specific notifications listed in Table 1.
- C. Utility shut-off/diversion announcements shall be coordinated in advance with the Administration and the utility company. The Design-Builder shall prepare a written notice to the affected parties.

NOTIFICATIONS	
Notice	Requirement
Lane Closure	Written notices posted at least 7 days in advance of planned closures at start and end of Project and at intermediate intersections/junction with United States (US), state, or county highways and roads. Notice provided to Refer to Maintenance of Traffic Performance Specifications.
Critical Utility Shut- off/Diversion	Written notice at least 72 hours in advance of, but not more than 96 hours before, shut-off and/or diversions. Copy of notice to Administration and Utility Company.
Business/Commercial Utility Shutdown	Written notification of Utility shutdown or diversion for businesses and commercial property at least 72 hours in advance of shut-down. Notice shall be coordinated in advance with Administration and Utility Company.
Residential Utility Shutdown	Written notification of Utility shutdown or diversion for residential property 72 hours in advance of shut-down. Notice shall be coordinated in advance with Administration and Utility Company.
Weekly Construction Updates	Construction updates shall be provided weekly and shall identify all Planned traffic shifts, lane closures and utility shut-downs and activities.
Road and Driveway Closures	Written notice and personal contact at least 72-hours in advance of closure. Copy of notice to Administration. Refer to Maintenance of Traffic Performance Specifications

TABLE 1

3.21.03.02.03 Public Contact Records

The Design-Builder shall maintain a consistent system for documenting all contact with business owners, residents, media and property owners. Unless otherwise directed, the Design-Builder should not act as spokesman for the Project. The Design-Builder shall provide Administration an electronic copy of all public contact records. File should be received by the 1st of each month and should include all contacts made prior to the 25th of the previous month.

3.21.03.02.04 Construction Schedule/Maintenance of Traffic and Access

Information regarding Project design and construction shall be readily available in a form that can be quickly disseminated to the public. Information provided to the public shall be consistent with information contained in the Baseline Progress Schedule, schedule updates, and the applicable Maintenance of Traffic Plan.

3.21.03.02.05 Signage

The Design-Builder shall install signs throughout the Project to be placed at the start and end of the Project, at intersections with County and State highways, at Design-Builder's main office (if along the Project alignment), and at all field

offices. The signs shall identify the Administration by its MDOT SHA official logo and show the name of the Project, the Project hotline number, and the Project Web site address is applicable. Signs and lettering shall be sized appropriate for the speed limit in the area using MUTCD size guidelines.

3.21.03.02.06 Telephone Trees

The Design-Builder shall establish and manage an emergency response telephone tree. All appropriate emergency response agencies shall be included on this telephone tree for immediate response in the event of an emergency. The telephone tree shall be divided into areas of expertise so the proper people are called for specific emergency situations.

3.21.03.02.07 Public Forums

At the specific request of the Administration, the Design-Builder shall participate in Administration organized public forums to give the public the opportunity to discuss the Project.

The Design-Builder should also work with the Administration to provide all graphics and printed materials for these forums.

3.21.03.02.08 Construction Progress Photographs

The Design-Builder shall provide to the Administration high-resolution construction progress photographs in electronic format at least monthly or at any time that a new significant activity commences. Monthly submission should include at a minimum of 10 (ten) new progress photos. In addition, the Design-Builder will facilitate requests and make arrangements for the Administration to take additional photos on an as-requested basis. Distinct from progress documentation photos, the purpose of photos identified in this section is to facilitate public information via the Project Web site, newsletters and other such materials.

3.21.03.03 Other Design-Builder Activities

The Design-Builder is encouraged to provide additional, cost-effective services to enhance the overall Public Outreach Community Relations Program. Additional services should adhere to the standards indicated in the Public Outreach Plan and be a supplement to the services outlined in this Performance Specification. Any such enhancements may be implemented at any time during the Project and subject to Administration's written acceptance.

These activities may include part of the federal Transportation Management Plan guidelines to draft a Public Information & Outreach plan for the project, which shall include:

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- Standard language for constituent response (i.e. correspondence, phone inquiries, memos, etc.) in accordance with the Administration's guidelines.
- Creation/printing of overall project brochure and supporting materials
- Creation/printing of community updates for distribution
- Development of community contacts list
- Educating the public on work zone safety

3.21.03.04 Media Relations

An ongoing media relations effort will be handled by the Administration. The Design-Builder shall assist in providing timely information to the Administration regarding construction activities for use in media events.

NEITHER THE DESIGN-BUILDER NOR ANY SUBCONTRACTOR NOR THEIR EMPLOYEES SHALL INTERFACE WITH THE MEDIA WITHOUT THE EXPRESSED CONSENT OF THE ADMINISTRATION, EXCEPT AS SPECIFICALLY DIRECTED BY THE ADMINISTRATION. IN EMERGENCY SITUATIONS, THE DESIGN-BUILDER SHALL IMMEDIATELY NOTIFY THE ADMINISTRATION OF ANY SITUATIONS THAT MAY INVOLVE THE MEDIA.

TC 3.22 TOPOGRAPHIC SURVEY PERFORMANCE SPECIFICATION

3.22.01 General

The Design-Builder shall obtain all necessary material from Maryland Department of Transportation State Highway Administration's (MDOT SHA) prior to starting work on the project. This includes, but is not limited to, published MDOT SHA CADD standards, publications, guidelines, procedures, formats, codes, attributes, seed files, resources files, preference files, etc. Appropriate MDOT SHA project account numbers and Projectwise access (for appropriate projects) also will be provided for the projects assigned to the Design Builder. The Design-Builder shall adhere to the MDOT SHA Plats and Surveys Divisions policies for performing topographic, or other, surveys with regards to procedures, formats, codes, attributes to be used during the collection and processing of the topographic features.

3.22.01.01 Guidelines and References

All work will be performed in accordance with the latest laws, ordinances, and all policies of Federal, State and local governments. All work will conform to specifications set forth in the MDOT SHA's "Specification for Consulting Engineers' Services" Volume II, dated April 1986, Section VII - Part I. All Surveys shall follow proper safety procedures outlined in the "Safety Manual for Field Survey Personnel", dated July 2003, and any revisions thereto as well as any field safety and/or operations directives which may be issued. In addition, the MDOT SHA has developed certain note taking formats for conventional data collection and GPS surveys. Samples of the various types of survey notes will be provided to the Design-Builder upon the award of the contract.

3.22.02 Requirements

- A. Traverse adjustment All traverse set by the Design-Builder shall be adjusted by either the least squares method or the compass closure method and must adhere to "Minimum Standards of Practice for Professional Land Surveyors" as dictated by the Annotated code of Maryland (COMAR) and the American Land Title Association (ALTA). Elevations obtained by differential leveling from valid bench marks must be applied to each traverse point used in the collection of survey data.
- B. Editing Copies of all field observation files may be compiled for editing or edited singularly as directed by the Design-Builder's pertinent field personnel and/or processing technician(s). However, no original observation files may be edited. These must remain as observed by the survey crew. PSD currently uses TDS Survey Pro software and has developed and will make available an editor for TDS '.raw' and '.rw5' files which may assist any firm utilizing this software.

NOTE: Final editing does not have to be made here. Final editing may be made interactively and reflected in the final fieldbook (.fwd) file

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- C. Processing and map production The Design-Builder shall complete the processing of the edited field observation data using Microstation V8 and InRoads V8 creating the various mapping design (.dgn) files and the digital terrain modeling (.dtm) file(s) defined among the deliverable products as detailed under section "3.22.03.F. Deliverables".
- D. File naming The Design-Builder shall adhere to the MDOT SHA CADD standard file name convention for all electronically delivered files.

NOTE: Each correct file name format is depicted adjacent to the required file shown below in section "3.22.03.F. Deliverables".

- E. Deliverables-The Design-Builder shall deliver the following to Maryland State Highway Administration's Plats and Survey Division (MDSHA PSD) upon completion of the topographic survey. Once these items have been received by MDSHA PSD the Design-Builder team shall continue with the design of the project:
 - i. Any/all survey field books used for and/or depicting new work pertaining to the subject project.
 - ii. Any/all (originals or copies) plan sheets, sketches, documentation, etc. supplied to the Design-Builder by PSD to assist in the collection or processing of the survey task.
 - Original (or copies of the original) daily collection survey field "Set-up" sheets, notes, sketches or any hard copy means of recording set-up data.
 NOTE: Some form of this data is required.
 - iv. Electronic copy of 3D Microstation design (.dgn) file(s) of all planimetric features (filename mTO-S000_RTE#.dgn). Separate file(s) must be created for bridge deck(s) and appurtenances (filename mTO-B000_RTE#.dgn). NOTE: No annotation labeling is to be placed in this file (see v below).
 - v. Electronic copy of 3D Microstaion design (.dgn) file(s) of all annotation labeling of the planimetric features (filename mTX-0000_RTE#.dgn). This file is to be used as a reference file relative to the planimetric file. Separate file(s) must be created for bridge deck(s) and appurtenance annotation labeling (filename mTX-B000_RTE#.dgn).
 - vi. Electronic copy of 3D Microstation design (.dgn) file(s) of all contour lines depicting minor contours at intervals of 1 foot, and major contours with labels at intervals of 5 feet (filename mGR-E000_RTE#.dgn).
 - vii. Electronic copy of 3D Microstation design (.dgn) file(s) of all plane surface network triangles (filename mTR-E000_RTE#.dgn).

- viii. Electronic copy of the InRoads V8 generated digital terrain model (.dtm) file(s) generated during processing (filename 01RTE#.dtm)
- ix. Electronic copy of the InRoads V8 generated fieldbook (.fwd) file. This should be the final completely edited version of the mapping data (filename 01RTE#.fwd).
- x. Electronic file in MDSHA CADD standard format of the coordinate dump (.dmp) file(s) of all data collection surveyed points (filename 01RTE#.dmp).
- xi. Electronic file in the appropriate data collection software format of the traverse observation file (filename 01RTE#.software extension).
- xii. Electronic copy of the traverse adjustment report file (filename book#ppg#.prt EX: 23456p78.prt).
- xiii. Electronic file of the traverse coordinate dump file.
 NOTE: This file is to be a separate file from the above mentioned coordinate dump (.dmp) file and is to have an extension of '.dat'(filename book#ppg#.dat EX: 23456p78.dat) or is to be in TDS .rw5 format and file name ending '*dat.rw5' (filename book#ppg#dat.rw5 EX: 23456p78dat.rw5)'
- xiv. Electronic files in the appropriate data collection software format of all field observation files (filename Trte#date.software extention for topo files and Brte#date.software extention for bridge files).

EX: A topo data collection task utilizing TDS Survey Pro software on MD348 with a date of survey being January 22 would appear thus TM3480122.rw5. A data collection of a bridge deck on the same project and same day would appear BM3480122.rw5

 xv. Wetland delineation location (if applicable) will require an electronic copy of 3D Microstation design (.dgn) file(s) of the designated wetland boundary and/or the designated Waters of the United States boundary (filename – mEF-C000_RTE#.dgn).

TC 3.23 RIGHT-OF-WAY ACQUISITION PERFORMANCE SPECIFICATION

3.23.01 General

This Performance Specification sets forth the Right-of-Way (ROW) activities assigned to the Design Builder, including pre-acquisition and acquisition activities, and designates which ROW activities Maryland Department of Transportation State Highway Administration (MDOT SHA) will conduct. The acquisition of all ROW is the responsibility of Design Builder and all costs and expenses associated therewith are to be included in the Lump Sum for ROW Acquisition. The only exception is that MDOT SHA will pay any difference between the Design Builder's estimate of just compensation approved by MDOT SHA and the actual amount of just compensation agreed to by the parties or awarded by a judge or jury.

This section also sets forth the requirements applicable to the Work assigned to the Design-Builder related to the acquisition of Project ROW. The Design Builder shall provide all services necessary to acquire title to the Project ROW, in form and substance acceptable to MDOT SHA, in the name of the State; perform relocation assistance of displaces from improvements acquired for the Project, if necessary; and conduct clearance/demolition of the improvements from the Project ROW, as more fully described in the following subsections.

3.23.02 Administrative Requirements

3.23.02.01 Standards

The Design Builder shall acquire all Project ROW (including but not limited to interests in fee simple, perpetual easements, temporary easements, and access controls) in accordance with applicable State and Federal Laws and policies, including but not limited to:

- a. Federal Law
 - 1. United State Constitution, including the 5th and 14th Amendments
 - 2. Public Law 91-646, Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, (Uniform Act)
 - 3. Title 49 (Transportation) CFR Part 24 (Uniform Relocation Assistance and Real Property Acquisition Policies for Federal and Federally Assisted Programs).
 - 4. Title 23 (Highways) CFR Part 710 (Right-of-Way and Real Estate) regulations
 - 5. Real Estate Acquisition Guide for Local Public Agencies <u>https://www.fhwa.dot.gov/real_estate/local_public_agencies/lpa_g</u> <u>uide/</u>
 - 6. Your Rights and Benefits as a Displaced Person under the Federal Relocation Assistance Program

https://www.fhwa.dot.gov/real_estate/publications/your_rights/

- b. Maryland Law
 - 1. Maryland Constitution, including Article III, Section 40 and 40B
 - Transportation Article of Maryland Annotated Code, including Title
 8 Subtitle 3, Part III ("Quick Take" Condemnation by Commission

 Board of Property Review Procedure) and Part IV ("Quick Take" Condemnation by Commission Accelerated Procedure)
 - 3. Real Property Article of Maryland Annotated Code, including Title 12, Eminent Domain
 - 4. Maryland Rules, Title 12 Chapter 200, Condemnation
- c. Appraisal Standards
 - 1. Uniform Appraisal Standards For Federal Land Acquisitions (Yellow Book) <u>https://www.justice.gov/sites/default/files/enrd/legacy/2015/04/13/</u> <u>Uniform-Appraisal-Standards.pdf</u>
 - 2. Uniform Standards of Professional Appraisal Practice (USPAP).
- d. Other Such sections of internal manuals and internal operating procedures designated by MDOT SHA Office of Real Estate.

Pursuant to the applicable State and Federal laws and policies, the Design Builder shall acquire ROW for the Project on behalf of the State, but without the direct participation of SHA, subject to MDOT SHA's rights of review, approval, and audit enumerated in this Performance Specification or required by applicable law.

3.23.02.02 Office of Real Estate Management System

The Design Builder must supply and maintain parcel-by-parcel status information that incorporates the fields and information required by MDOT SHA's Office of Real Estate Management System (OREMS). The OREMS database shall be fully accessible to and updated by such agents and representatives of the Design Builder authorized by MDOT SHA.

3.23.02.03 ROW Acquisition Plan

The Design Builder shall prepare a ROW Acquisition Plan. The ROW Acquisition Plan shall set forth Design Builder's organization including names, titles and qualifications of Key Personnel and other Project ROW personnel, integration of the Project ROW schedule into the Project Schedule, interface between design and Project ROW activities, documentation and reporting, quality control procedures and quality review standards.

The ROW Acquisition Plan shall contain, as a minimum, the following:

a) The name of title company(ies) providing title related services including the

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issuance of title insurance that may be required by MDOT SHA ORE.

- b) The name and qualifications of the proposed ROW Acquisition Manager
- c) The resumes and qualifications for appraisers, appraisal reviewers, land planners, relocation agents, real estate attorneys and ROW personnel who shall have the minimum qualifications and experience specified in TC 3.23.02.07 (ROW Personnel Qualifications)

The ROW Acquisition Plan shall establish the specific means by which Design Builder will:

- a) Provide sufficient personnel to achieve, in accordance with the Project Schedule, the goals and milestones established for Project ROW acquisition, relocation assistance, appraisals and appraisal review, and clearance/demolition of the improvements from the Project ROW.
- b) Provide administrative support.
- c) Provide for language, visually impaired, or hearing impaired translation, as necessary.
- d) Provide documentation and reports.
- e) Produce and distribute acquisition and relocation documents as approved by MDOT SHA.
- f) Establish, implement, and maintain quality control procedures and quality review standards for the acquisition for Project ROW.
- g) Prevent fraud, waste, and mismanagement.
- h) Provide / perform each of the specific major acquisition activities enumerated in Section 3.23.02.06 (Acquisition Process Summary).

The Design Builder shall update the ROW Acquisition Plan regularly, at least quarterly, in accordance with the Contract Documents.

3.23.02.04 Schedule and Review Procedures

The schedule should allow for Environmental Approval for each parcel as outlined in TC Section 3.20, per the National Environmental Policy Act (NEPA), prior to beginning the acquisition process. The Project Schedule shall indicate the date to begin the acquisition of the Project ROW and the anticipated completion date of acquisition activities for each parcel. The Project Schedule shall identify each parcel outside of existing right-of-way

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from which any permanent or temporary interests in real property will be acquired by the Design Builder. In developing the Project Schedule, the Design Builder will give priority to the acquisition of parcels that have significant impact on the Project Schedule and/or affect the Critical Path as so indicated, including Relocations and Total Takes.

In developing the Project Schedule, Design Builder shall incorporate adequate time periods for MDOT SHA's review and approval of Acquisition and/or Condemnation Packages. MDOT SHA intends to review the completed Acquisition and Condemnation Packages as expeditiously as possible; however, for the purposes of the Project Schedule, the Design Builder shall assume that the reviews performed by MDOT SHA will require thirty (30) Business Days for Acquisition and Condemnation Packages insofar that these submittals require no revisions and that MDOT SHA have determined that the Design Builder's submittal are final and complete.

The Design Builder shall also assume that the reviews performed by MDOT SHA will require thirty (30) Business Days for the following submittals: payment submittals, relocation submittals, administrative settlement submittals, and closing submittals, in addition to the Acquisition and Condemnation Packages.

If MDOT SHA notifies the Design Builder that any submitted Acquisition and/or Condemnation Package has a deficiency, the Design Builder shall correct such deficiency and resubmit the package to MDOT SHA. Resubmissions shall be treated as a new Acquisition and Condemnation Package as described above. An Acquisition Package and/or Condemnation Package shall be deficient, as determined by MDOT SHA, if any of its components fail to meet any of the criteria established by the Contract Documents for such component, or contains any material errors and/or omissions. Schedule delays resulting from inadequate or incomplete submissions of Acquisition and/or Condemnation Packages shall be the responsibility of the Design Builder and may not form the basis for any Change Order, Delay Claim, or extension of time.

MDOT SHA reserves the right to undertake additional review on Acquisition and/or Condemnation Packages that contain or identify facts or issues of an unusual nature or which do not clearly fit within MDOT SHA standards and will notify the Design Builder in writing that the review period will be extended by an additional fifteen (15) Business Days before rendering a decision to the Design Builder.

The Design Builder may request MDOT SHA Appraisal Review Division to conduct a preliminary review of the Project ROW plats and appraisal before the complete Acquisition Package is submitted.

3.23.02.05 Design Builder's Project ROW Scope of Services

The Design Builder shall complete all administrative activities and prepare all documentation sufficient for the Design Builder to acquire the Project ROW.

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Except as otherwise authorized by applicable State and Federal policy and regulations for early acquisition and approved by MDOT SHA, the Design Builder shall not proceed with acquisition of the Project ROW until the site specific NEPA Approval is issued, public involvement procedures have been completed, plats and legal descriptions for the applicable constructible segment as established by the logical termini of the Project have been prepared and approved by MDOT SHA. Furthermore, the Design Builder shall not commence any negotiations with landowners until the specific Acquisition Package for that particular parcel has been approved by MDOT SHA.

If the Design Builder and the landowner cannot negotiate an agreed-upon conveyance by deed, due to any specific issue (such as the amount of just compensation, deed language, land/improvements value, damages to remainder), acceptable to MDOT SHA, MDOT SHA will initiate the acquisition of the property through eminent domain procedures.

The Design Builder shall not begin construction on or enter onto any parcel of real estate unless property rights for the parcel have been conveyed and recorded in favor of MDOT SHA, the right to enter and possession has been obtained through the filing of quick-take eminent domain proceedings, or an Entry Agreement has been validly executed and delivered by all necessary parties in accordance with TC Section 3.23.04.01 (ROW Negotiations) and authorized by MDOT SHA in writing.

3.23.02.06 Acquisition Process Summary

The Design Builder's major activities with respect to the acquisition of the Project ROW include:

- a) Project ROW parcel identification and budget estimates and updates
- b) Preparation of Right-of-Way Plats that meet MDOT SHA standards and submission of same to SHA for approval and issuance
- c) Title services
- d) Appraisal services
- e) Appraisal review
- f) Closing services
- g) Negotiations
- h) Relocation assistance
- i) Condemnation support services
- j) Clearance and demolition of Project ROW
- k) NEPA Approval
- 1) Environmental due diligence
- m) Documentation and document control
- n) Progress reports
- o) Project ROW administration and management
- p) Project ROW quality management
- q) Letter from the Design Builder's design engineer certifying that the required Project ROW acquisition is necessary
- r) Obtaining rights of entry, as necessary

3.23.02.07 ROW Personnel Qualifications

The Design Builder's **ROW** Acquisition Manager shall have at least five years of experience managing the acquisition of transportation ROW projects for a condemning authority, be familiar with appraisal and appraisal report review pursuant to the Uniform Standards of Professional Appraisal Practice (USPAP), and be familiar with the Uniform Act and applicable Laws of the State of Maryland.

Quality Control Specialist(s) – The Design Builder shall designate a specific person(s) responsible for internal quality control and quality assurance. This individual will review all Design Builder deliverables associated with ROW Plats, title, appraisal, acquisition, relocation assistance and eminent domain prior to the deliverable being delivered to MDOT SHA for review.

Appraiser and Appraisal Reviewer – Each appraiser and appraisal reviewer shall be licensed and certified in the State of Maryland and shall have a minimum of five (5) years' experience in appraising real property for eminent domain purposes, including partial taking appraisal, partial taking appraisal review and expert witness testimony. He or she must also have been actively and continuously engaged for at least three (3) years immediately preceding his or her selection for this Project in appraisal work in the State of Maryland or as approved and pre-certified by MDOT SHA. The appraisers and the appraisal reviewers shall have separate and distinct duties, and appraisers must be employed by different firms from the appraisal reviewers. Each appraiser shall be required to submit three (3) samples of previous appraisal work prepared for eminent domain purposes. All appraisers preparing and signing appraisals must be approved and precertified by SHA before performing any appraisals on the Project. If required by MDOT SHA, the appraiser will be required to demonstrate his/her experience in providing expert witness testimony in eminent domain proceedings.

Land Planner - Each land planner shall have a minimum of five (5) years' experience in land planning including experience providing expert witness testimony in eminent domain proceedings. He or she must also have been actively and continuously engaged for at least three years immediately preceding his or her selection for this Project in land planning work, or as approved and pre-certified by MDOT SHA.

Relocation Agent - Each relocation agent shall have a minimum of three (3) years' experience in relocation assistance for ROW projects pursuant to the Uniform Act. A relocation agent's responsibilities shall include the following: Determination of eligibility of all displacees, contacting all displacees and informing them of their benefits, maintaining a file of all documentation concerning the relocation of the displacees, and extending all relocation assistance advisory services to displacees.

Negotiator - The negotiator shall have a minimum of three (3) years' experience in right of way negotiations and shall be familiar with appraisal and appraisal report review pursuant to the USPAP. The ROW negotiator's responsibilities shall include the following: contact with property owners on the Project to discuss the acquisition of property needed for the Project, maintaining complete and accurate files of all transactions and contacts with the property owners and/or their representatives, actively working toward a joint

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resolution to acquire the property with the property owner, and condemnation litigation support.

Real Estate Attorney - Each real estate attorney shall be licensed by the State of Maryland and shall have at least five (5) years' experience in title review and curative matters. The real estate attorney's responsibilities shall include coordinating and clearing all title issues, and compliance assistance with State and Federal acquisition requirements for the properties acquired for the Project.

Other ROW personnel shall have at least three (3) years' experience in title review and curative matters. ROW personnel's responsibilities shall include, but not be limited to the following: maintain complete and accurate files of all transactions and contacts with the property owners and/or their representatives, coordinate and clear all title issues and assist at closing for properties acquired for the Project.

3.23.02.08 Design Builder Conflict of Interest

If at any time, the Design Builder or to the best of Design Builder's knowledge, any Design Builder-Related Entity or agent, directly or indirectly or acquires any interest in real property likely to be parcels of the Project ROW the Design Builder shall promptly disclose the same to MDOT SHA.

The Design Builder shall not acquire or permit the acquisition by the Design Builder or any Design Builder-Related Entity of any Project ROW for the purpose of avoiding compliance with the Laws, practices, guidelines, procedures and methods described in TC Section 3.23.02.01 (Standards).

3.23.02.09 Meetings

The Design Builder shall attend meetings as requested by MDOT SHA. At such meetings, the Design Builder shall provide exhibits, take minutes, and distribute the minutes to all attendees for review and comment. Minutes will not be finalized until all attendees agree on content. The Design Builder shall provide meeting minutes to MDOT SHA within five (5) Business Days from the date of the meeting. MDOT SHA will respond within five (5) Business Days or at the next occurrence of the meeting. The Design Builder shall provide proposed agendas three (3) Business Days prior to each meeting.

3.23.02.10 Documentation and Reporting

The Design Builder shall provide MDOT SHA with all specific reports and supporting documentation for review and Approval during the acquisition process. All correspondence with MDOT SHA and property owners relating to acquisition of real property shall include a heading with the following information (at a minimum):

- a) County
- b) Project Number

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- c) Item number
- d) Federal Project Number (if applicable)
- e) Route & Termini
- f) Project limits
- g) Parcel number
- h) Name of record owner(s)
- i) Design Builder shall utilize MDOT SHA's approved naming convention for all electronic files and reporting fields.

In administering and managing its Project ROW activities, Design Builder shall:

- a) Maintain parcel records on file for all aspects of the acquisition process in accordance with MDOT SHA's requirements and applicable Law. Each parcel file shall include all documents required by the Contract Documents, the FHWA, and/or MDOT SHA.
- b) Provide monthly summaries for the cost of Project ROW acquisition and related relocation assistance including amounts authorized and amounts paid on a parcelby-parcel basis and budget forecasting on an overall Project basis as requested by MDOT SHA.
- c) Maintain and electronically transmit to MDOT SHA, in a format acceptable to MDOT SHA, monthly status reports including appraisal, acquisition and relocation status of all parcels and activities related to the Project ROWs, and provide weekly updates, if requested, to MDOT SHA.
- d) Evaluate and report to MDOT SHA, Subcontractor status and performance monthly or more frequently as requested.
- e) Prepare and submit electronically to MDOT SHA, monthly, a spreadsheet that contains Project ROW specific data required to complete the fields in MDOT SHA's OREMS database or as directed by MDOT SHA.
- f) Input and update parcel status in MDOT SHA's OREMS database or as directed by MDOT SHA.

3.23.02.11 Responsibilities of Design Builder

The Design Builder shall be responsible for the costs of all services and preparation of all documentation for all Project ROW acquisition, permitting and related relocation assistance for the Project. The Work related to Project ROW acquisition includes but is not limited to: mapping, surveying, preparation of Right-of-Way plats that meet MDOT SHA standards, environmental assessment, testing and remediation, appraisal, appraisal review, negotiation, acquisition, relocation advisory assistance and determination of relocation benefits to be provided, procurement of title insurance, clearing of title, closing of

acquisitions, demolition of acquired improvements, condemnation support including providing expert witnesses required by MDOT SHA and/or the Office of the Attorney General for all condemnation proceedings (including such proceedings before a Board of Property Review or Circuit Court). Design Builder shall also be responsible for all expert witness testimony, exhibits, transcripts, and photos associated with condemnation services and proceedings required by the Office of the Attorney General or MDOT SHA for Board of Property Review hearings, jury trials and appeals. Design Builder expressly acknowledges that such condemnation proceedings and its acquisition obligations may extend far beyond the date that construction is completed on such parcels and/or the completion date for work to be performed under this Contract.

The Design Builder shall also be responsible for the costs of acquisition and documentation for the acquisition of any temporary right or interest in real property not necessary for the Project but that the Design Builder deems advisable to acquire for work space, contractor lay-down areas, material storage areas, borrow sites, or any other convenience of Design Builder. Except as otherwise authorized by Law for temporary areas necessary for construction of the Project, MDOT SHA shall not be obligated to exercise its power of eminent domain in connection with the Design Builder's acquisition of any such temporary right or interest, and MDOT SHA shall have no obligations or responsibilities with respect to the acquisition, maintenance or disposition of such temporary rights or interests.

The Design Builder shall be responsible for processing payment submittals for request of payments and distributing all payments of: agreed purchase prices or court awards and judgments; Board of Property Review awards; relocation assistance payments; all legal, administrative, and incidental expenses of, or related to, Project ROW.

The Design Builder is responsible for the payment of and all closing costs associated with the purchase of Project ROW in accordance with the Uniform Act and applicable MDOT SHA policies.

The Design Builder shall also be responsible for submitting the completed files in accordance with the closeout procedures as defined by MDOT SHA within 90 days of the completed ROW activity. The Design Builder shall provide its Right-of-Way file for each parcel which shall include, but not limited to, the following documentation:

- a) Appraisal report(s) (initial appraisal and all other issued appraisal reports, approved and/or not approved, with most recent appraisal report on top);
- b) Offer of Just Compensation letter(s)
- c) Conveyance document (Option Contract(s), Right-of-Entry Agreement(s), Deed(s), Easement(s), Judgment(s), Board of Property Review Awards;
- d) Title Insurance Policy if required by MDOT SHA or Attorney's Certificate;
- e) Negotiator Reports, Record of Negotiations and/or other correspondence regarding to the parcel;
- f) Negotiator's Certificate

For relocation and general correspondence, the following shall be included:

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- a) Relocation files (in chronological order);
- b) Relocation Agent Reports and/or Contact Sheets;
- c) General correspondence; and
- d) All other documentation regarding the parcel.

3.23.02.12 Responsibilities of SHA

MDOT SHA will have the following limited responsibilities in connection with acquisition of Project ROW:

- a) Provide final approval for all Acquisition Packages, Condemnation Packages, Relocation eligibility and payment of such benefits, administrative settlements, the amount of just compensation agreed to with property owner(s), including whether to accept or appeal a determination of just compensation determined by a Board of Property Review or Court.
- b) Coordinate services between the Design Builder and the Office of the Attorney General for all Board of Property Review proceedings, jury trials, bench trials, and related tasks.
- c) Provide a ROW Administrator to serve as the point of contact for all Project ROW.
- d) Review and approve the completed, final closeout files in accordance with the closeout procedures.

3.23.02.13 MDOT SHA Project Monitor/Reviewer

In addition to its review and Approval authority as expressly set forth in other provisions of the Contract Documents, MDOT SHA may, at its sole discretion, audit and/or monitor the ROW activities and services performed by the Design Builder. MDOT SHA may contract with independent consultants to assist it in fulfilling the audit/monitoring function provided that the audit authority is not delegated. In addition to any of the matters specifically required to be provided by the Design Builder to MDOT SHA pursuant to the foregoing sections, the Design Builder shall provide information to MDOT SHA as requested to assist in its review and assessment of the progress, timeliness, adequacy, or sufficiency of the Design Builder's Project ROW activities.

3.23.02.14 Responsibilities of the Office of the Attorney General

The Office of the Attorney General provides advice to and represents MDOT SHA in connection with condemnation proceedings before Boards of Property Review, Circuit Courts, and appellate courts. The Design Builder expressly acknowledges that the Office of the Attorney General reserves the right to assign outside counsel to fulfill that role and, if so, its obligations to the Office of the Attorney extend to such outside counsel. The Design Builder shall cooperate with and follow the instructions of the Office of the Attorney General. The advice and representation provided by the Office of the Attorney General includes but is not limited to:

- a) Represent MDOT SHA in condemnation proceedings
- b) Preparation of Land Acquisition Petitions and Complains for Condemnation
- c) If applicable, e-file condemnation documents and coordinate delivery of filed documents with MDOT SHA.
- d) Coordination with MDOT SHA on all legal matters concerning acquisition processes, including negotiated settlements
- e) Analysis of recommended parcel values and/or appraisal issues
- f) Additional legal advice and opinions as needed by MDOT SHA
- g) Represent the MDOT SHA at the Board of Property Review hearings
- h) Represent MDOT SHA at Jury trials including determination of expert witnesses testifying on behalf of MDOT SHA
- i) Preparation, obtaining, and filing of all necessary legal documentation for eviction of property owners or tenants.

3.23.03 Pre-Acquisition Activities

3.23.03.01 Title Services and Right-of-Way Plats.

With respect to title services, the Design Builder shall comply with the applicable standards identified in TC Section 3.23.02.01 (Standards), including the following requirements:

a) Select and contract with one or more title companies approved by MDOT SHA and deliver to MDOT SHA a 60-year transfer history, a preliminary title commitment or preliminary title report, and, if necessary or appropriate, copies of all underlying documents and a plot of all easements, including Existing Utility Property Interests, referenced therein for each parcel (including fee acquisitions, slope easements, other drainage and roadway ROW or easements and abandonment of utility easements) to be acquired by MDOT SHA for the Project. Each title report shall be dated not more than 90 Days prior to the date of submittal to MDOT SHA of the Acquisition Package for such parcel. The Design Builder shall, at its own cost, review each title report to ensure that it complies with the format required by the Contract Documents. The Design Builder shall, at its own cost, retain the services of a real estate attorney, licensed and located in the State of Maryland, to be available for title support and acquisition assistance. All title reports must be in the following required format: clearly indicate which

exclusions and exceptions shall be deleted upon acquisition of the subject parcel, and clearly indicate any required deliverables to the title company to clear identified exclusions and exceptions. Title reports shall be in accordance with Good Industry Practice. The Design Builder shall notify the title company, by letter, which exceptions should be removed, including easements that (a) are appurtenant to and/or of benefit to the parcel but not included in the parcel to be acquired, and (b) are a burden on the parcel and not acceptable.

- b) Review the preliminary title commitment or report to ensure that all current owners of record title are contacted, and that negotiations or condemnation actions are conducted with all appropriate parties.
- c) Work with the current owners of record title of each parcel or interest in a parcel or their designee and all other appropriate parties to clear any title exceptions or exclusions not acceptable to MDOT SHA.
- d) If required by MDOT SHA, secure an owner's policy of title insurance in the amount of the total acquisition cost, to include cost of the property, improvements and damages to the remainder of the property, for each parcel from a title company acceptable to MDOT SHA for each parcel acquired, whether by deed or eminent domain judgment, insuring title as required by MDOT SHA. All Project ROW shall be acquired, and MDOT SHA's title in the Project ROW shall be insured, in fee simple absolute or easement interest as appropriate, free and clear of all liens and encumbrances. Title policies must be in a form and substance approved by MDOT SHA. Title to the Project ROW shall be insured in the name of the "State of Maryland to the use of the Maryland Department of Transportation State Highway Administration."
- e) Preparation of Right-of-Way Plats that meet MDOT SHA standards and submission of same to MDOT SHA for approval and issuance

3.23.03.02 Introduction to Property Owners

The Design Builder will prepare for MDOT SHA signature an initial contact letters of introduction for both property owners and displacees, offer letters, and any other related correspondence that MDOT shall require. Following signature, the Design Builder is responsible for deliver or mailing. The letters shall clearly describe the Project, MDOT SHA's need for the owner's property, and shall include the name and telephone number Design Builder's representative. The form for these letters will be approved by MDOT SHA prior to use. Property owners or displacees unable to read or understand the notice must be given appropriate translation.

Such letter will include any standard brochures of informational materials designated by MDOT SHA including MDOT SHA's current pamphlet, "Your Land and Your Highway" and/or current general pamphlets or information related to Relocation Assistance. Offer

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letters will include a copy of the Right-of-way Plat(s), Appraisal, and any other materials required by MDOT SHA.

3.23.03.03 Appraisals

3.23.03.03.01 Appraisal Services

The Design Builder shall provide MDOT SHA with fair market value appraisals prepared by appraisers needed to estimate just compensation meeting the minimum qualifications established herein. The Design Builder shall ensure that all appraisals are prepared in conformance with applicable Maryland and Federal Law (including the Uniform Act), USPAP, and in accordance with professional appraisal methods and applicable MDOT SHA standards. Design Builder shall:

- a) Select appraisers from MDOT SHA's list of pre-certified fee appraisers and meeting the requirements specified in TC Section 3.23.02.07 (ROW Personnel Qualifications). If an appraiser is not on that list Design Builder will submit the name and qualifications for addition to the list. MDOT SHA shall have final Approval of the selection of each appraiser and appraisal reviewers submitted by the Design Builder.
- b) Establish personal pre-appraisal contact with each owner of record title and document all contacts within the body of the appraisal.
- c) Contact the record title owners or their designated representatives, in writing, to offer them the opportunity to accompany the appraiser on the appraiser's inspection of the parcel and maintain a record of all such contacts and attempts to contact in the parcel file.
- d) Cause the appraiser to prepare a complete appraisal report for each parcel to be acquired to include the whole property, the portion to be acquired, and any damage to the remainder. It shall also include all improvements on the whole property affected by the acquisition, unless otherwise directed by MDOT SHA. The appraisal reports shall comply with the Uniform Appraisal Standards for Federal Land Acquisitions (Yellow Book) and shall satisfy the requirements of the USPAP in effect at the time the appraisal is submitted. Special analyses, studies or reports, as necessary, shall be made a part of each appraisal. The appraiser must use the most current edition of the standards referenced above and continually monitor these standards to ensure the appraisal practice.
- e) Perform an evaluation of all outdoor advertising signs, as required, utilizing the appropriate forms as instructed by MDOT SHA.

- f) Cause the appraiser(s) to testify as an expert witness(es) or provide expert witness(es) approved by MDOT SHA in Board of Property Review hearings and/or eminent domain proceedings through jury trial and be available for depositions, other discovery, pre-hearing or pretrial meetings, as directed by MDOT SHA.
- g) Coordinate with the review appraiser regarding corrections and/or additional information that may be required for an appraisal.
- h) If necessary for valuation purposes, cause a report(s) to be prepared by an environmental professional that meets the qualifications set forth in ASTM E-1521-05, Standard Practice for Environmental Site Assessments, and any other applicable standards. Such reports may include Phase I, Phase II, and/or Phase III. The Design Builder shall prepare timely written notification to MDOT SHA of any environmental or other concerns associated with the Project ROW or Additional Properties to be acquired that could require environmental remediation, effect the determination of just compensation, otherwise require special attention, or the preparation of such environmental report(s). In the event that the Design Builder has exhausted all means possible and is unable to access the properties to perform an ESA Phase II and/or III, the Design Builder may submit the Acquisition Package and Condemnation Package without the ESA reports. However, the Design Builder will be responsible for performing and receiving Approval from MDOT SHA for all required ESAs after possession of the property has been obtained through condemnation before commencement of construction.
- i) If necessary for valuation purposes, engage the services of, and cause, a land planner to perform, or otherwise assist in the preparation of, all appraisals that involve a parcel with a valuation analysis indicating a highest and best use that is other than the current use of such parcel, or as directed by MDOT SHA for certain other appraisals. The Design Builder shall notify MDOT SHA in writing of each instance when the highest and best use of a parcel is different and MDOT SHA will determine to what degree land planner services will be utilized by Design Builder.
- j) Cause the appraiser(s) to prepare updated appraisals, as well as updated appraisal reviews, when required by MDOT SHA or as needed during eminent domain proceedings. An updated appraisal package shall comply with applicable standards, including the USPAP, specifically the Statement on Appraisal Standards No. 1 (SMT-1) and Advisory Opinion, AO-3. The term "Update of an Appraisal" is defined as "an

extension of a complete or limited appraisal and report relied on by a client for a prior business decision." At a minimum, the updated appraisal report must include:

- A letter of transmittal with a specific reference to the original appraisal report, any changes in market conditions, since the original appraisal, any changes in the subject property since the original appraisal, a statement of the current value or extension of the original value opinion and the listing of the current date of value.
- Any qualifying and limiting conditions or general assumptions by the appraiser shall be clearly stated and attached.
- A copy of the survey and legal description of the property being acquired, current photographs of the subject property, clearly showing the area being acquired, even though the original appraisal report contained photographs of the subject and the area of the acquisition. If there are significant changes to the subject property, the area being acquired, access to the remainder property, damages to the remainder(s), market conditions, the subject property's highest and best use from the previous appraisal or significant changes in the approaches to value, the property shall be reappraised.
- k) Prepare and deliver to MDOT SHA upon request, a copy of all file documents, as formally requested in discovery motions or request for production.
- 3.23.03.03.02 Appraisal Review

In connection with appraisal review, the Design Builder shall:

- a) Select review appraisers from SHA's list of pre-certified fee appraisers and meeting the requirements of TC Section 3.23.02.01 (Standards). If a review appraiser is not on SHA's pre-certified list the Design Builder may submit the name and qualifications to MDOT SHA for approval.
- b) Determine, in consultation with MDOT SHA, if additional appraisal reports or technical expert reports are required. Initiate, review, and reconcile each report required.
- c) Review all appraisal reports for each parcel to determine consistency of methodology, supporting documentation related to the conclusion reached, and compliance with applicable MDOT SHA standards, including those identified in TC Section 3.23.03.03.01 (Appraisal Services) and this TC Section 3.23.03.03.02 (Appraisal Review), including, but not limited to: the Uniform Appraisal Standards and

Federal Land Acquisitions (Yellow Book), the requirements of USPAP in effect at the time the appraisal is reviewed, and applicable federal and Maryland law relating to the amount of just compensation. The review appraiser must use the most current edition of the standards referenced above and continually monitor these standards to ensure the appraisals conform to the most current requirement of professional appraisal practice.

- d) Inspect the subject properties and the sale properties used in direct comparison for each appraisal being reviewed.
- e) Upon completion of the review outlined above, the appraiser shall certify in writing to MDOT SHA that all required standards have been met. The review appraiser will prepare and sign any review appraisal forms required by MDOT SHA.
- f) For appraisal updates, the review appraiser shall perform a complete review of the updated appraisal, re-inspecting the subject property and the sales used, as of the current date of value.

3.23.03.04 Project ROW Acquisition Package Approval

Acquisition Packages submitted by the Design Builder for MDOT SHA's Approval shall include the following items, prepared for each parcel in accordance with the requirements of this section:

- a) A cover sheet setting forth the following information for each parcel.
- b) The appraisal, review appraisal, and any other related reports prepared by land planners, environmental site assessments (Phase I, II, and/or III), or any other experts necessary for MDOT SHA to estimate just compensation and determine the amount to be offered.
- c) ROW plat of the parcel prepared by the Design Builder and approved and issued by MDOT SHA. As detailed elsewhere in the Contract Documents all such ROW plats must be signed and sealed by a Professional License Surveyor (PLS), include adequate description of the parcel and property and rights to be acquired, be in recordable form, and otherwise comply with all requirements acceptable to MDOT SHA.
- d) A title report, current within 90 days, including copies of all documents identified in the exceptions listed and the Title Examiner's analysis or title commitment to determine potential problems and proposed methods to cure title deficiencies. The Design Builder shall perform title curative work. The Design Builder shall provide MDOT SHA with copies of all of Title

Examiner's curative documents.

- e) Accurate and complete SHA Form 80 that includes a description of the fee and/or other interests in property to be acquired that matches the descriptions shown on the ROW Plat(s) and the full legal names and addresses of all interested parties and their interest / representative capacity (i.e. fee simple owner, personal representative, trustee, secured party, tenant, etc.). A copy of all leases on the property shall be included or, in the alternative, a statement that Design Builder believes that the subject property is subject to leases and a description of Design Builder's efforts to obtain copies of all leases and why those efforts were unsuccessful.
- f) A real/personal property report detailing the items making up each parcel are classified as real estate, tenant-owned improvements or personal property. Particular attention shall be paid to items that have questionable classifications.
- g) All documents relating to Relocation Assistance, including Replacement Housing Calculations, notification of business eligibility, completed displacee interviews, all comparables used in estimating the Replacement Housing Calculations, and letter to displacee(s) explaining Replacement Housing Calculations. Calculations and replacement housing benefit package shall be prepared and reviewed by a qualified consultant, in conformance with MDOT SHA's standard relocation procedures and applicable to State and Federal Laws.
- h) The proposed initial Offer of Just Compensation, Option Contract, Deed, Releases or Waivers, and any other documents necessary to provide MDOT SHA good and marketable fee simple title free of all liens and encumbrances. MDOT SHA will provide the format for preparing these documents. Documents referred to in this section are standardized by MDOT SHA and modification of standardized documents shall be kept to a minimum. All changes are subject to Approval by MDOT SHA in writing, in MDOT SHA's sole discretion.
- i) Any other required MDOT SHA forms, such as record of all contacts with the property owner or any party with a compensable interest.

No Acquisition Packages will be approved if performed or submitted by appraisers or agents not previously approved by MDOT SHA for this Project.

3.23.03.05 Approval of the Offer of Just Compensation

Upon MDOT SHA's approval of just compensation, the Design Builder may proceed with the presentation of the Offer of Just Compensation to the property owner.

3.23.04 Acquisition Activities

3.23.04.01 ROW Negotiations

The Design Builder shall conduct all negotiations in accordance with the requirements of all applicable laws, including but not limited to the authority identified in TC Section 3.23.02.01 (Standards). In conjunction with negotiations, the Design Builder shall:

- a) Maintain a relocation office (meeting ADA requirements) within reasonable proximity of the Project area as approved by MDOT SHA. The Design Builder shall be available to all displacees for relocation services at the convenience of the displaces and shall provide displacees with a 24-hour Toll Free phone number with a monitored voicemail.
- b) Upon MDOT SHA's approval of the Acquisition Package, contact each property owner or owner's designated representative, in person where practical, to present the Offer of Just Compensation with supporting documents including the appraisal report, ROW Plat(s), and appropriate brochures. A copy of the appraisal report for the subject property shall be provided to the property owner or authorized representative at the time of initial offer. All appraisal reports produced or acquired by the Design Builder relating specifically to the property owner's property must be delivered to the property owner. The Design Builder shall also maintain a file record of receipt of appraisal signed by the property owner. The Design Builder shall also maintain a complete and detailed Record of Negotiations on forms approved or provided by MDOT SHA that detail all follow-up contacts, attempted contacts, and written and verbal communication. The Design Builder shall secure the necessary documentation and title curative work upon acceptance of the purchase offer.
- c) Identify lessees, licensees, occupants, or other parties with potential compensable interests including outdoor advertising sign owners, and, if appropriate, after consultation with MDOT SHA, negotiate with such parties for the acquisition of their compensable interests, as applicable, to the administrative settlement process. Confer with and transmit to MDOT SHA's ROW Administrator any settlement request from property owners, lessees, licensees, occupants, or other holders of any compensable interest, as applicable, including a detailed recommendation from the Design Builder in accordance with standards, manuals and procedures as defined in TC Section 3.08 and TC Section 3.23.02.01 (Standards) MDOT SHA shall determine whether to accept such settlement request. Delivery of the administrative settlement request and the Design Builder's recommendation to MDOT SHA must occur within 5 (five) Business Days following the Design Builder's receipt of the administrative settlement request.

- d) The Design Builder shall provide a letter with the MDOT SHA's response to the property owner, lessee, licensee, occupant, or other holder of a compensable interest, as applicable. The Design Builder shall deliver all settlement responses (if within reasonable proximity of the Project) by hand within three (3) Business Days after receipt. If this delivery method is not feasible, the Design Builder shall mail (return receipt requested) response letters not more than three (3) Business Days following any decision by MDOT SHA. If the Design Builder selects the mailing option, the Design Builder shall make a telephone call to the property owner to discuss the settlement offer prior to mailing the response letter. The SHA ROW Administrator, on an as-needed basis, will be the point of contact on all administrative settlement matters.
- e) Notwithstanding an unsuccessful completion of the formal administrative settlement process, the Design Builder shall continue to engage in negotiations with the owners of compensable interests. The Design Builder shall develop and incorporate in its ROW Acquisition Plan a procedure for negotiated settlements.
- f) Provide timely (i.e., not more than five (5) Business Days after inquiry) response to the verbal or written inquiries of any property owner, lessee, licensee, occupant or other holder of a compensable interest, as applicable.
- g) Prepare a separate negotiator contact report for each meeting or conversation with any person (or their appointed representative(s) supported by a written confirmation of appointment) who has a compensable interest in each parcel on MDOT SHA ORE Form 17 – Record of Negotiations. Contact records shall also be prepared for unsuccessful attempts to contact such persons.
- h) Maintain a complete parcel file for each parcel. All original documentation related to the purchase of the real property interests will be maintained (housed separately from the relocation files) in conformance with MDOT SHA standards, manuals, and procedures, as defined in TC Section 3.08 and TC Section 3.23.02.01 (Standards). All original Project ROW documents must be retained and properly secured in Design Builder's Project office or as otherwise approved by MDOT SHA. Signed original documents shall be forwarded to MDOT SHA periodically or as requested by MDOT SHA with a transmittal form during the acquisition process; provided, however, that all remaining original documents shall be forwarded upon completion of the acquisition of Project ROW for the Project.
- i) Prepare and deliver documents of conveyance to the property owner, lessee, licensee, occupant, or other holder of any compensable interest for execution. Such documents shall be notarized and recorded by the Design Builder in accordance with Maryland Law.
- j) Pursue and obtain Right-of-Entry Agreements (ROE), if applicable. concurrently with the parcel negotiations. The form of the ROE will be provided by MDOT SHA and will contain provisions allowing for

construction to commence while negotiations are finalized. Such agreements will be sought and negotiated by the Design Builder strictly in accordance with the Law and only with the prior written consent of MDOT SHA. If Design Builder exercises the use of a MDOT SHA ROE, the Design Builder must obtain an Option Contract or submit a condemnation package to MDOT SHA for Approval within Ninety (90) days from the date of the ROE, unless such time is expressly extended by MDOT SHA.

- k) Be open to all reasonable settlement requests (that comply with the regulations as outlined in this section) from the property owners, which are feasible and help expedite the Project ROW acquisition process. The Design Builder acknowledges and understands that MDOT SHA encourages all positive and creative solutions which satisfy the property owner and promote the success of the Project.
- Prepare and deliver supplemental settlement /counter-offer letters to the property owners, lessees, licensees, occupants, or other holders of any compensable interest, as applicable. The Design Builder shall submit to MDOT SHA, a copy of such letters within two (2) business days after delivery to the property owner. Supplemental settlement / counter-offers above the initial offer letter approved by MDOT SHA must be approved in advance by MDOT SHA or expressly state that it is contingent on MDOT SHA approval.

3.23.04.02 Relocation Assistance

The Design Builder shall coordinate and perform the administrative requirements necessary to relocate any occupants and personal property from Project ROW, as authorized by MDOT SHA. All Work prepared by the Design Builder with respect to relocation assistance shall be performed in accordance with applicable Law, including the Uniform Act and MDOT SHA standards, and in accordance with all provisions of this Agreement. All work shall be recorded in the MDOT SHA OREMS database by Design Builder, unless otherwise approved by MDOT SHA.

The Design Builder's major activities with respect to the relocation assistance of occupants from Project ROW include:

- a) Preparing a Relocation Plan in accordance with the MDOT SHA ORE Manual, within 90 Business Days after receipt of Notice-to-Proceed (NTP) and shall submit to MDOT SHA for approval.
- b) Monitoring relocation assistance activities.
- c) Prevent fraud, waste and mismanagement.
- d) Assist with all requests and be responsible for implementing decisions made

by MDOT SHA, including the review/appeal process and judicial reviews associated with relocation assistance.

The Design Builder shall provide relocation assistance strictly in accordance with the Federal and State Laws, and, in particular, the Uniform Act and applicable MDOT SHA standards. With respect to relocation assistance, the Design Builder's responsibilities and obligations include but are not necessarily limited to the following:

- a) Provide written notice to all displaced property owners, lessees, licensees, occupants, other holders of compensable interests, and other potential displacees regarding relocation assistance and provide them with a relocation assistance brochure that has been approved by MDOT SHA. The Design Builder shall perform relocation interviews, complete and maintain interview forms and discuss general eligibility requirements, programs, and services with potential displacees. The Design Builder shall maintain a written record of all verbal contacts.
- b) Contact and provide relocation assistance to those parties affected by the Project ROW acquisition and complete forms for all displacees, as required.
- c) Locate, evaluate and maintain files on comparable available housing, commercial, retail, and industrial sites, as applicable.
- d) Calculate replacement supplement eligibility and benefits.
- e) Compute and submit requests for relocation rental/housing study and/or supplement to MDOT SHA Office of Real Estate prior to submission to displacees. All relocation eligibility and/or supplements shall be subject to MDOT SHA's written approval within five (5) business days.
- f) Perform a Decent, Safe and Sanitary (DSS) inspection for each replacement residential housing comparable, photograph the comparable and complete the DSS inspection form. All pertinent relocation assistance forms shall be obtained from the MDOT SHA ROW Project Administrator.
- g) Obtain at least two moving estimates from moving companies to effect relocation of personal property in compliance with the Uniform Act.
- h) Prepare moving plan with appropriate photos, sketches and inventory of personal property to be moved.
- i) Coordinate moves with displacees and moving companies in accordance with MDOT SHA standards and the Uniform Act.
- j) Maintain relocation contact records on a MDOT SHA Form 17 and/or in the

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MDOT SHA OREMS database as directed by MDOT SHA.

- k) Attend all closings on replacement properties, if requested by any party involved, and assure supplemental payments, if any, are properly distributed.
- 1) Process and compute increased interest payments on the mortgage of owneroccupied dwellings, as required.
- m) Deliver to displacees a 90 Day notice of eligibility letter simultaneous with the delivery of the relocation benefits package. Deliver a 90 Day letter to displacees with the location of the comparable property used to compute the replacement housing eligibility.
- n) Inform the displacees of their right to appeal their replacement eligibility in accordance with the Uniform Act and Maryland law. The first stage of appeal shall be submitted to the MDOT SHA Director of ORE or his/her designee. The second stage of appeal shall be submitted to the MDOT SHA Administrator or his/her designee and is subject to judicial review.
- o) Deliver a 30-day notice to displacees and property owners upon Possession or obtaining the right of possession of Project ROW or improvement being acquired for the Project.
- p) Notify MDOT SHA's ROW Administrator immediately if a displace has not moved after the 30-day notice expires. Special effort and consideration should be extended to the displacees in the move-out process. If the displacees have not moved from the State-owned improvement and eviction becomes necessary, the Design Builder must provide written request to MDOT SHA to begin eviction proceedings. The request must include written evidence of the due diligence efforts made by the Design Builder to move the displacees from the acquired improvement. The Design Builder shall also provide written recommendations on how MDOT SHA can facilitate the displacee's move.
- q) Ensure that agents are available for any appeals or hearings.
- r) Prepare relocation payment claim submissions for all displacees and all relocation assistance benefits.
- s) Verify DSS dwelling criteria on all replacement housing as selected by the displacees, unless otherwise instructed by MDOT SHA.
- t) Secure dwellings and structures no later than 10-days, or such shorter time specified by MDOT SHA, after vacancy by the displacees and protect the

acquired improvements following acquisition and relocation.

- u) Maintain a complete, separate from acquisition files, on each displacee and make available for inspection.
- v) Prepare all correspondence to the displacees or their representative(s) on Design Builder's designated relocation letterhead and have Design Builder's correspondence signed by the Project's ROW Relocation Agent.
- w) Deliver to each displace the relocation assistance payments and obtain a written receipt signed by the displacee.
- x) Assist MDOT SHA and the Office of the Attorney General with eviction proceedings. Serve notice of eviction proceedings to the occupant(s) of the property who have not complied with move dates. Coordinate the eviction process with the local authorities and accompany the Sheriff's Department when the local authorities are carrying out eviction.

3.23.04.03 Closing Services

For purposes of closing services, the Design Builder shall:

- a) Submit a closing submittal to MDOT SHA for review a minimum of 24 hours prior to closing. Closing submittals shall include the following: a.) a reference to the disposition of any environmental matters; b) if title insurance is required by MDOT SHA updated title commitment, no more than fifteen (15) Days prior, with notations indicating the disposition of all encumbrances, liens and/or other clouds or title; c) a copy of the special warranty deed to be delivered; d) a proposed closing statement indicating disposition of all proceeds; e) a copy of any and all releases of liens; f) a copy of any miscellaneous documents and other curative matters required to be delivered at closing and g) a copy of the closing memorandum outlined in item (b) below.
- b) Prepare the escrow agreement and closing documents, if applicable, including a closing memorandum identifying all parties involved in the closing, and listing all documents to be executed and/or delivered in connection with the closing.
- c) Schedule and attend closing with Design Builder's title company; provide curative title documents and exhibits as required and in conjunction with the applicable title company. Confirm that all conditions to closing are satisfied and notify MDOT SHA of all closing appointments.
- d) At closing, pay to the property owner(s) any balance due on the total just

compensation agreed upon by the parties, determined by an unappealed and binding decision of a Board of Property review, or determined in a Circuit Court. As specified in TC 3.23.01 the Design Builder is responsible for the payment of just compensation, except that MDOT SHA will pay any difference between the Design Builder's estimate of just compensation approved by MDOT SHA and the actual amount of just compensation agreed to by the parties or determined by a Board of Property Review or Circuit Court. The Design Builder will invoice MDOT SHA for any excess over the approved estimate for which it is responsible and is also responsible for ensuring that any estimate of just compensation deposited with a Circuit Court that has not been previously withdrawn is available at settlement.

- e) If title insurance is required, obtain an issued title policy based on the approved updated title commitment within 30 Days following closing and transmit the same to MDOT SHA.
- f) Record the fully executed deed and any other instruments delivered at closing, including but not limited to releases, in the land records immediately following closing.
- g) Obtain and deliver to MDOT SHA one (1) certified copy of each instrument of conveyance immediately after closing, and where title insurance is required provide the original title policy to MDOT SHA within five (5) Business Days after receipt. Cause to be delivered to MDOT SHA the original recorded deed within ten (10) Days after the title company receives the recorded deed.

3.23.04.04 Condemnation Support

Where needed ROW cannot be acquired by good faith negotiations, the Design Builder shall request acquisition of the property by condemnation and provide the resources necessary to support such acquisition. The Design Builder is responsible for performing the following tasks and services and such other related tasks as directed by MDOT SHA:

- a) Notify MDOT SHA of any potential condemnation and document the reason(s) for condemnation including recommendations for requesting the authorization of the State Roads Commission to initiate quick-take eminent domain proceedings.
- b) In the event of an unknown owner the Design Builder shall promptly document the reasons the owner(s) cannot be identified or found, supported by affidavits of appropriate title experts, and request MDOT SHA to seek the authorization of the State Roads Commission to acquire such needed ROW by condemnation.

c) Submit a Condemnation Package to MDOT SHA requesting the State Roads Commission to authorize the acquisition of the needed ROW by quick-take condemnation. The Condemnation Package shall include two copies of the following documents:

FOR ALL ACQUISITIONS

1	A Complete Copy (not the original) of the entire item file.
2	Full size copies of all right-of-way plats.
3	Appraisal.
4	Appraisal Review Determination of Amount to be Offered and/or Deposited into Court.
5	Complete Record of Negotiations.
6	Signed offer letter.
7	Draft Resolution for SRC to Authorization Condemnation.
8	Current title report or bring to date of older title report (within 30 days of submission of Condemnation Package).
9	Current SDAT Real Property Data Search Printout confirming name of current owner according to assessment records (within 30 days of submission of Condemnation Package).
10	Accurate and complete Form 80, including: Description of the fee and/or other interest(s) in property to be acquired that matches the description on the plat(s); Owner SSN / EIN or verification that owner refused to provide; Correct full legal names and addresses of all interested parties and their interest / representative capacity (i.e. fee simple owner, personal representative, trustee, secured party, tenant, etc.).

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FOR ACQUISITIONS FROM ANY PROPERTY WITH TENANT(S)

11	A list of tenants provided by the owner / landlord that includes the correct full legal name and address for each tenant; or Verification that owner /landlord refused to provide a list of tenants along with a list of tenants prepared based on best available information, including physical inspection of the property.
12	Copy of all leases; or Verification that owner / landlord refused to provide.
13	Tenant Waivers for each tenant waiving all rights of possession in the property to be acquired, all
	rights to compensation; and all rights to possession in the property to be acquired or Owner / Landlord
	Indemnity Agreement providing for same.
14	If Tenant Waivers or Owner Indemnity Agreement not provided, recommendation whether to include
	tenants as defendants in condemnation proceedings and the basis for that recommendation.

FOR ACQUISITIONS WHERE ONE OR MORE INTERESTED PARTIES IS A BUSINESS ENTITY OR REPRESENTATIVE OF ANOTHER (UNLESS ALREADY PROVIDED IN RECENT TITLE REPORT OR COMMITMENT FOR TITLE INSURANCE)

15	Printout(s) from available resources confirming the correct full legal name of each business entity or representative that may have an interest in the property.
16	Printout(s) from available resources confirming that each business entity or representative that
	may have an interest in the property is in good standing and active status.
17	Where there has been a change in ownership, assignment, or the business entity / representative is defunct, the identification of the successor(s) in interest with supporting details and documentation.
18	Printouts from available resources confirming name and address of resident agent, officer, or other authorized representative of each business entity or representative that may have an interest in the property for service of process.

- d) Submit a separate check from the Design Builder's account for the estimate of just compensation to be deposited with the Clerk of the Court for the use and benefit of all parties that may have an interest in the property to be acquired. Unless directed otherwise, such checks shall be made payable to the Clerk of the Circuit Court (for the County in which the case is to be filed).
- e) Submit a request for the acquisition to be placed on the agenda of the next scheduled Maryland State Roads Commission meeting; provided the completed Condemnation Package is submitted by Design Builder at least ten

(10) Business Days before the Commission's required deadline for eminent domain authorization requests.

- f) Submit a draft Land Acquisition Petition or Complaint for Condemnation prepared by the Design Builder in paper and electronic (MS Word) format. MDOT SHA will provide Design Builder with the current forms / templates. MDOT SHA, in cooperation with the Office of the Attorney General, will file a Land Acquisition Petition or Complaint for Condemnation within thirty (30) days of the submission of a complete Condemnation Package, the Design Builder's check for the estimate of just compensation to be deposited with the Clerk, and State Roads Commission's authorization to initiate eminent domain proceedings.
- g) Submit a copy of the Land Acquisition Petition or Complaint for Condemnation to the Design Builder's title company and confirm with the title company that the appropriate parties were joined in the case and that no changes in title have occurred since the original title examination was completed. Design Builder will order a title bring to date to the date of filing and provide the same to MDOT SHA and the Office of the Attorney General.
- h) Coordinate and provide legal and technical support to MDOT SHA, as required to facilitate filing the petition, assignment of a court, and setting of a hearing date.
- i) Provide an individual or individuals having sufficient knowledge of the acquisition to appear as fact witnesses and the design of the Project to appear as an expert witness for testimony at the Board of Property Review hearing or other proceedings. This individual(s) is also responsible for preparing exhibits as requested by MDOT SHA or the Office of the Attorney General in support of said testimony.
- j) Make available to MDOT SHA on behalf of the Attorney General's office an agent who will be expected to assist in making arrangements for conferences with witnesses prior to hearings and/or trial and perform any other duties which will assist in the successful prosecution of the suit, including his or her attendance in court and filing necessary documents to complete all eminent domain proceedings.
- k) Update the existing appraisal to the date of value or obtain a new appraisal based on the date of value as directed by MDOT SHA. The decision to update the existing appraisal or order a new appraisal will be based on a variety of factors including market conditions, proximity of date of value in appraisal to date of value in condemnation proceeding, the nature and extent of the acquisition, and knowledge of additional facts or allegations that were not known at the time of the initial appraisal. If it is determined that an

updated or new appraisal is necessary or desirable, Design Builder will obtain such appraisal using the same procedures as described in TC Section 3.23.03.03.01 (Appraisal Services) above. The Design Builder must also undertake appraisal review as described in TC Section 3.23.03.03.02 (Appraisal Review). The Design Builder will submit the updated or new appraisal to MDOT SHA for review and approval. If MDOT SHA determines that a revised offer is appropriate, the Design Builder shall prepare a revised offer letter, submit to MDOT SHA for approval, and provide a check for the additional funds to be deposited with the Clerk of the Court for the use and benefit of the parties defendant having an interest in the property to be acquired.

- 1) Coordinate with MDOT SHA on behalf of the Attorney General as to land planners and/or other expert witnesses as required by the Attorney General. The Design Builder, at its own cost, shall provide the land planner or any other expert at the request of MDOT SHA or the Attorney General.
- m) Appear or provide for the appearance of expert witness(es) or fact witness(es) when requested by MDOT SHA or the Attorney General's Office. Their appearances may include Board of Property Review hearing preparations, Board of Property Review hearings, and subsequent proceedings including jury trials and related proceedings.
- n) Communicate with MDOT SHA as to the parcel status on a monthly basis and in the Project progress report or as requested by MDOT SHA.
- o) Upon completion of a Board of Property Review hearing, prepare the appropriate MDOT SHA Board of Property Review Hearing Notes and/or Reports and certify the Board of Property Review members invoices for conducting all tasks related to the hearing. The Design Builder shall make payment to all Board of Property Review members involved in the hearing and include payment for the members as part of general Project ROW services.
- p) The Design Builder shall coordinate with MDOT SHA and the Office of the Attorney General regarding fact and/or expert witnesses needed to testify on behalf of the State at the Board of Property Review hearings and subsequent proceedings including jury trials. At the request of the Office of the Attorney General or MDOT SHA, the Design Builder shall provide and pay for all necessary expert witnesses including: engineering, land planners, real estate consultants, cost estimators, outdoor advertising sign experts and environmental consultants and the Design Builder shall appear as expert witness or fact witness, as requested. The Design Builder shall also make any Subcontractors available to appear as an expert witness or fact witness, as requested at the Board of Property Review hearing or subsequent

proceedings up to Final Acceptance of the construction project or through any maintenance agreement periods. All fact and expert witnesses will be and remain available to testify at Design Builder's expense until legal title to the ROW is acquired, even if all construction work under the Contract is completed.

- q) Pay required per diem compensation for all Board of Property Review hearing members, Board of Property Review secretary, expert witness fees, cost of exhibits, and all other hearing / trial expenses.
- r) Coordinating pre-hearing preparation meetings with MDOT SHA on behalf of the Attorney General's office and all others required for testimony or exhibit preparation. The Design Builder shall require expert witnesses with all exhibits and documents to be present at such pre-hearing meetings.
- s) Timely file and provide proper service of objections if requested by MDOT SHA or the Office of the Attorney General after completion of the Board of Property Review hearing and promptly provide evidence of filing and copies of all filed documents to MDOT SHA.
- t) Provide an individual or individuals having sufficient knowledge of the design of the Project to appear as an expert witness for testimony at the Board of Property Review hearing or other proceedings. This individual(s) is also responsible for preparing exhibits as requested by MDOT SHA or the Office of the Attorney General in support of said testimony. Exhibits shall be left in the custody of MDOT SHA at the close of the hearing.

3.23.04.05 Condemnation Support Performance Bond and Liability Insurance

In addition to any Performance Bonds required elsewhere in the Contract Documents for the construction of the improvements, the Design-Builder shall furnish a separate Performance Bond to guarantee acquisition of all Right-of-Way and Condemnation Support Services required by the Contract Documents. The amount of this separate Performance Bond will be equal to 30 percent of the Design-Builder Administrative Costs for Right-of-Way Acquisition required in TC Section 7.10.01. This Condemnation Support Performance Bond shall be for the entire period required to complete the process for all Right-of-Way acquisition and Condemnation Support Services required for this project. This separate Performance Bond is required because of the possibility that Rightof-Way acquisition and Condemnation Support obligations may extend beyond the date that all construction work required by the Contract Documents is completed. This separate Performance Bond will be released when all required Condemnation Support obligations have been fulfilled and legal title to all ROW has been acquired.

3.23.04.06 Early ROW Acquisition

MDOT SHA shall notify the Design Builder if certain Project ROW parcels are scheduled to be acquired by MDOT SHA or Governmental Entities prior to issuance of the NTP. The Design Builder will be updated regularly on the status of the acquisition process for each parcel, if any. After NTP, the Design Builder shall complete the acquisition process and coordinate the scheduling of any remaining early Project ROW acquisitions.

TC 3.24 PLATS PERFORMANCE SPECIFICATION

3.24.01 General

The Design-Builder shall conduct the preparation of Right-of-way work maps, mosaics and Plats, as required, for the Project in accordance with all applicable criteria and standards cited herein and in accordance with this Plats Performance Specification.

The Design-Builder shall provide a Plat Engineer who is a Maryland registered Property Line Surveyor or Professional Land Surveyor with a minimum of **ten (10) years** demonstrated experience in MDOT SHA Plat preparation. The Administration reserves the right to request a resume to verify said qualifications.

3.24.02 Guidelines and References

3.24.02.01 Guidelines

All work shall be in accordance with this Plat Performance Specification and the relevant requirements of the Guidelines and References in TC 3.08.

3.24.03 Requirements

The Design-Builder shall conduct the preparation of Right-of-way work maps, and mosaics as needed by the Design-Builder or as directed by the Engineer. Plats shall be required for the Project for those areas where the Design-Builder's improvements fall outside of existing MDOT SHA Right-of-way as approved by the Administration.

3.24.03.01 Property Owner Coordination

The Design-Build Team shall not enter property until authorized by the MDOT SHA, Office of Highway Development.

In accordance with the Annotated Code of Maryland Real Property Article 12-111, the property owner shall be notified no less than 60 Days prior to the proposed date of entry onto the private property to perform survey. The Design-Build Team must submit to the Administration a Property Owner Notification request in writing or via email. The request shall include the property owner's name(s) address and the address and tax ID of the property to be entered and the approximate date for entry. The information for multiple properties may be included in a single request.

The Design-Build Team shall be responsible for any damage caused to private property.

3.24.03.02 Survey Datums

A. Horizontal Datum

Unless otherwise directed by the Administration, the North American Datum of 1983 1991 Adjustment (NAD83/91) shall he utilized for all survey and development.

B. Vertical Datum

Unless otherwise directed by the Administration, North American Vertical Datum of 1988 (NAVD88) shall be utilized for all elevations.

3.24.03.03 Metes & Bounds Survey

A. Safety Requirements

The Design-Build Team shall adhere to provisions set forth in the "Safety Manual for Field Survey Personnel" issued by the MDOT SHA Plats and Surveys Division dated July 2003 and any revisions thereto as well as any field safety and/or operation directives which may be issued. The Design-Build Team shall also be in compliance with the Maryland Occupational Safety and Health Act Standards

B. Equipment

The Design-Build Team is required to have in its possession all necessary survey equipment needed to satisfactorily complete the activities according to the criteria established in the MDOT "SHA Specifications for Consulting Engineers Services, Volume II", Section VII - Part I. The Plats and Surveys Division is currently using the Bentley MicroStation Computer Aided Drafting and Design System (C.A.D.D.) and Bentley's InRoads/COGO Classic Program.

All survey instruments used shall be in good condition, adjustment and calibration. All tribrachs shall have been and be checked every six months. All total stations shall have a DIN specification of 5 seconds or less and shall have been calibrated at a N.G.S. calibration range at least twice a year. The Design-Build Team may be required to submit calibration documentation to MDOT SHA prior to use. Direct and reverse zenith angles must total 360 Degrees \pm 20 Seconds and be checked and/or adjusted at the start of each day's work.

C. Conventional Survey Requirements

Conventional metes & bounds surveys will be in accordance with the criteria established in the "SHA Specifications for Consulting Engineers Services, Volume II", Section VII - Part I, revised 1986.

1. Field books - All field books used during the project are to be submitted to the

Plats and Surveys Division no less than 60 days prior to completion of the project.

2. Other data - Any other data such as field sketches, maps, hand written notes, etc. shall be submitted to the Plats and Surveys Division.

3. Quality of data - The Design-Build Team shall be responsible for the quality of the field survey work and, at the discretion of the MDOT SHA Plats and Surveys Division, will be required to redo the work, at his expense, if errors or omissions are found. It is incumbent upon the Design-Build Team to obtain information and guidance from the Plats and Surveys Division prior to the commencement of plat development in order to provide a quality product.

D. Metes and Bounds Survey Requirements

1. Scope

Survey of all properties in their entirety, unless otherwise directed by the Administration, shall be made for the correct preparation of metes and bounds plats for all such properties. These surveys shall be tied to centerline, baseline of Right-of-way, or control traverse lines.

2. Specifications

All metes arid bounds surveys shall conform to "Minimum Standards of Practices for Professional Land Surveyors as Adopted by the State of Maryland" specifications for class "A" surveys [COMAR 09.13.06].

3. Monument Recovery

a. Using the mosaic and deed information as guides, THOROUGHLY search for all property corners on the affected properties. If one deed calls for a stone and the adjacent deed calls for a pipe at the same corner, search for both points. Every effort must be made to recover all existing monuments

b. Examine monuments carefully to determine if they have been disturbed or damaged.

c. Along with the monuments found, locate any existing possession evidence such as fence lines, hedge rows, walls, etc. using Electronic Data Collection.

d. Evidence presented by a property owner should be located, even though the deed may not so cite, and the name of said owner shall be recorded.

4. Traversing

a. Do not set rebars for reference traverse points of metes and bounds traverses. Show any traverse lines and points set directly on the same mosaic that is to be sent to the office for processing.

b. When possible, locate corners from existing control traverse points. POL's may be set to accomplish this task. Avoid obtaining a side shot from a "fly" point to locate monumentation.

c. If necessary, traverse around the property or properties and locate all recovered monumentation or evidence of possession. When feasible, utilize the existing monumentation as traverse points.

d. Measure angles to monumentation at the same time that angles to traverse points are observed. This is easily accomplished using the "direct and reverse" method.

e. Distance measurements to monuments are to be conducted the same way as measurements to main traverse points.

f. When sighting property corners, plumb bobs and peanut prisms use is preferred. High precession prism poles with tripods may be utilized when necessary

5. Topography

Any topography required shall be depicted in MDOT SHA survey book. Angles and distances and sketches to topographic features must be shown clearly and legibly in the survey book.

6. Note Keeping

a. Note the size, shape, material, position and condition of each found monument (i.e. 1/2 inch iron pipe, rebar, concrete monument, leaning, chipped, bent, projecting, flush, buried, etc.) in a standard MDOT SHA survey book. If the monument is leaning, note the lean direction and amount of lean.

b. Utility companies often disturb monuments during utility construction. Indicate if any utility lines or poles are near the monument. Do not locate utilities unless directed by the Administration.

c. Note the company name and license number stamped on the monument if any.

d. If the monument was not found, enter a note indicating same. Use the abbreviation "N/ F".

e. If the monument was not searched, enter a note indicating same. Use the abbreviation $"N\!/\!S".$

SPECIAL PROVISIONS

3.24.03.04 Right-of-way Plat Development

A. Computer Software

SCOPE OF WORK FOR DESIGN-BUILD

The Design-Build Team shall utilize MicroStation V8 or later and Bentley MicroStation Civil Extension MCPC to develop and deliver all mosaics, work maps, right-of-way plats and other related CADD products as required. MDOT SHA shall provide upon request to the Design-Build Team MCFC, cell libraries, resource files, seed files, color tables, feature tables, and assistance making such operational.

B. Deliverables

- 1. Required The following shall be required as minimum deliverables:
 - a. Right-of-Way Plats Right-of-way plats shall be prepared as set forth in MDOT "SHA Specifications for Consulting Engineers Services, Volume II", Section VII
 Part I, revised 1986 - Metes and Bounds Right-of-Way Plats" and in accordance with Section 3.23.02.01, Guidelines, as specified herein. The Design-Build Team shall provide MDOT SHA with the electronic copy in MicroStation ".dgn" format and a hard copy on mylar. The hard copy shall contain the seal and signature of the registered Property Line Surveyor or Professional Land Surveyor. The Surveyor signing the plat will be responsible for defending the accuracy of the plat in a court of law.
 - b. Right-of-Way Record Request Proof of submittal of Right of Way Record Request made to the Office of Records & Research and the issuance of the letter prepared by the Office showing its findings must be submitted to the Plats and Surveys Division with the first submission of plan reviews.
 - c. Plat Checklist The Division's Drafters Plat Checklist must be completed and submitted with the initial submission to ensure all MDOT SHA plat standards and requirements have been adhered to. In all cases, each item shall be noted as either being addressed or not applicable. Where items are noted as not being applicable, a brief explanation shall be added to indicate why. In those cases where an item is not able to be addressed due to pending decision(s), specific comments shall be provided indicating the need for the decision(s) and how it is likely to impact the plat content. An updated Plat Checklist shall accompany any plat revised subsequent to and based on those pending decisions.
 - d. COGO and Coordinate Output The Design-Build Team shall provide MDOT SHA baseline/offset reports, area closure reports and coordinate listings for all points computed in the plat development process, including baseline, right-of-way line, easement, property line, and found monumentation points. Baseline reporting shall include associated line bearings and distances, curve data and cardinal point coordinate information. Offset information shall relate computed

parcel points to the baseline stations and associated left or right offset distances. Area closure reports shall provide sufficient information to allow for verification of parcel courses and enclosed areas. Point numbering shall be the same as the point numbering shown for all CADD drawings delivered to MDOT SHA. Reporting precisions shall be as dictated in the Drafters Plat Checklist. Listings shall be delivered to MDOT SHA in both electronic and printed forms.

- e. Deed Descriptions The Design-Build Team shall prepare written deed descriptions in MDOT SHA format for road transfer, conveyances and all Right-of-way and easement acquisitions from railroads, public utilities and government institutions and anytime a description is required by the Administration.
- 2. Deliverable Upon Request Various items are anticipated as being integral to the plat development process but are not necessarily required deliverables. MDOT SHA reserves the right to require delivery of any or all of these items and include the following at no additional cost to the Administration:
- a. Deed Mosaics The Design-Build Team shall create deed mosaics from deed information to facilitate the field survey process. All deed mosaics shall clearly show the point of beginning for deed parcels, bearings and distances of all lines, the monumentation called for, the tax map number, parcel number, property owner's name, the liber and folio of the corresponding deed, and the recording information for any relevant subdivision plats. The mosaic shall also show any known easements and rights-of-way encumbering properties.
- b. Work Maps The Design-Build Team shall create, as part of the plat development process a work map of the project site. The work map shall show all baselines, right-of-way lines, MDOT SHA easements, other public and private easements, (found) property monumentation, etc. The work map shall show all computed points along with their point numbers that are in agreement with the coordinate listing(s). The work map shall be on NAD83/91 datum unless otherwise directed-by MDOT SHA. All line work should be labeled, and each parcel should show the parcel number, property owner's name, the liber and folio of the corresponding deed, and the recording information or any relevant subdivision plats.
- c. Surveyor's Report The consultant shall create a surveyor's report that describes how the baseline(s) of right-of-way, line of division, and existing right-of-way lines and easements were established.

3.24.03.04.01 Right-of-way Plat Revisions

A. General

The Design-Build Team shall perform all revisions to plats, as necessary,

throughout the duration of the contract. Said revisions shall include both changes to plats not yet recorded or otherwise formally acted upon as well as those plats requiring execution of the Replacement Plat process. For any proposed changes to issued plats, the Office of Real Estate shall direct when a Plat Revision is to be executed and when a Plat Replacement is to be executed. It shall be incumbent on the Design-Build Team to familiarize itself and to fully understand under what circumstances the different processes shall apply prior to the issuance of any plats. Any such changes shall require a resubmittal of the changed plat to the Plats and Surveys Division for reissuance.

1 of 1

TERMS AND CONDITIONS

TC SECTION 4 CONTROL OF WORK FOR DESIGN-BUILD

TC-4.01 WORKING DRAWINGS.

(a) General.

DELETE: Paragraph 3 in its entirety.

INSERT: The following:

The Design-Build Team shall prepare working drawings as described in the Standard Specifications, with the exception that the drawings shall not be submitted to the State Highway Administration, but shall be submitted to the Design-Build Team's engineer for review and approval. Following approval by the Design-Build Team's engineer, two copies of the approved drawings shall be forwarded to the Administration. The Administration shall review the drawings to determine that they meet minimum job performance specifications only. Acceptance of the drawings shall not relieve the Contractor of any responsibility in connection therewith and the Administration assumes no responsibility for the accuracy of the drawings. A two-week period will be permitted for SHA review of the working drawings. The approved working drawings shall be stamped and signed by the Design-Build Team's engineer and forwarded to:

Maryland Department of Transportation State Highway Administration Director Office of Highway Development 707 North Calvert Street Baltimore, Maryland 21202

(b) Working Drawings for Falsework Systems.

In the first paragraph, substitute Design-Build Team's Engineer for Engineer.

In the third paragraph, substitute Design-Build Team's Engineer for Engineer.

TERMS AND CONDITIONS

TC SECTION 4 CONTROL OF WORK

TC-4.02 FAILURE TO MAINTAIN PROJECT

ADD: As a third paragraph.

Additionally, an appropriate deduction will be made from the Contractor's next progress estimate for each day or portion thereof that Maintenance of Traffic deficiencies exist, and will continue until the deficiencies are satisfactorily corrected and accepted by the Engineer. Any portion of a day will be assessed a full day deduction. The deduction will be equal to a prorata share of the lump sum price bid for Maintenance of Traffic or an amount prorated from the Engineer's estimate, whichever is more. The amount prorated will be the per diem amount established by using the working days (based upon calendar dates when required) divided into the total value of the bid item or the Engineer's estimate of that item, whichever is more.

The above noted deduction will be assessed on the next progress estimate if:

The Contractor does not take action to correct the deficiencies and properly assume the responsibilities of maintaining the project (as determined by the Engineer) within four hours of receiving a notice to comply with the required maintenance provisions.

The deduction will be equal to the daily prorated share of the lump sum price bid for Maintenance of Traffic or \$1000 per day, whichever is more for each day or portion thereof that the deficiencies exist, and will continue until the deficiencies and proper assumption of the required maintenance provisions are satisfactorily corrected and accepted by the Engineer. The amount of monies deducted will be a permanent deduction and are not recoverable. Upon satisfactory correction of the deficiencies, payment of the Maintenance of Traffic lump sum item will resume.

CONTRACT NO. AX7665D82 LEGAL RELATIONS AND PROGRESS FOR DESIGN-BUILD 1 of 5

TC SECTION 5 LEGAL RELATIONS AND PROGRESS FOR DESIGN-BUILD

TC-5.01 INSURANCE.

100 **DELETE**: All paragraphs under TC-5.01 in their entireties.

INSERT: The following.

.01 **Commercial General Liability**

The requirement of GP-7.14 (Liability Insurance) to submit Certificate of Insurance prior to starting work is modified for Administration Contracts to require the certificate of insurance to be submitted prior to the execution of the Contract.

The Contractor shall maintain in full force and effect third party legal liability insurance necessary to cover claims arising from the Contractor's operations under this agreement which cause damage to the person or property of third parties. The insurance shall be under a standard commercial general liability (CGL) form endorsed as necessary to comply with the above requirements; or other liability insurance form deemed acceptable by the Administration. The State of Maryland shall be listed as an additional named insured on the policy. The limit of liability shall be no less than \$1,000,000 per occurrence/\$2,000,000 general aggregate. The insurance shall be kept in full force and effect until all work has been satisfactorily completed and accepted. The policies shall be endorsed to provide 30 days notice of cancellation or non-renewal to:

Director. Office of Construction State Highway Administration 707 North Calvert Street Baltimore, Maryland 21202

Evidence of insurance shall be provided to the Administration prior to the award of the Contract by means of a Certificate of Insurance with copies of all endorsements attached or, in the event insurance is provided by a policy form other than a CGL form, by certified copy of the complete policy with all endorsements.

Any policy exclusions shall be shown on the face of the Certificate of Insurance.

The Certificate of Insurance shall be accompanied by a document (a copy of State License or letter from insurer) which indicates that the agent signing the certificate is an authorized agent of the insurer.

When specified in the Contract Documents, the Contractor shall carry the type and amounts of insurance in addition to any other forms of insurance or bonds required under the terms of the Contract and these Specifications.

The cost of the insurance will not be measured but the cost will be incidental to the Contract lump sum price.

Contractor and Railroad Public Liability and Property Damage Insurance shall be provided as specified in TC-6.03.

.02 Indemnification

The Design-Build Team shall indemnify, defend and hold the Administration and its officers, directors, employees, agents and consultants from and against all claims, actions, torts, costs, losses, and damages for bodily injury (including sickness, disease or death) and/or tangible property damage (other than to the Work itself) arising out of or resulting from the performance of the Work by the Design-Build Team, any subcontractor, subconsultant, engineer, supplier, any individual or entity directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. Damages covered by the preceding sentence include, but are not limited to, all fees and charges of engineers, attorneys and all other professionals and all mediation, arbitration, court or other dispute resolution costs.

The indemnity obligation set forth in the preceding paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Design-Build Team or any subcontractor, subconsultant, engineer, supplier, or other individual or entity under Workers' Compensation acts, disability benefit acts, or other employee benefit acts.

- .03 Additional Insurance Requirements
 - .03.1 Professional Liability Insurance

Professional Liability Insurance Policy, which covers the Indemnification Clause of this contract (paragraph .02 above), as it relates to errors, omissions, negligent acts or negligent performance in the work performance under this contract by the Designer, its subcontractors, employees and agents. The limitation of the Courts and Judical Proceedings Article states Annotated Code of Maryland Section 5-108(b) shall apply.

SPECIAL PROVISIONS

LEGAL RELATIONS AND PROGRESS FOR DESIGN-BUILD

.03.2 Workers' Compensation Insurance

Workers' compensation, as required by the laws of the State of Maryland, including Employer's Liability Coverage and coverage for the benefits set forth under the U.S. Longshoremen and Harbor Workers' Compensation Act, the Jones Act, and other federal laws where applicable.

.03.3 Comprehensive Automobile Liability Insurance

Comprehensive Business Automobile Liability covering use of any motor vehicle to be used in conjunction with this contract, including hired automobiles and nonowned automobiles. Loading and unloading of any motor vehicle must be covered by endorsement to the automobile liability policy or policies.

- .03.4 Administrative & General Provisions
 - a. Each policy, with the exception of Workers' Compensation and Professional Liability Insurance, shall name the State Highway Administration.
 - b. Defense of Claims

Each insurance policy shall include a provision requiring the carrier to investigate and defend all named insured against any and all claims for death, bodily injury or property damage, even if groundless.

c. Compliance

The Design-Build Team shall be in compliance with this Section provided it procures either one policy or insurance covering all work under the contract or separate insurance policies for all segments constituting the entire project. In either case, a certificate of insurance must be filed for each policy with the Administration indicating that all required insurance has been obtained.

The Design-Build Team is responsible for assuring that insurance policies required by this Contract comply with all the requirements. The Design-Build Team is also responsible to determine that all subconsultants, subcontractors, suppliers, and all other individuals or entities performing Work for the Project carry all applicable insurance coverages set forth in this section, including, in all cases, Workers' Compensation, Automobile, and Commercial General Liability Insurance. The Design-Build Team shall indemnify and hold harmless the Administration from any claims arising from the failure to fulfill said responsibilities.

d. Reporting Provisions

Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Administration, its officers, agents and employees.

e. Separate Application

The insurance provided by the Design-Build Team shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

.03.5 Notice of Cancellation or Modification

All policies of insurance provided in this Section shall be endorsed to provide that the insurance company shall notify the Administration, the Design-Build Team, and each named insured at least thirty (30) days prior to the effective date of any cancellation or modification of such policies.

TC-5.03 SUBCONTRACTING AND SUBCONTRACTORS

102 **<u>INSERT</u>**: The following before the paragraph titled '**Subcontractors Prompt Payment**.'

Percentage of Own Workforce Required. The Design-Build Team must perform at least fifty percent of the value of the on-site construction work with its own workforce, not including the percent goal required in the contract proposal to be performed by DBE's. The Designer must perform at least fifty percent (50%) of the value of the design work with its own workforce, not including the work required by DBE's.

106 <u>ADD</u>: The following sections at the end of section 'TC-5.05 DETERMINATION AND EXTENSION OF CONTRACT TIME.'

TC-5.06 OWNERSHIP OF DOCUMENTS

All plans, specifications, inspection records, or other documents ("Documents") generated by the Design-Build Team and all consultants, subcontractors, suppliers, manufacturers performing Work on the Project are the property of the Administration. Upon request by the Administration, the Design-Build Team or any other person or entity performing Work will produce and deliver such Documents as requested, both in hard copy and electronic format.

LEGAL RELATIONS AND PROGRESS FOR DESIGN-BUILD

TC-5.07 ACCESS TO AND RETENTION OF RECORDS

The Design-Build Team and its employees and Subcontractors shall make all project records available for inspection by the Project Manager and all other persons authorized by the Administration, and shall permit such representatives to interview employees during working hours. Project records include daily time reports, records of force account work, quality control or assurance documentation, inspectors reports, employment records, payrolls, equal opportunity records, construction conference records, partnering records, and any other documents in any way related to the Project substantiating payment. These records shall be retained at least three years after final acceptance of the project.

TERMS AND CONDITIONS

TC SECTION 7 PAYMENT FOR DESIGN-BUILD

TC-7.01 MEASUREMENT OF QUANTITIES

DELETE: This section in its entirety.

INSERT: The following:

Unless specifically noted herein, payment for all work within the Scope of Work shall be included in the applicable Lump Sum Prices shown on the Proposal Form and as defined elsewhere in this Request for Proposals. The Design-Build Team shall disregard all references in the Standard Specifications to actual quantities, Contract items, Contract unit prices, and any measurement or payment method other than inclusion in the Lump Sum Prices.

Lump Sum for Right-of-way Acquisition shall be full compensation for all services and preparation of all documentation for all Project ROW acquisition, easement acquisition, and related relocation assistance for the Project. Offer of just compensation paid to property owners for any needed Right-of-way are included in this Lump Sum.

Lump Sum for TMDL Design shall be full compensation for all engineering, design, research, site investigation, labor, equipment and materials, and all incidentals necessary to complete the site investigation and data collection, design and obtain permitting/approvals for this project.

Lump Sum for TMDL Credit Construction shall be full compensation for all construction, labor, equipment and materials, and all incidentals necessary to complete the construction of this project and for performing all work under the contract in a complete and acceptable manner and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the prosecution thereof.

TC-7.02 PAYMENT ALLOWANCES FOR STORED MATERIALS

DELETE: This section in its entirety.

INSERT: The following statement:

Costs associated with the storage of materials shall be included in the Lump Sum for TMDL Credit Construction.

TC-7.05 PROGRESS PAYMENTS

(a) Current Estimate.

DELETE: (3) Variable Retainage in its entirety.

INSERT: The following:

(3) Variable Retainage. The Contract will be subject to a variable retainage based upon the Administration's performance evaluations of the successful proposer and a minimum retainage for the landscaping items of work. Those qualifying may have retainage reduced upon request of the Contractor with consent of surety. This request shall be processed through the District Engineer. Landscaping items of work are not eligible to have a reduction in retainage below the minimum percentage outlined below. If at any time during the performance of the work, the evaluation of the Contractor changes, retainage reduction may be reconsidered.

Minimum Qualifications are as follows: After 50 percent project completion and upon request, Contractors with 'A' evaluations for the last two years may be reduced from 5 percent to 1 percent. Project completion percentage will be based upon actual work completed (excluding monies paid for stored materials). An interim evaluation of the current project would need to be completed and would need to be an 'A'.

At 50 percent project completion and upon request, Contractors with 'B' evaluations or any combination of 'A' and 'B' evaluations for the last two years may be reduced from 5 percent to 2.5 percent, and remain at that level until released upon final payment. Project completion percentage will be based upon actual work completed (excluding monies paid for stored materials). An interim evaluation of the current project would need to completed and would need to be an 'A' or 'B'.

Contractors with 'C' evaluations or any combination of 'C' and 'D' evaluation for the past two years will begin and remain at 5 percent for the life of the project.

Contractors with a 'D' evaluation for the last two years will begin at 5 percent. Project performance will be evaluated monthly with the retainage being raised to 10 percent for continued 'D' performance.

New Proposer. Contractors who have not been previously rated by the Administration may be eligible for a reduction in retainage. To be eligible, their past performance on highway and bridge work shall be documented by the government agency with whom they had a contract and their performance shall be documented on Administration forms. Contractors who do not fit into the above criteria would require a 5 percent retainage throughout the life of the Contract.

(b) Semi-Final Estimate Payments.

129 **DELETE:** Delete the entirety of subsections (1), (2), and (3).

INSERT: The following:

SPECIAL PROVISIONS PAYMENT FOR DESIGN-BUILD

- (1) Upon completion of the project and the acceptance by the Administration for maintenance, the Administration, at the Contractor's request and with the consent of surety, will initiate a Memorandum of Action by the Director, Office of Construction, State Highway Administration, authorizing semi-final payment. Such a semi-final estimate payment will be based upon: (a) quantities the Administration has computed and set up as proposed final quantities, and (b) a reasonably accurate estimate for those quantities for which the Administration has not yet completed computations. The quantities that the Administration sets forth as proposed final quantities shall be so designated. To arrive at the amount of the semi-final estimate, the following will be deducted from the apparent estimated value of the Contract: (a) total of all amounts previously paid to the Contractor as current estimates, (b) the retainage for landscaping items of work, (c) sums deemed chargeable against the Contractor including penalties and liquidated damages, and (d) as an additional retainage, a sum not less than 1 percent of the total value of the Contract, excluding landscaping items of work.
- (2) In cases where there has been substantial completion of the project and there are remaining only inconsequential or minor work items such as painting, seeding, mulching, or planting to be completed and such items cannot be completed for an extended period of time because of seasonal or weather conditions, a semi-final inspection will be made. If the work completed is found to be satisfactory, then there is deemed to be a partial acceptance on the entire project except for the uncompleted work items. Upon the above referred to partial acceptance, the Administration, within 30 days from such partial acceptance, upon request of the Contractor and with consent of surety, shall pay to the Contractor, what is hereby known as a partial semifinal estimate payment. Such a semi-final estimate will be based upon: (a) quantities the Administration has computed and set up as proposed final quantities, and (b) a reasonably accurate estimate for those quantities for which the Administration has not yet completed computations. The quantities that the Administration sets forth as proposed final quantities shall be so designated. To arrive at the amount of the semi-final payment, the following will be deducted from the apparent estimated value of the Contract: (a) total of all amounts previously paid to the Contractor as current estimates, (b) the retainage for landscaping items of work, (c) sums deemed chargeable against the Contractor including penalties and liquidated damages, and (d) as an additional retainage, a sum not less than 1 percent of the total value of the Contract, excluding landscaping items of work.
- (3) If all retained funds have not been paid to an escrow agent, as provided for in (a)(4), the Administration shall, upon payment of the semi-final estimate, place the remaining retainage in a interest-bearing escrow account, as designated and on such terms and conditions as specified by the procurement officer. At the time of the final payment, any retainage due, and any interest accrued on the retainage due from the time of payment of the semi-final estimate, shall be paid to the Contractor.
- 130 **ADD:** The following at the end of Section TC-7.05:

(c) Application for Progress Payment.

In order to receive payment, the Design-Build Team shall submit a written Application for Progress payment to the Administration on a monthly basis. Receipts, invoices, and other vouchers, including invoices from subcontractors shall be included. Invoices shall be based on the proportionate quantities of the various classes of work satisfactorily designed, checked, and completed or incorporated in the work in accordance with the Schedule of Work and the value thereof determined from the Contract Progress Payment Breakdown as described in TC-7.11. If the Application for Progress Payment is inconsistent with the Payment Breakdown, the Projected Schedule of Payments, or the actual progress of work, the Application must include a written explanation for such inconsistencies and the Administration reserves the right to withhold the applicable payment in whole or in part.

(d) **Payment of Invoices.**

All invoice payments shall be subject to correction in subsequent invoices and payments and upon final acceptance and payment. No payment shall be made when, in the judgment of the Administration, the work is not proceeding in accordance with the provisions of the Contract or when the total value of the work done since the last estimate amounts to less than \$500.00. Portions of the progress payment may be withheld in accordance with the Contract provisions.

(e) **Payment for Changes.**

Differing site conditions, changes, and extra work meeting the requirements of this Contract will be paid using the following methods as appropriate:

- a. Unit prices agreed upon in the order authorizing the work.
- b. An agreed upon lump sum amount.
- c. On a Force Account basis, if agreement cannot be reached and if directed by the Administration. Refer to TC-7.03

TC-7.10 COST BREAKDOWN FOR PRICE PROPOSAL REVIEW

7.10.01Submittal of Cost Breakdown

Concurrent with the submission of the Price Proposal, the Design-Build Team shall submit to the Administration an itemized Cost Breakdown and supporting documentation to be used to evaluate Price Proposals. This breakdown shall present a realistic and documentable presentation of the costs for the major elements of work that comprise the lump sum prices for the work as defined elsewhere in this Request for Proposals. At a minimum, the following Lump Sum Items shall be included for each respective Lump Sum:

Lump Sum for Right-of-way Acquisition - The Design-Build Team shall submit to the Administration a Cost Breakdown of the Lump Sum for Right-of-way Acquisition item. This cost breakdown shall include:

- Design-Builder Administrative Costs
- Design-Builder Offer of Just Compensation costs per site

Lump Sum for TMDL Credit Design - The Design-Build Team shall submit to the Administration a Cost Breakdown of the Lump Sum for TMDL Credit Design. This cost breakdown shall include the name and fee for each consultant and subconsultant firm that is included in this item.

Lump Sum for TMDL Credit Construction - The Design-Build Team shall submit to the Administration a Cost Breakdown of the Lump Sum for TMDL Credit Construction. This cost breakdown shall include:

- BMP and/or Outfall Number for each location that is included in this item and the associated lump sum cost
- Engineer's Office lump sum cost

The sites and associated costs as outlined above are for Price Proposal review only and does not constitute acceptance or approval of site locations or costs by the Administration. It shall be the design-builder's responsibility to select alternative sites should any of the sites noted in the above cost breakdown be found to be too impactful to the environment and/or schedule, the Design-Builder shall be responsible to select alternative site(s) to achieve the number of credit acres the Design-Builder identified in their Price Proposal.

The Administration may require additional items to be identified and included prior to approval.

Note that to enable the Administration to make effective progress payments, the successful Design-Build Team will be required to submit for approval the more detailed Progress Payment Breakdown described in TC-7.11. All progress payments will be based on an approved Progress Payment Breakdown.

TC-7.11 CONSTRUCTION PROGRESS PAYMENT BREAKDOWN AND SCHEDULE OF PAYMENTS

7.11.01 Submittal of Progress Payment for Lump Sum for Right-of-way Acquisition

The Administration will pay the Contractor for actual Right-of-way Administrative costs incurred and for offers of just compensation for all Right-of-way offers accepted by the property owner or posted in court.

Payment of Administrative Costs incurred for an offer shall be based upon validated invoices for services with supporting documentation for that offer, a copy thereof shall be made a part of the documented records for the project. Invoices for Administrative costs shall be submitted once an offer, approved by the Administration, has been made to the property owner and may only be submitted for those services directly related to that offer. If the Administration notifies the Design-Builder in writing to not proceed with an offer or acquisition, the Design-Builder shall within 60 calendar days of the date of letter submit to the Administration an invoice with supporting documentation

for payment of Administrative Costs incurred, a copy thereof shall be made a part of the documented records for the project. Only services directly related to that offer or acquisition to the date of the Administration's letter may be submitted.

Payment of Offer of Just Compensation shall be based upon validated invoices with all specific reports and supporting documentation (including but not limited to Form AP-152 (Tax Payer Identification Number)) for review and approval during the acquisition process and shall be made a part of the documented records for the project. Invoices for an Offer of Just Compensation shall be submitted once an Offer of Just Compensation, approved by the Administration, has been made and accepted by the property owner or once an Offer of Just Compensation has been posted in court.

7.11.02 Submittal of Progress Payment Breakdown for Lump Sum TMDL Credit Design and Lump Sum for TMDL Credit Construction

The successful Design-Build Team shall submit to the Administration an itemized Progress Payment Breakdown and supporting documentation to be used as a basis for payment. The breakdown shall be sent to the District Engineer. No progress payment will be made until such time that this breakdown has been accepted by the Administration. The Design-Build Team shall submit additional updates to the Payment Breakdown as the design and construction progresses and as directed by the Administration. The Administration reserves the right to request additional detail from the Design-Build Team in order to process progress payments. The breakdown shall be in MS Excel format and include at a minimum, the following items:

7.11.02.01 Progress Payment Breakdown of Lump Sum for TMDL Credit Design

Progress Payment Breakdown of Lump Sum for TMDL Credit Design shall be comprised of:



TMDL Credit Design Initial Payment - A single initial payment of forty (40) percent of the Lump Sum for TMDL Credit Design shown on the Proposal Form.



TMDL Credit Design Monthly Payment - The remainder of the Lump Sum for TMDL Credit Design shown on the Proposal Form, less the forty (40) percent initial payment, shall be prorated over the life of the project and shall be invoiced monthly starting the month after the payment of the TMDL Credit Design Initial Payment.

7.11.02.02 Progress Payment Breakdown of Lump Sum for TMDL Credit Construction

Progress Payment Breakdown of Lump Sum for TMDL Credit Construction shall be comprised of the Engineers Office item and per the Site Payment Item for each of the Design-Builder's sites. The Engineer Office item will not be measured but will be paid for at the Contract lump sum price for the pertinent Engineers Office specified. Payment of fifty (50) percent of the Contract lump sum price for the Engineers Office will be payable on the first estimate subsequent to complete installation of the Engineers office. The remaining 50 percent will be prorated and paid in equal amounts on each subsequent monthly estimate. The number of months used for prorating will be the number estimated to complete the work. The final month's prorata amount will not be paid until the office is removed and the area is restored. The payment will be full compensation for site preparation, utility costs, all specified furnishings, to provide, equip, clean, maintain, insure, remove and dispose of the office, restore the site, recycling, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

A Site Payment Lump Sum Item will be established specifically for each site. The Site Payment Item for each of the Design-Builder's sites shall be established upon the Design-Builder obtaining all required NEPA approval, all permits and environmental approvals, design approvals, certification that site Right-of-way is clear, and a site is ready to proceed toward construction. At that time the Design-Builder shall submit in writing the number of credits that that site location will achieve for review and approval by the Administration. The associated site cost for each site shall be calculated by taking the Lump Sum for TMDL Credit Construction price in the Design-Builder's Price Proposal, less the Engineer Office item, and dividing it by the number of credit acres listed in the Design-Builder's Price Proposal. That number will then be multiplied by the number of credit acres submitted in writing for that site by the Design-Builder.

Progress Payment for the Site Payment Lump Sum Item establish for each site, as outlined above, shall be comprised of two payments:

- TMDL Credit Construction Initial Site Payment A single initial payment of fifty (50) percent of the established total value of the Site Payment Lump Sum Item shall be paid after establishment of the Site Payment Lump Sum Item for that site as discussed above. The payment will be made on the first estimate subsequent to establishment of the Site Payment Item for that site.
- TMDL Credit Construction Final Site Payment When the Contractor has completed an Outfall and Stream Restoration site and the Administration has accepted it for maintenance or when the Contractor has completed a SWM site and the As-Built has been submitted per the requirements of this RFP and received structural acceptance in writing from the Administrations and Approval Authority, a single final payment of the remainder of the of Site Payment Item (the Site Payment Lump Sum Item less the TMDL Credit Construction Initial Site Payment) for that site shall be made.

The Design-Build Team shall use the Progress Payment Breakdown format in preparing and documenting its Applications for Payment. The Administration will use the Cost Breakdown to assist in evaluating requests for payment. All costs associated with preparation, submission, or revision of the Progress Payment Breakdown will not be considered as an item for payment, but shall be included in the Design-Build Team's Lump Sum for TMDL Credit Design price.

The successful Design-Build Team will be required to submit an Initial Critical Path Method Project Schedule Design-Build Activities Chart within thirty (30) working days after notification of Award. This is in addition to the requirements outlined in Section 109- Critical Path Method Project Schedule Design-Build.

7.11.03 Review and Approval

Within 14 working days after Execution of the Contract, the Design-Builder shall submit their initial Cost Breakdown. Within 14 working days after the receipt of the Design-Builder's initial Cost Breakdown, beginning on the day after receipt of the breakdown, the Administration shall approve the Cost Breakdown or return it to the Design-Build Team with deficiencies noted. The Administration will not approve a Contract Cost Breakdown that is unbalanced. The Design-Build Team shall then submit the Cost Breakdown until an acceptable Cost Breakdown is approved. The Design-Build Team is responsible for incorporating time for submission and approval of the Cost Breakdown in its Schedule of Work.

7.11.04 Justification of Cost Breakdown or Projected Schedule of Payments

The Administration may require the Design-Build Team to provide explanations and supporting documentation if the Cost Breakdown or Projected Schedule of Payments indicate unbalancing or do not reasonably reflect the actual cost of performing the work or the value of work received by the Administration.

SPECIAL PROVISIONSCONTRACT NO. AX7665D82STREAM RESTORATION SITE AS-BUILT CERTIFICATION1 of 3

CATEGORY 100 PRELIMINARY

STREAM RESTORATION SITE AS-BUILT CERTIFICATION

DESCRIPTION. Inspect stream restoration site during specified stages of construction, and furnish a completed Stream Restoration Site As-Built (AB) Certification Package to the Administration certifying that the Stream Restoration Site has been constructed as specified in the Contract Documents. Completion of the Stream Restoration Site As-Built Certification Package may only be performed by an approved As-Built Inspector. Submit a Final Stream Restoration Certification package to the Administration within 45 calendar days of completing construction of all stream restoration and stabilization areas in the Contract, including landscape installation.

MATERIALS. Not applicable.

CONSTRUCTION. Inspect the stream restoration project. Ensure that the stream restoration features are constructed as specified in the Contract Documents.

As-Built (AB) Inspector. Furnish an approved AB Inspector to complete the As-Built Certification. AB Inspectors require licensure in the State of Maryland as a Professional Engineer or Professional Land Surveyor, and must be experienced in stream restoration and construction.

To request approval, furnish a one-page resume for the AB Inspector by two weeks after the Notice of Award. The resume shall include the AB Inspector's name, contact information, relevant professional license(s), employer's name, and relevant work history. Failure to receive approval for the AB Inspector or to monitor the specified construction stages will be grounds for replacement. This resume will be approved by the Office of Highway Development (OHD).

Stream Restoration Site As-Built Certification Package. The Certification Package certifies that the Stream Restoration Site has been constructed as specified. The submitted package shall include, at a minimum, in-stream structures with accompanying photographs, a copy of greenline revision plans that include as-built survey information, and a copy of stand alone as-built plans. The green-line revision plans shall include the as-built survey information superimposed on the Approved plans including all approved revisions. Stand alone as-built plans shall be prepared depicting the as-built information only. Green-line revision plans and stand alone as-built plans shall include, at a minimum, Grading Plan Sheet(s) and certified structure tables.

SPECIAL PROVISIONSCONTRACT NO. AX7665D82STREAM RESTORATION SITE AS-BUILT CERTIFICATION2 of 3

Submit the As-built Certification Package to the Administration's OHD, Innovative Contracting Division:

Mr. Sean Campion Chief, Innovative Contracting Division Office of Highway Development 707 North Calvert Street Baltimore, MD 21202

Include the Contract name and number in each submittal.

CADD Work and Files. All work and files shall adhere to the CADD Standards established by the Administration.

The Administration will provide the MicroStation CADD files of the Approved plans to facilitate the duties of the AB Inspector. As-built features shall be clearly shown and differentiable from all other features.

Stages for As-Built Inspections by the AB Inspector. Perform inspections and written verification of the as-built condition of the Stream Restoration Site as follows:

- (a) Stream Restoration. The AB Inspector will provide written documentation of the as-built condition of the elements shown on the plans, cross-sections, and profiles apart of the Design-Builder's package. Documentation of the as-built stream change excavation shall be included with as-built submittal for each work area. The Design-Builder will have the AB Inspector on the project site to verify and record work that was accomplished and recorded, prior to the completion of that structure. A work area is not considered complete until the appropriate AB Certification for that work area has been received, reviewed and approved by the Administration, including OHD. The As-Built steps may not be removed or changed without authorization from OHD.
- (b) Surveys, Computations, Survey logs, and Revision Requirements. Upon completion of the project, survey the as-built condition and provide green-line revisions that include the following items:
 - (1) Contours or Spot shots. As-built contours shall be displayed in plan view using one-foot contour intervals. Spot shots, sufficient to convey accuracy of grading, will be allowed in lieu of or in addition to contours.
 - (2) Structures. As-built structure limits shall be displayed in plan view. Annotation of structure limits shall be included in structure tables and/or profile and cross section in accordance with approved plans.
 - (3) Monuments. Survey location and elevation of all cross-section monuments and display and label on as-built drawings.
 - (4) Tolerances. Tolerance limits established in the project must be adhered to.
 - (5) Submission Requirements. Provide MicroStation CADD files containing the As-Built Plans and references. Deliver three hard-copies and one digital copy PDF format of the

SPECIAL PROVISIONSCONTRACT NO. AX7665D82STREAM RESTORATION SITE AS-BUILT CERTIFICATION3 of 3

Stream Restoration Site As-Built Certification Package to the Administration, including the OHD. Incomplete Stream Restoration Site As-Built Certification Packages will not be accepted.

When the Stream Restoration Site does not meet the design parameters, reconstruct, re-inspect, resurvey and recalculate deficient aspects of the Stream Restoration Site and furnish the revised information in the Stream Restoration As-Built Certification Package.

MEASUREMENT AND PAYMENT. Stream Restoration Site As-Built Certification will not be measured but will be paid for at the Contract lump sum price for TMDL Credit Construction. The payment will be full compensation for inspection, photographs, documentation, surveys, computations, plan revisions, completion and submission of the Stream Restoration Site As-Built Certification Package, and for all material, labor, equipment, tools, and incidentals necessary to complete the work. Modifications to rejected Stream Restoration Site As-Built Certification Packages, including any associated corrective construction, reconstruction, grading, inspection, planting, stabilization, surveying, engineering analysis and services, and resubmittals will be at no additional cost to the Administration.

SPECIAL PROVISIONSCONTRACT NO. AX7665D82OUTFALL STABALIZATION SITE AS-BUILT CERTIFICATION1 of 3

CATEGORY 100 PRELIMINARY

OUTFALL STABILIZATION SITE AS-BUILT CERTIFICATION

DESCRIPTION. Inspect outfall stabalization site during specified stages of construction, and furnish a completed Outfall Stabalization Site As-Built (AB) Certification Package to the Administration certifying that the Outfall Stabalization Site has been constructed as specified in the Contract Documents. Completion of the Outfall Stabalization Site As-Built Certification Package may only be performed by an approved As-Built Inspector. Submit a Final Outfall Restoration Certification package to the Administration within 45 calendar days of completing construction of all outfall stabalization and stabilization areas in the Contract, including landscape installation.

MATERIALS. Not applicable.

CONSTRUCTION. Inspect the outfall stabalization project. Ensure that the outfall stabalization features are constructed as specified in the Contract Documents.

As-Built (AB) Inspector. Furnish an approved AB Inspector to complete the As-Built Certification. AB Inspectors require licensure in the State of Maryland as a Professional Engineer or Professional Land Surveyor, and must be experienced in outfall stabalization and construction.

To request approval, furnish a one-page resume for the AB Inspector by two weeks after the Notice of Award. The resume shall include the AB Inspector's name, contact information, relevant professional license(s), employer's name, and relevant work history. Failure to receive approval for the AB Inspector or to monitor the specified construction stages will be grounds for replacement. This resume will be approved by the Office of Highway Development (OHD).

Outfall Stabalization Site As-Built Certification Package. The Certification Package certifies that the Outfall Stabalization Site has been constructed as specified. The submitted package shall include, at a minimum, outfall structures with accompanying photographs, a copy of greenline revision plans that include as-built survey information, and a copy of stand alone as-built plans. The green-line revision plans shall include the as-built survey information superimposed on the Approved plans including all approved revisions. Stand alone as-built plans shall be prepared depicting the as-built information only. Green-line revision plans and stand alone as-built plans shall include, at a minimum, Grading Plan Sheet(s) and certified structure tables.

SPECIAL PROVISIONSCONTRACT NO. AX7665D82OUTFALL STABALIZATION SITE AS-BUILT CERTIFICATION2 of 3

Submit the As-built Certification Package to the Administration's OHD, Innovative Contracting Division:

Mr. Sean Campion Chief, Innovative Contracting Division Office of Highway Development 707 North Calvert Street Baltimore, MD 21202

Include the Contract name and number in each submittal.

CADD Work and Files. All work and files shall adhere to the CADD Standards established by the Administration.

The Administration will provide the MicroStation CADD files of the Approved plans to facilitate the duties of the AB Inspector. As-built features shall be clearly shown and differentiable from all other features.

Stages for As-Built Inspections by the AB Inspector. Perform inspections and written verification of the as-built condition of the Outfall Stabalization Site as follows:

- (a) Outfall Stabalization. The AB Inspector will provide written documentation of the asbuilt condition of the elements shown on the plans, cross-sections, and profiles apart of the Design-Builder's package. Documentation of the as-built outfall change excavation shall be included with as-built submittal for each work area. The Design-Builder will have the AB Inspector on the project site to verify and record work that was accomplished and recorded, prior to the completion of that structure. A work area is not considered complete until the appropriate AB Certification for that work area has been received, reviewed and approved by the Administration, including OHD. The As-Built steps may not be removed or changed without authorization from OHD.
- (b) Surveys, Computations, Survey logs, and Revision Requirements. Upon completion of the project, survey the as-built condition and provide green-line revisions that include the following items:
 - (1) Contours or Spot shots. As-built contours shall be displayed in plan view using one-foot contour intervals. Spot shots, sufficient to convey accuracy of grading, will be allowed in lieu of or in addition to contours.
 - (2) Structures. As-built structure limits shall be displayed in plan view. Annotation of structure limits shall be included in structure tables and/or profile and cross section in accordance with approved plans.
 - (3) Monuments. Survey location and elevation of all cross-section monuments and display and label on as-built drawings.
 - (4) Tolerances. Tolerance limits established in the project must be adhered to.
 - (5) Submission Requirements. Provide MicroStation CADD files containing the As-Built Plans and references. Deliver three hard-copies and one digital copy PDF format of the

SPECIAL PROVISIONSCONTRACT NO. AX7665D82OUTFALL STABALIZATION SITE AS-BUILT CERTIFICATION3 of 3

Outfall Stabalization Site As-Built Certification Package to the Administration, including the OHD. Incomplete Outfall Stabalization Site As-Built Certification Packages will not be accepted.

When the Outfall Stabalization Site does not meet the design parameters, reconstruct, re-inspect, resurvey and recalculate deficient aspects of the Outfall Stabalization Site and furnish the revised information in the Outfall Stabalization As-Built Certification Package.

MEASUREMENT AND PAYMENT. Outfall Stabalization Site As-Built Certification will not be measured but will be paid for at the Contract lump sum price for TMDL Credit Construction. The payment will be full compensation for inspection, photographs, documentation, surveys, computations, plan revisions, completion and submission of the Outfall Stabalization Site As-Built Certification Package, and for all material, labor, equipment, tools, and incidentals necessary to complete the work. Modifications to rejected Outfall Stabalization Site As-Built Certification Packages, including any associated corrective construction, reconstruction, grading, inspection, planting, stabilization, surveying, engineering analysis and services, and resubmittals will be at no additional cost to the Administration.

SPECIAL PROVISIONS 103 — ENGINEERS OFFICE DESIGN-BUILD

CONTRACT NO. AX7665D82 1 of 8

CATEGORY 100 PRELIMINARY

SECTION 103 – ENGINEERS OFFICE

144 **DELETE:** 103.01 to 103.04 in its entirety.

INSERT: The following.

103.01 DESCRIPTION. Furnish, clean, and maintain in good condition an Engineers office at an approved location within the immediate vicinity of the project. The office shall be separate from any offices used by the Contractor, and it and all items therein shall be for the exclusive use of the Administration's Engineers and Inspectors. Rented properties that conform to the type of office specified in the Contract Documents will be acceptable.

103.02 MATERIALS. Not applicable.

103.03 CONSTRUCTION. Set up, equip, and make the office ready for use at least five days prior to commencement of construction work on the project. Progress payments for professional services may be made prior to the commencement of construction work. Leave the office and appurtenances in place until all field records are complete. Upon removal of the office, restore the location to a condition acceptable to the Engineer.

Unless otherwise specified, the office and all furnished equipment and accessories shall become the property of the Contractor at the completion of the project.

103.03.01 Mobile Housing Unit. Provide a mobile housing unit having floor space of at least 100 ft^2 and window area of at least 10 ft^2 . Ensure it is entirely enclosed and waterproofed and has a door that locks. Provide a table $36 \times 48 \times 40$ in. high and one closet equipped with a lock. Furnish two keys for each lock. Provide satisfactory heating and cooling. Relocate the unit as directed.

103.03.02 Handicap Accessibility. When handicap accessibility is necessary, comply with the Federal Register-Volume 56 No. 144-Americans with Disability Act (ADA) Accessibility Guidelines for Buildings and Facilities.

103.03.03 Mobile Office Trailers. Anchor in accordance with the manufacturer's recommendations. Office trailers, as defined under the Industrial Building and Mobile Act of Maryland, shall be approved by the Maryland Department of Housing and Community Development and bear the Maryland Certification Insignia in the interior of the office.

103.03.04 Quality Control Laboratory. Section 915.

103.03.05 Requirements for all Offices.

- (a) Entirely enclosed, waterproofed, and completely insulated to at least an R11 rating.
- (b) Double thick floor with building paper placed in between the floor layers.

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- (c) Finished inside and outside as approved.
- (d) A ceiling height of at least 7 ft, a pitched roof, and a ventilating louver in each gable.
- (e) A 4 x 1 ft sign with the message "ENGINEERS OFFICE STATE HIGHWAY ADMINISTRATION" attached to or mounted in front of the office. The sign shall have a black background and have white lettering at least 3 in. high.
- (f) A 5 x 7 in. no smoking sign posted on the outside of each entrance to the office, plant laboratory, and mobile housing unit.
- (g) Interior and exterior doors equipped with different key locks. Interior doors keyed alike. Exterior doors keyed alike. An additional dead bolt lock for each exterior door. Four keys for each interior and exterior lock.
- (h) Windows capable of being opened and closed. Equip with latches, screens, and venetian blinds or shades.
- (i) Electrified in accordance with national and State electrical codes with satisfactory artificial lighting and lighting services. Ensure an illumination level of at least 75 ft-c.
- (j) Equipment capable of heating the office to at least 70 F and cooling to at least 78 F.
- (k) A restroom facility in accordance with the State Department of Health and Mental Hygiene or other authorities having jurisdiction. Connect to water and sewage or a well and septic system. Provide a pressurized water system capable of maintaining at least 20 psi. Furnish a wash basin, water closet, soap holder, paper towel holder, and mirror.
- (1) Maintain the facilities in a clean and sanitary condition. Sweep the floor and remove the trash daily. Damp mop and wax the floor biweekly. Clean the interior and exterior of all windows monthly. Perform all work on an as needed basis and when requested.
- (m) Protect the Administration and Administration employees from any loss or damage to their property stored in the Engineers Office. Provide protection in the amount of twenty thousand dollars (\$20 000), nondeductible, per each occurrence, for any loss or damage due to fire, theft, vandalism, storms, or floods. Complete the reimbursement, replacement, or repair within 30 days from the date the Engineer reports the loss.
- (n) A parking area for the exclusive use of Administration employees. Provide the specified number of spaces. Post signs to designate the assigned parking areas. Stabilize the parking area as directed.
- (o) Fire extinguishers of a dry chemical or multi-purpose ABC type (at least 10 lb), equipped with a visual air pressure gauge, and maintained in accordance with OSHA standards.
- (**p**) A 24 unit first aid kit furnished and maintained as described in the Code of Federal Regulations, Title 29 Subpart D, Section 1926.50(d)2.

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- (q) A 4 x 8 ft waterproof bulletin board. Place in an easily accessible area within the project limits and conspicuously displayed to all employees. Post and maintain all pertinent and required notices for the duration of the project.
- (r) Touch-tone telephones equipped with an answering device capable of answering, recording, storing, and playing back incoming messages at least 30 minutes in length and recording outgoing messages up to 15 seconds in length. The device shall be voice activated, beeperless, record as long as the speaker speaks, and play back recorded messages without dial tone or pauses.

Replace stolen equipment and equipment that becomes defective or for any other reason does not function as intended. Provide an equal or better unit within eight hours after notification. Replacement shall be at no additional cost to the Administration. Post emergency telephone numbers at a conspicuous location.

- (s) One 12 ft^3 electric refrigerator.
- (t) An approved cassette player/recorder with cassettes or digital recording device.
- (u) One paper copier machine, with automatic document feed capable of printing at least 15 copies per minute and documents of up to 11 x 17 in. Supply paper and provide service as needed.
- (v) One sanitary electric water cooler, including bottled water and disposable cups.
- (w) One paper shredder capable of shredding at least 10 sheets (20 lb bond) at a time. Throat width of at least 12 in. Speed of at least 20 feet per minute. Auto reverse or auto stop for paper jams. Power of at least 115 v.

103.03.06 Computer System. Furnish <u>2</u> desktop computers and <u>0</u> laptop computers.

General Requirements.

- (a) IBM compatible with an Intel or AMD processor.
- (b) Minimum hard drive storage of 500 GB (gigabyte).
- (c) One CD-RW drive (re-writable CD-ROM).
- (d) Operating System. Minimum Microsoft® Windows 7. The computer system will not be acceptable unless all Microsoft Windows Critical Updates are installed.
- (e) Printer. When an Engineers Office is specified, furnish a color all-in-one laser printer/scanner/copier/fax with at least 64 MB of RAM and meeting the following minimum requirements:
 - (1) Input paper capacity of 150 sheets.

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- (2) Automatic document feed of 35 page capacity.
- (3) Printer resolution up to 600 X 2400 dpi, and a print speed (color) of at least 15 ppm.
- (4) Scanner resolution must be capable of 1200 x 2400 dpi optical. Built in Copier resolution must be capable of up to 600 X 600 dpi. Copier speed of at least 15 ppm.
- (5) Fax speed of at least 2 sec / page.
- (f) Software. Supply all manuals and software on original disks for retention in the Engineers Office or Administration facility for the duration of the Contract.
 - (1) Microsoft[®] Office 2007 Professional for Windows[™] or later.
 - (2) Install and configure antivirus/antispyware software to perform an automatic update when the microcomputer system connects to the internet. (Antivirus/AntiSpyware software approved for Administration web email: *Norton, McAfee, Sophos, or ETrust.) *Norton Internet Security includes Antivirus and a Personal Firewall.
- (g) Internet Access. Provide unlimited internet service approved by the Engineer. Where available, provide internet high-speed service (DSL or cable). With DSL or cable internet service, provide an external router device. Provide firewall software to protect the computer from security intrusions.
- (h) Accessories.
 - (1) When an Engineers office is specified, provide a standard computer workstation with minimum desk space of 60 X 30 in. and a padded swivel type chair with armrests.
 - (2) 8-1/2 X 11 in. xerographic paper as needed.
 - (3) Toner and ink as needed.
 - (4) Maintenance agreement to provide for possible down time.
 - (5) Physical security system to deter theft of the computer and components.
 - (6) Three 4-GB USB flash drive storage devices.
 - (7) Blank recordable CD-RW media as needed.

Desktop Specific Requirements.

(a) Minimum processor speed of 3.0 GHz.

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 - (**b**) Minimum of 4 GB RAM.
 - (c) Enhanced 101 key keyboard with wrist rest.
 - (d) Super video graphics accelerator (SVGA).
 - (e) Mouse and mouse pad.
 - (f) Flat-panel LCD monitor (19 in. minimum) meeting Energy Star requirements.
 - (g) Uninterruptible power supply (UPS).

Laptop Specific Requirements.

- (a) Must meet military standard of durability MIL-STD 810G
- (b) Minimum processor speed of 2.4 GHz.
- (c) Minimum 2 GB SDRAM.
- (d) Minimum 15" 1024x768 (XGA), daylight-readable, 500nits (cd/m2) LCD display.
- (e) Power Supply. Two lithium ion battery packs with overcharge protection, an AC adaptor, and a vehicle DC power adaptor that operates the laptop and simultaneously charges the laptop's internal battery.
- (f) Carrying Case.
- (g) Printer. When an Engineers Office is not specified, furnish a portable B&W printer with DC power adapter and having a minimum resolution of 1200 dpi, at least 8 MB of RAM, and a print speed of at least 15 ppm. (Note: A color printer may be substituted if a digital camera is specified. Refer to SP-Section 113).
- (h) Internet Service. If an Engineers office is not specified, furnish the laptop with an internal wireless broadband card and broadband internet service.

Have the computer system furnished complete and ready to use at least five days prior tto the payment of the first progress payment.

If for any reason the system fails to operate, is stolen, or is otherwise unavailable for use, it shall be replaced or repaired within 48 hours.

When the computer system is no longer required, the Construction Management software system including original user/operator guide manuals, program disks, and all data files (including those stored on USB flash drives, CD-R's, etc.) will be removed by the Engineer and delivered to the

103 — ENGINEERS OFFICE DESIGN-BUILD

District Engineer and become the property of the Administration. The remaining computer systems shall remain the property of the Contractor.

103.03.07 Facsimile (FAX) Transceiver for all Offices.

Provide a FAX machine that:

- (a) Is connected to a dedicated phone jack with a separate independent telephone line and phone number.
- (**b**) Is in accordance and compatible with CCITT Group Transmission Standards (see specific line items for compatibility requirements).
- (c) Uses public switched telephone networks and standard two wire leased line through RJ11C jacks or similar devices.
- (d) Transmits at least 9600 BPS with automatic stepdown to compensate for phone line conditions.
- (e) Is capable of transmitting a standard 8-1/2 x 11 in. page within 20 seconds through a clear phone line, based on CCITT #1 test chart.
- (f) Is capable of two levels of resolution with contrast control:
 - (1) Standard 200/96 lines
 - (2) Fine 200/196 lines
- (g) Is capable of self-test and providing activity reports with page headers, time, and date.
- (h) Uses standard copy paper for receiving transmissions.
- (i) Has an automatic document feeder tray (see specific requirements for each transceiver class).
- (j) Has handsets.
- (k) Has automatic answer, receive, and disconnect features.
- (1) Provide the FCC registration number, ringer equivalence, and connection circuitry for each transceiver.

103.03.08 Specific Field Office Requirements.

Type A Engineers Office – Standard office trailer with at least 200 ft^2 of floor area under one roof.

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Type B Engineers Office – Standard office trailer with at least 400 ft² of floor area under one roof.

Type C Engineers Office – Standard office trailer with at least 700 ft² of floor area under one roof.

Type D Engineers Office – One-story structure containing at least 1300 ft² of floor area under one roof. Modular construction is acceptable. Office trailers are not acceptable.

ENGINEERS OFFICE			ITEM	
Α	B	С	D	
_	1	2	_	Inner Offices–100 ft ² each
_	1	1	_	General office area
_	—	_	4	Inner Offices–120 ft ² each
_	_	_	1	Conference room–240 ft ²
_	_	_	1	Storeroom with shelves–120 ft ²
1	1	1	2	Restroom, 30 ft ²
_	1	1	1	Inner office ingress and egress to the other rooms
3	4	4	5	32 x 60 in. Executive type desks with center drawers
3	4	4	5	Swivel chairs, padded with arm rests
1	1	1	1	30 x 72 in. slant top drafting table and stool, approximately 40 in. high at the front edge
1	2	3	6	30 x 72 in. folding utility table, 30 in. high
_	_	_	1	12-person conference table with padded chairs
2	6	10	12	Additional padded chairs
1	2	2	3	Plan racks
1	1	1	2	Coat racks
1	1	1	1	3 x 6 ft blackboard or whiteboard
1	2	3	3	Electronic desk calculators with memory and tape readout (including manuals, and tapes as needed)
1	1	2	6	Legal size steel filing cabinets, 4 drawer fire resistant (D label) with locks
_	2	2	2	Standard size steel filing cabinets, 4 drawer with locks
1	1	1	5	Bookcases having four shelves 36 x 12 in.
1	2	2	2	Closets, full height, measuring at least 24 x 30 in., equipped with locks, and at least two shelves in each
1	1	1	_	Utility cabinet with 3 adjustable shelves
1	1	1	_	Overhead cabinet at least 8 ft long, 15 in. deep, and 18 in. high
1	1	1	2	Fire extinguisher as specified in 103.03.05

Table 103 Specific Requirements

SPECIAL PROVISIONS 103 — ENGINEERS OFFICE DESIGN-BUILD

1	2	2	4	Telephones with separate lines, as specified in 103.03.05
2	2	2	2	Battery-operated smoke detectors
4	8	10	15	Designated parking spaces

103.03.09 Recycling. Recycling of recyclable paper (bond, newsprint, cardboard, mixed paper, packaging material and packaging), bottles (glass and plastic), and aluminum cans will be required at the Engineer's Office and the Contractor's facilities for the project.

Furnish approved containers, and remove the material from the site on an approved schedule or as directed. All material shall be taken to an authorized recycling facility. Maintain a log for the duration of the project documenting the type of materials recycled. The log shall include the types of material, date, time, location of facility, and signature line. Furnish a copy of the log at the completion of the project and upon request.

The Contractor shall be considered the owner of any profit and be responsible for all incurred costs.

103.04 MEASUREMENT AND PAYMENT. Payment for all work for Engineers Office for Design-Build Projects shall be included in the Credit Construction Lump Sum.

Computer. The computer system will not be measured but the cost will be incidental to the Contract price for the Engineers Office item. If an item for Engineers Office is not specified, the cost of the computer system will be incidental to the payment for Mobilization. In absence of either item, payment will be incidental to the other items specified in the Contract Documents

SPECIAL PROVISIONS 104.01 — TRAFFIC CONTROL PLAN

CATEGORY 100 PRELIMINARY

SECTION 104 — MAINTENANCE OF TRAFFIC

104.01 TRAFFIC CONTROL PLAN (TCP)

104.01.01 DESCRIPTION.

DELETE: The fourth paragraph sentence "Refer to contract Documents for Work Restrictions." in its entirety.

INSERT: The following for District 2.

Work Restrictions.

Work is not permitted on the following holidays indicated below with an "X", nor is work permitted on the day immediately preceding and immediately following the holidays indicated below with an "X".

- New Year's Day, January 1
- Martin Luther King's Birthday, the third Monday in January
- President's Day, the third Monday in February
- \boxtimes Good Friday
- Easter Weekend
- Memorial Day, the last Monday in May
- Independence Day, July 4
- Labor Day, the first Monday in September
- Columbus Day, the second Monday in October
- Veterans Day, November 11
- Thanksgiving Day, the fourth Thursday in November
- Christmas Day, December 25

Work is not permitted on the following weekend days indicated below with an "X".

\boxtimes
\bigtriangledown

Saturdays, unless prior written approval is given by the Engineer

Sundays, unless prior written approval is given by the Engineer

104.01 — TRAFFIC CONTROL PLAN

CONTRACT NO.AX7665D82 2 of 5

TEMPORARY LANE OR SHOULDER CLOSURE SCHEDULE					
ROADWAY	# LANE(S) / SHOULDER CAN BE CLOSED	DAY OF THE WEEK	CLOSURE PERIOD (TIME OF DAY)		
All Roads	1/1	Mon - Fri	9 am to 3 pm		

ADD: The following after the last paragraph, "Any monetary savings...and the Administration."

When closing, or opening a lane or shoulder on freeways, expressways, and roadways with posted speed ≥ 55 mph, ensure a work vehicle is closely followed by a protection vehicle (PV) during installation and removal of temporary traffic control devices. The PV shall consist of a work vehicle with approved flashing lights, either a truck-mounted attenuator (TMA) with support structure designed for attaching the system to the work vehicle or a trailer truck-mounted attenuator (TTMA) designed for attaching the system to the work vehicle by a Pintle hook and an arrow panel (arrow mode for multilane roadways and caution mode on two-lane, two-way roadways).

Temporary Traffic Control for shoulder work along freeways, expressways, and roadways with posted speed ≥ 55 mph shall include the use of a PV. The PV shall be outfitted with a TMA or

104.01 — TRAFFIC CONTROL PLAN

TTMA as noted above and be positioned on the shoulder to protect the work area throughout the duration of the shoulder work operation.

The work vehicle size and method of attachment shall be as specified in the TMA/TTMA manufacturer's specification as tested under NCHRP and/or MASH Test Level 3.

When a temporary lane or shoulder closure is in effect, begin work within one hour after the lane is closed. For any delay, greater than one hour and no work in progress, remove the lane/shoulder closure. Ensure the Traffic Manager attends the Pre-Construction, Pre-Structural Steel Erection, Pre-Concrete Placement, Pre-MOT Shift, and Pre-Paving Meetings and is prepared to competently discuss traffic control, the Traffic Control Plan (TCP), and the procedures to be implemented for lane closures.

All closures shall be in conformance with the approved TCP and at the direction of the Traffic Manager and the Engineer.

Workers and equipment, including temporary traffic control devices needed for setting up a lane closure or restriction, are prohibited in the lane/shoulder to be closed or restricted before the time permitted in the Contract Documents unless otherwise approved by the Engineer.

Temporary traffic control devices to be used for lane/shoulder closure may be placed on the shoulder of the roadway by workers no earlier than _____minutes prior to the actual time lane/shoulder closure or restriction is permitted. When temporary traffic control devices are being installed, ensure that all work vehicles involved in the installation display flashing lights that provide a 360-degree visibility of the vehicles. These lights shall remain on until the full installation of TTC devices is complete. Temporary traffic signs may be displayed to traffic at this time.

Workers shall not enter any lane open to traffic. Workers may be present on shoulders to prepare for lane closure setup no earlier than _____ minutes prior to the actual time lane/ shoulder closures or restrictions are permitted. During preparation for the lane closure, ensure that all work vehicles at the site and involved in the installation of the lane closure or restriction display flashing lights that provide 360-degree visibility of the vehicles, as required by MD 104.01-18B. These lights shall remain on while the vehicle remains in the work zone and until the full implementation of the road closure or restriction is complete.

Restore all temporary lane or shoulder closures at the end of the closure period and ensure that no travel lane has been reduced to less than 11 ft on expressways, freeways and 10 ft on other roadways. Prior to opening the closed lane or shoulder, clear the lane or shoulder of all material, equipment, and debris.

Failure to restore full traffic capacity within the time specified will result in a deduction assessed in conformance with the following.

This is in addition to the requirements specified in TC-4.02.

104.01 — TRAFFIC CONTROL PLAN

The lane closure penalties for freeways are categorized by the District in which they are located.

For Districts 1, 2 and 6, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR FREEWAYS			
ELAPSED TIME, (MINUTES)	DEDUCTION		
For 1 Lane Closures			
1 - 10	\$ 100.00		
Each minute over 10	\$50.00 per minute (In addition to original 10 minute deduction)		
Fo	r 2 or more Lane Closures		
1 - 10	\$ 200.00		
Each minute over 10	\$100.00 per minute (In addition to original 10 minute deduction)		

For Districts 3, 4, 5 and 7, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR FREEWAYS					
ELAPSED TIME, (MINUTES)	DEDUCTION				
	For 1 Lane Closures				
1 - 10	\$ 1,000.00				
Each minute over 10	\$500.00 per minute				
Lach minute over 10	(In addition to original 10 minute deduction)				
Fo	r 2 or more Lane Closures				
1 – 10	\$ 2,000.00				
Each minute over 10	\$1,000.00 per minute				
	(In addition to original 10 minute deduction)				

The lane closure penalties for other roads are categorized by intersection Level of Service. The penalty for other roads with Level of Service D, E or F is greater than that for Level of Service A, B or C.

SPECIAL PROVISIONS 104.01 — TRAFFIC CONTROL PLAN

For Level of Service A, B or C, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR OTHER ROADS					
ELAPSED TIME, (MINUTES)	DEDUCTION				
	For 1 Lane Closures				
1 – 10	\$ 150.00				
Over 10	\$75.00 per minute (In addition to the original 10 minute deduction)				
Fo	or 2 or more Lane Closures				
1 - 10	\$ 300.00				
Over 10	\$150.00 per minute (In addition to the original 10 minute deduction)				

For Level of Service D, E or F, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR OTHER ROADS				
ELAPSED TIME, (MINUTES)	DEDUCTION			
For 1 Lane Closures				
1 - 10	\$ 300.00			
Over 10	\$150.00 per minute (In addition to the original 10 minute deduction)			
Fa	or 2 or more Lane Closures			
1 - 10	\$ 600.00			
Over 10	\$300.00 per minute (In addition to the original 10 minute deduction)			

To modify the work restrictions, submit a request to the Engineer in writing with at least 72 hours notice. Do not implement any changes until written approval from the Engineer is received. Include a copy of the original work restrictions with the written request. The Engineer also reserves the right to modify or expand the methods of traffic control or working hours as specified in the Contract Documents.

CATEGORY 100 PRELIMINARY

SECTION 104 — MAINTENANCE OF TRAFFIC

104.01 TRAFFIC CONTROL PLAN (TCP)

104.01.01 DESCRIPTION.

DELETE: The fourth paragraph sentence "Refer to contract Documents for Work Restrictions." in its entirety.

INSERT: The following for District 4.

Work Restrictions.

Work is not permitted on the following holidays indicated below with an "X", nor is work permitted on the day immediately preceding and immediately following the holidays indicated below with an "X".

- New Year's Day, January 1
- Martin Luther King's Birthday, the third Monday in January
- President's Day, the third Monday in February
- Good Friday
- Easter Weekend
- Memorial Day, the last Monday in May
- Independence Day, July 4
- Labor Day, the first Monday in September
- Columbus Day, the second Monday in October
- Veterans Day, November 11
- Thanksgiving Day, the fourth Thursday in November
- Christmas Day, December 25

Work is not permitted on the following weekend days indicated below with an "X".

]	Saturdays,	unless p	prior	written	approval	is	given	by	the	Engineer	
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Sundays, unless prior written approval is given by the Engineer

104.01 — TRAFFIC CONTROL PLAN

CONTRACT NO. AX7665D82 2 of 5

TEMPORARY LANE OR SHOULDER CLOSURE SCHEDULE						
ROADWAY	# LANE(S) / SHOULDER CAN BE CLOSED	DAY OF THE WEEK	CLOSURE PERIOD (TIME OF DAY)			
I-70, I-195, and MD 295*	1/1	MON-FRI	9 AM to 3 PM			
	1/1	SUN-THURS	7 PM to 5 AM next day			
	2/1	SUN-THURS	10 PM to 5 AM next day			
I-83 from City line to Western Run	0/1	MON-FRI	9 AM to 3 PM			
	1/1	SUN-THURS	7 PM to 5 AM next day			
	2/1	SUN-THURS	10 PM to 5 AM next day			
I-83 from Western Run to PA line	0/1	MON-FRI	9 AM to 3 PM			
NB only	1/1	SUN-THURS	8 PM to 12 PM next day			
SB only	0/1	MON-FRI	9 AM to 3 PM			
	1/1	SUN	7 PM to 5 AM next day			
	1/1	MON-THURS	10AM to 5 AM next day			
	1/1	FRI	10 AM to 3 PM			
I-795 from I-695 to MD 940 NB only	0/1 1/1 1/1 2/1	MON-FRI MON-FRI SUN-THURS SUN-THURS	9 AM to 3 PM 9 AM to 2 PM 8 PM to 5 AM next day 10 PM to 5 AM next day			
SB only	0/1	MON-FRI	9 AM to 3 PM			
	1/1	MON-FRI	10 AM to 3 PM			
	1/1	SUN-THURS	7 PM to 5 AM next day			
	2/1	SUN-THURS	9 PM to 5 AM next day			
I-795 from MD 940 to MD 140	0/1	MON-FRI	9 AM to 3 PM			
	1/1	SUN-THUR	9 PM to 5 AM next day			
I-695 from AA County line to I-95 (Exit 33)*	0/1	MON-FRI	9 AM to 3 PM			
	1/1	SUN-THUR	8 PM to 5 AM next day			
	2/1	SUN-THURS	10 PM to 5 AM next day			
MD 695 from I-95 to Chesaco Ave. (from MD 7 to MD 702)	0/1 1/1 2/1	MON-FRI SUN-THUR SUN-THURS	9 AM to 3 PM 7 PM to 5 AM next day 9 PM to 5 AM next day			
MD 695 from Chesaco Ave. to MD 158	1/1	MON-THURS	9 AM to 3 PM			
	1/1	FRIDAY	9 AM to 1 PM			
	1/1	SUN-THURS	7 PM to 5 AM next day			

SPECIAL PROVISIONS 104.01 — TRAFFIC CONTROL PLAN

CONTRACT NO. AX7665D82 3 of 5

I-95*	0/1	MON-FRI	9 AM to 3 PM
1-75*	0/1		/
	1/1	SUN-THUR	7 PM to 5 AM next day
* No closures from 2 hours prior to 2	2/1	SUN-THURS	9 PM to 5 AM next day
hours after stadium events along I-95 and			
MD 295. No double lane closures IL I-			
695 AA CO Line to Exit 15.			
ALL OTHER ROADWAYS			
DAY**	1/1	MON-FRI	9 AM to 3PM
NIGHT	1/1	SUN-THUR	9 PM to 5 AM next day
NIGHT	2/1	SUN-THUR	10 PM to 5 AM next day

All lane closure permits are required to be submitted to the office of Assistant District Engineer for Traffic District 4, (2) working days in advance of work.

** No day time closures will be allowed at the following locations. The working hours will be 9:00pm to 5:00am. (District 4 Traffic will consider a single lane closure up to 2 hours on all roads during the daytime hours upon request and with an approved permit.)

ROUTE **LOCATION**

BALTIMORE COUNTY

MD 7	Golden Ring Road to Rossville Boulevard
MD 26	City Line to Brenbrook Road
MD 45	Burke Road to Timonium Road
MD 129	Ramp to I-695 Outer Loop to Hooks Lane
MD 140	City Line to Tollgate Road

- MD 144 City Line to North Rolling Road
- MD 45 (York Road) to Charmuth Road MD 146
- MD 147 City Line to Joppa Road
- Ramps to I-695 OL /IL to Putty Hill Avenue US 1
- **US** 1 Taylor Avenue to Putty Hill Avenue

HARFORD COUNTY

US 1 Business	Tollgate Road to MD 924 (Main Street)
MD 22	MD 924 (Main St) to MD 155 (Level Road)
MD 24	MD 7 (Philadelphia Road) to Boulton Street
MD 922	MD 924 (Main St) to US 1 Business
MD 924 (Main St)	US 1 Business. To US 1 Bus (Broadway)
MD 924 (Bond St)	US 1 Bus (Broadway to US 1 Business

ADD: The following after the last paragraph, "Any monetary savings...and the Administration."

When closing, or opening a lane or shoulder on freeways, expressways, and roadways with posted speed \geq 55 mph, ensure a work vehicle is closely followed by a protection vehicle (PV) during installation and removal of temporary traffic control devices. The PV shall consist of a work vehicle with approved flashing lights, either a truck-mounted attenuator (TMA) with support structure designed for attaching the system to the work vehicle or a trailer truck-mounted attenuator (TTMA) designed for attaching the system to the work vehicle by a Pintle hook and an arrow panel (arrow mode for multilane roadways and caution mode on two-lane, two-way roadways).

Temporary Traffic Control for shoulder work along freeways, expressways, and roadways with posted speed \geq 55 mph shall include the use of a PV. The PV shall be outfitted with a TMA or TTMA as noted above and be positioned on the shoulder to protect the work area throughout the duration of the shoulder work operation.

The work vehicle size and method of attachment shall be as specified in the TMA/TTMA manufacturer's specification as tested under NCHRP and/or MASH Test Level 3.

When a temporary lane or shoulder closure is in effect, begin work within one hour after the lane is closed. For any delay, greater than one hour and no work in progress, remove the lane/shoulder closure. Ensure the Traffic Manager attends the Pre-Construction, Pre-Structural Steel Erection, Pre-Concrete Placement, Pre-MOT Shift, and Pre-Paving Meetings and is prepared to competently discuss traffic control, the Traffic Control Plan (TCP), and the procedures to be implemented for lane closures.

All closures shall be in conformance with the approved TCP and at the direction of the Traffic Manager and the Engineer.

Workers and equipment, including temporary traffic control devices needed for setting up a lane closure or restriction, are prohibited in the lane/shoulder to be closed or restricted before the time permitted in the Contract Documents unless otherwise approved by the Engineer.

Temporary traffic control devices to be used for lane/shoulder closure may be placed on the shoulder of the roadway by workers no earlier than <u>30</u> minutes prior to the actual time lane/shoulder closure or restriction is permitted. When temporary traffic control devices are being installed, ensure that all work vehicles involved in the installation display flashing lights that provide a 360-degree visibility of the vehicles. These lights shall remain on until the full installation of TTC devices is complete. Temporary traffic signs may be displayed to traffic at this time.

Workers shall not enter any lane open to traffic. Workers may be present on shoulders to prepare for lane closure setup no earlier than <u>30</u> minutes prior to the actual time lane/ shoulder closures or restrictions are permitted. During preparation for the lane closure, ensure that all work vehicles at the site and involved in the installation of the lane closure or restriction display flashing lights that provide 360-degree visibility of the vehicles, as required by MD 104.01-18B. These lights shall remain on while the vehicle remains in the work zone and until the full implementation of the road closure or restriction is complete.

SPECIAL PROVISIONS 104.01 — TRAFFIC CONTROL PLAN

Restore all temporary lane or shoulder closures at the end of the closure period and ensure that no travel lane has been reduced to less than 11 ft on expressways, freeways and 10 ft on other roadways. Prior to opening the closed lane or shoulder, clear the lane or shoulder of all material, equipment, and debris.

Failure to restore full traffic capacity within the time specified will result in a deduction assessed in conformance with the following.

This is in addition to the requirements specified in TC-4.02.

To modify the work restrictions, submit a request to the Engineer in writing with at least 72 hours notice. Do not implement any changes until written approval from the Engineer is received. Include a copy of the original work restrictions with the written request. The Engineer also reserves the right to modify or expand the methods of traffic control or working hours as specified in the Contract Documents.

CATEGORY 100 PRELIMINARY

SECTION 104 — MAINTENANCE OF TRAFFIC

104.01 TRAFFIC CONTROL PLAN (TCP)

104.01.01 DESCRIPTION.

<u>DELETE</u>: The fourth paragraph sentence "Refer to contract Documents for Work Restrictions." in its entirety.

INSERT: The following for District 5.

Work Restrictions.

Work is not permitted on the following holidays indicated below with an "X", nor is work permitted on the day immediately preceding and immediately following the holidays indicated below with an "X".

- New Year's Day, January 1
 - Martin Luther King's Birthday, the third Monday in January
 - President's Day, the third Monday in February
- \boxtimes Good Friday
- Easter Weekend
- Memorial Day, the last Monday in May
- Independence Day, July 4
- Labor Day, the first Monday in September
- Columbus Day, the second Monday in October
- Veterans Day, November 11
- Thanksgiving Day, the fourth Thursday in November
- Christmas Day, December 25

Work is not permitted on the following weekend days indicated below with an "X".

\boxtimes	Saturdays, unless prior written approval is given by the Engineer
\square	Sundays, unless prior written approval is given by the Engineer

104.01 — TRAFFIC CONTROL PLAN

CONTRACT NO. AX7665D82 2 of 6

TEMPORARY LANE OR SHOULDER CLOSURE SCHEDULE			
ROADWAY	# LANE(S) / SHOULDER CAN BE CLOSED	DAY OF THE WEEK	CLOSURE PERIOD (TIME OF DAY)
US 50 (Exit 21 thru Exit 27), I-97 (2-lane sections), I-695 (less than 4-lane sections), MD 295 (2-lane sections), US 301 (PG Co. line to Glen Albin Rd. – south of LaPlata) *US 50:NO daytime work on Fridays or Weekends from May 1 st to Sept. 30 th and no WB on Sunday nights	0/0 0/1 0/0 0/1 1/1 1/1 2/1 (if at least 3 lanes in one direction)	Mon-Fri. Mon-Fri. Sun-Thur Sun-Thur Mon-Fri. Mon-Fri.	5am-9am 9am-3pm 3pm-8pm 8pm-10pm 10pm – 12 midnight 12 midnight - 5am 12 midnight - 5am
* I-695 (4-lane sections)	Must maintain at least 3 through lanes in each direction, otherwise, only night work allowed		
* MD 2 (from south of MD 214 to Balt. City line), MD 3 , MD 100 (HoCo line to MD 170), MD 295	Must maintain at least 2 through lanes in each direction, otherwise, only night work allowed		
* MD 2 (from Calvert Co. Line to MD 214)	Must maintain at least one through lane in each direction (no day-time flagging), otherwise only night work allowed		
Continued on next page			

104.01 — TRAFFIC CONTROL PLAN

 MD 2/4 (thru Prince Frederick), MD 5 Bus., MD 5 (from US 301 to St. Charles Pkwy, from Mohawk Dr. to MD 236, and from MD 243 to MD 246), MD 6 (from Walnut Hill Road to MD 488), MD 70, MD 100 (WB from MD 177 to MD 10), MD 178 (from MD 450 to Bestgate Rd.), MD 214 (east of Galewood Drive), MD 228 (from US 301 to Stavors Rd.), MD 231 (from MD 2/4 to MD 765), MD 235 (MD 2/4 to MD 765), MD 235 (MD 245 to MD 712), MD 246 (from Saratoga Dr. to MD 235), MD 435, MD 450 (from MD 178 to east side of Severn River [Naval Academy Bridge]), MD 665, MD 	0/0 0/1 0/0 0/1 1/1 1/1	Mon-Fri. Mon-Fri. Sun-Thur Sun-Thur Mon-Fri.	5am-9am 9am-3pm 3pm-8pm 8pm-10pm 10pm – 12 midnight 12 midnight – 5 am
713 (from MD 175 to Arundel Mills Blvd.), MD 765 (from MD 2/4 near MD 402 to Old Field			
Lane)	0/0	Mon-Fri	5am-9am
All other roads	1/1 0/0 1/1 1/1	Mon-Fri Mon-Fri Sun-Thur Mon-Fri.	9am-3pm 3pm-8pm 8pm-12 midnight 12 midnight – 5am
	2/1 (if at least 3 lanes in one direction)	Mon-Fri.	12 midnight - 5am

ADD: The following after the last paragraph, "Any monetary savings...and the Administration."

When closing, or opening a lane or shoulder on freeways, expressways, and roadways with posted speed ≥ 55 mph, ensure a work vehicle is closely followed by a protection vehicle (PV) during installation and removal of temporary traffic control devices. The PV shall consist of a work vehicle with approved flashing lights, either a truck-mounted attenuator (TMA) with support structure designed for attaching the system to the work vehicle or a trailer truck-mounted attenuator (TTMA) designed for attaching the system to the work vehicle by a Pintle hook and an arrow panel (arrow mode for multilane roadways and caution mode on two-lane, two-way roadways).

Temporary Traffic Control for shoulder work along freeways, expressways, and roadways with posted speed \geq 55 mph shall include the use of a PV. The PV shall be

outfitted with a TMA or TTMA as noted above and be positioned on the shoulder to protect the work area throughout the duration of the shoulder work operation.

The work vehicle size and method of attachment shall be as specified in the TMA/TTMA manufacturer's specification as tested under NCHRP and/or MASH Test Level 3.

When a temporary lane or shoulder closure is in effect, begin work within one hour after the lane is closed. For any delay, greater than one hour and no work in progress, remove the lane/shoulder closure. Ensure the Traffic Manager attends the Pre-Construction, Pre-Structural Steel Erection, Pre-Concrete Placement, Pre-MOT Shift, and Pre-Paving Meetings and is prepared to competently discuss traffic control, the Traffic Control Plan (TCP), and the procedures to be implemented for lane closures.

All closures shall be in conformance with the approved TCP and at the direction of the Traffic Manager and the Engineer.

Workers and equipment, including temporary traffic control devices needed for setting up a lane closure or restriction, are prohibited in the lane/shoulder to be closed or restricted before the time permitted in the Contract Documents unless otherwise approved by the Engineer.

Temporary traffic control devices to be used for lane/shoulder closure may be placed on the shoulder of the roadway by workers no earlier than <u>30</u> minutes prior to the actual time lane/shoulder closure or restriction is permitted. When temporary traffic control devices are being installed, ensure that all work vehicles involved in the installation display flashing lights that provide a 360-degree visibility of the vehicles. These lights shall remain on until the full installation of TTC devices is complete. Temporary traffic signs may be displayed to traffic at this time.

Workers shall not enter any lane open to traffic. Workers may be present on shoulders to prepare for lane closure setup no earlier than <u>30</u> minutes prior to the actual time lane/ shoulder closures or restrictions are permitted. During preparation for the lane closure, ensure that all work vehicles at the site and involved in the installation of the lane closure or restriction display flashing lights that provide 360-degree visibility of the vehicles, as required by MD 104.01-18B. These lights shall remain on while the vehicle remains in the work zone and until the full implementation of the road closure or restriction is complete.

Restore all temporary lane or shoulder closures at the end of the closure period and ensure that no travel lane has been reduced to less than 11 ft on expressways, freeways and 10 ft on other roadways. Prior to opening the closed lane or shoulder, clear the lane or shoulder of all material, equipment, and debris.

Failure to restore full traffic capacity within the time specified will result in a deduction assessed in conformance with the following.

This is in addition to the requirements specified in TC-4.02.

The lane closure penalties for freeways are categorized by the District in which they are located.

For Districts 1, 2 and 6, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR FREEWAYS			
ELAPSED TIME, (Minutes)	DEDUCTION		
For 1 Lane Closures			
1 – 10	\$ 100.00		
Each minute over 10	\$50.00 per minute (In addition to original 10 minute deduction)		
For 2 or more Lane Closures			
1 - 10	\$ 200.00		
Each minute over 10	\$100.00 per minute (In addition to original 10 minute deduction)		

For Districts 3, 4, 5 and 7, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR FREEWAYS			
ELAPSED TIME, (MINUTES)	DEDUCTION		
For 1 Lane Closures			
1 - 10	\$ 1,000.00		
Each minute over 10	\$500.00 per minute (In addition to original 10 minute deduction)		
For 2 or more Lane Closures			
1 - 10	\$ 2,000.00		
Each minute over 10 \$1,000.00 per minute (In addition to original 10 minute de			

The lane closure penalties for other roads are categorized by intersection Level of Service. The penalty for other roads with Level of Service D, E or F is greater than that for Level of Service A, B or C.

SPECIAL PROVISIONS 104.01 — TRAFFIC CONTROL PLAN

For Level of Service A, B or C, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR OTHER ROADS			
ELAPSED TIME, (MINUTES)	DEDUCTION		
For 1 Lane Closures			
1 - 10	\$ 150.00		
Over 10	\$75.00 per minute (In addition to the original 10 minute deduction)		
For 2 or more Lane Closures			
1 - 10	\$ 300.00		
Over 10 \$150.00 per minute (In addition to the original 10 minute dedu			

For Level of Service D, E or F, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR OTHER ROADS				
ELAPSED TIME, (MINUTES)	DEDUCTION			
For 1 Lane Closures				
1 - 10	\$ 300.00			
Over 10	\$150.00 per minute			
Over 10	(In addition to the original 10 minute deduction)			
Fe	For 2 or more Lane Closures			
1 - 10	\$ 600.00			
Over 10	\$300.00 per minute			
	(In addition to the original 10 minute deduction)			

To modify the work restrictions, submit a request to the Engineer in writing with at least 72 hours notice. Do not implement any changes until written approval from the Engineer is received. Include a copy of the original work restrictions with the written request. The Engineer also reserves the right to modify or expand the methods of traffic control or working hours as specified in the Contract Documents.

CATEGORY 100 PRELIMINARY

SECTION 104 — MAINTENANCE OF TRAFFIC

104.01 TRAFFIC CONTROL PLAN (TCP)

104.01.01 DESCRIPTION.

DELETE: The fourth paragraph sentence "Refer to contract Documents for Work Restrictions." in its entirety.

INSERT: The following for District 6.

Work Restrictions.

Work is not permitted on the following holidays indicated below with an "X", nor is work permitted on the day immediately preceding and immediately following the holidays indicated below with an "X".

- New Year's Day, January 1
 -] Martin Luther King's Birthday, the third Monday in January
 - President's Day, the third Monday in February
- \boxtimes Good Friday
- Easter Weekend
- Memorial Day, the last Monday in May
- Independence Day, July 4
- Labor Day, the first Monday in September
- Columbus Day, the second Monday in October
- Veterans Day, November 11
- Thanksgiving Day, the fourth Thursday in November
- Christmas Day, December 25

Work is not permitted on the following weekend days indicated below with an "X".

- Saturdays, unless prior written approval is given by the Engineer
- Sundays, unless prior written approval is given by the Engineer

104.01 — TRAFFIC CONTROL PLAN

CONTRACT NO. AX7665D82 2 of 6

TEMPORARY LANE OR SHOULDER CLOSURE SCHEDULE			
ROADWAY	# LANE(S) /	DAY OF	CLOSURE
	SHOULDER CAN	THE	PERIOD
	BE CLOSED	WEEK	(TIME OF DAY)
Washington County			
I-68	0/1	Any	All
	1/1	Mon-Thurs	Sunrise to Sunset
	1/1	Friday	Sunrise to 12 PM
	1/1	Any	9 PM to 5 AM
I-81	0/1	Any	All
	1/1	Sun-Thurs	9 PM to 5 AM
MD 63 to Frederick Co Line I-70 Eastbound	0/1 1/1 1/1	Any Mon-Thurs Sunday	All 8 PM to 5 AM 11 PM to 5 AM (Monday only)
I-70 Westbound	0/1	Any	All
	1/1	Mon-Thurs	8 PM to 5 AM
	1/1	Sunday	8 PM to Sunrise
From PA State Line to MD 63 I-70 Eastbound	0/1 1/1 1/1	Any Mon-Thurs Sunday	All 8 PM to 5 AM 11 PM to 5 AM (Monday only)
I-70 Westbound	0/1 1/1 1/1	Any Mon-Thurs Sunday	All 8 PM to 5 AM 11 PM to 5 AM (Monday only)
US 340 Eastbound	0/1	Any	All
	1/1	Mon-Thurs	9 AM to 5 PM
	1/1	Sunday	8 PM to 5 AM
US 340 Westbound	0/1	Any	All
	1/1	Mon-Thurs	Sunrise to 3 PM

CONTRACT NO. AX7665D82 3 of 6

104.01 — TRAFFIC CONTROL PLAN

US 40, I-70 at Exit 9 to MD 68	0/1	Any	All
	1/1	Mon-Friday	Sunrise to Sunset
US 40, MD 68 to Fred Co Line	0/1	Any	All
	1/1	Mon-Friday	9 AM to 3 PM
MD 58	0/1	Any	All
	1/1	Mon-Friday	8 AM to 4 PM
MD 60, MD 64, MD 65,	0/1	Any	All
MD 66, MD 144, US 11,	1/1	Mon-Friday	9 AM to 3 PM
US 40 Alt, US 522			
All Other Washington County	0/1	Any	All
Roads	1/1	Any	Sunrise to Sunset

ADD: The following after the last paragraph, "Any monetary savings...and the Administration."

When closing, or opening a lane or shoulder on freeways, expressways, and roadways with posted speed ≥ 55 mph, ensure a work vehicle is closely followed by a protection vehicle (PV) during installation and removal of temporary traffic control devices. The PV shall consist of a work vehicle with approved flashing lights, either a truck-mounted attenuator (TMA) with support structure designed for attaching the system to the work vehicle or a trailer truck-mounted attenuator (TTMA) designed for attaching the system to the work vehicle by a Pintle hook and an arrow panel (arrow mode for multilane roadways and caution mode on two-lane, two-way roadways).

Temporary Traffic Control for shoulder work along freeways, expressways, and roadways with posted speed \geq 55 mph shall include the use of a PV. The PV shall be outfitted with a TMA or TTMA as noted above and be positioned on the shoulder to protect the work area throughout the duration of the shoulder work operation.

The work vehicle size and method of attachment shall be as specified in the TMA/TTMA manufacturer's specification as tested under NCHRP and/or MASH Test Level 3.

When a temporary lane or shoulder closure is in effect, begin work within one hour after the lane is closed. For any delay, greater than one hour and no work in progress, remove the lane/shoulder closure. Ensure the Traffic Manager attends the Pre-Construction, Pre-Structural Steel Erection, Pre-Concrete Placement, Pre-MOT Shift, and Pre-Paving Meetings and is prepared to competently discuss traffic control, the Traffic Control Plan (TCP), and the procedures to be implemented for lane closures.

All closures shall be in conformance with the approved TCP and at the direction of the Traffic Manager and the Engineer.

Workers and equipment, including temporary traffic control devices needed for setting up a lane closure or restriction, are prohibited in the lane/shoulder to be closed or restricted before the time permitted in the Contract Documents unless otherwise approved by the Engineer.

SPECIAL PROVISIONS 104.01 — TRAFFIC CONTROL PLAN

Temporary traffic control devices to be used for lane/shoulder closure may be placed on the shoulder of the roadway by workers no earlier than <u>30</u> minutes prior to the actual time lane/shoulder closure or restriction is permitted. When temporary traffic control devices are being installed, ensure that all work vehicles involved in the installation display flashing lights that provide a 360-degree visibility of the vehicles. These lights shall remain on until the full installation of TTC devices is complete. Temporary traffic signs may be displayed to traffic at this time.

Workers shall not enter any lane open to traffic. Workers may be present on shoulders to prepare for lane closure setup no earlier than <u>30</u> minutes prior to the actual time lane/ shoulder closures or restrictions are permitted. During preparation for the lane closure, ensure that all work vehicles at the site and involved in the installation of the lane closure or restriction display flashing lights that provide 360-degree visibility of the vehicles, as required by MD 104.01-18B. These lights shall remain on while the vehicle remains in the work zone and until the full implementation of the road closure or restriction is complete.

Restore all temporary lane or shoulder closures at the end of the closure period and ensure that no travel lane has been reduced to less than 11 ft on expressways, freeways and 10 ft on other roadways. Prior to opening the closed lane or shoulder, clear the lane or shoulder of all material, equipment, and debris.

Failure to restore full traffic capacity within the time specified will result in a deduction assessed in conformance with the following.

This is in addition to the requirements specified in TC-4.02.

The designer shall identify the District (for freeways) or determine the Level of Service of the roadway (for other roads) and include the assessed deduction tables accordingly. All unnecessary tables should be deleted.

Level of Service may be determined by using the Congestion Assessment Maps obtained online at http://shavmhisdwma/congestionassessmentintroduction/Default.aspx

The lane closure penalties for freeways are categorized by the District in which they are located.

	ts 1, 2 and 6, the following fee structure will be followed.			
ASSESSED	ASSESSED DEDUCTIONS FOR FREEWAYS			
ELAPSED TIME, (MINUTES)	DEDUCTION			
	For 1 Lane Closures			
1 - 10	\$ 100.00			
Over 10	\$50.00 per minute (In addition to the original 10 minute deduction)			
Fa	For 2 or more Lane Closures			
1 – 10	\$ 200.00			
Over 10	\$100.00 per minute (In addition to the original 10 minute deduction)			

For Districts 1, 2 and 6, the following fee structure will be followed:

CONTRACT NO. AX7665D82 5 of 6

104.01 — TRAFFIC CONTROL PLAN

The lane closure penalties for other roads are categorized by intersection Level of Service. The penalty for other roads with Level of Service D, E or F is greater than that for Level of Service A, B or C.

For Level of Service A, B or C, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR OTHER ROADS					
ELAPSED TIME, (MINUTES)	DEDUCTION				
	For 1 Lane Closures				
1 - 10	\$ 150.00				
Over 10	\$75.00 per minute (In addition to the original 10 minute deduction)				
Fa	or 2 or more Lane Closures				
1 - 10	\$ 300.00				
Over 10	\$150.00 per minute (In addition to the original 10 minute deduction)				

For Level of Service D, E or F, the following fee structure will be followed:

ASSESSED I	ASSESSED DEDUCTIONS FOR OTHER ROADS			
ELAPSED TIME, (MINUTES)	DEDUCTION			
	For 1 Lane Closures			
1 - 10	\$ 300.00			
Over 10	\$150.00 per minute			
000110	(In addition to the original 10 minute deduction)			
F	or 2 or more Lane Closures			
1 - 10	\$ 600.00			
Over 10	\$300.00 per minute			
0,461,10	(In addition to the original 10 minute deduction)			

To modify the work restrictions, submit a request to the Engineer in writing with at least 72 hours notice. Do not implement any changes until written approval from the Engineer is received. Include a copy of the original work restrictions with the written request. The Engineer also reserves the right to modify or expand the methods of traffic control or working hours as specified in the Contract Documents.

104.01 — TRAFFIC CONTROL PLAN

104.01.03 CONSTRUCTION

INSERT: The following:

The recommended TCP's for this project are:

Standard No.	MD - 104.00-01 thru 18, General Notes
	MD - 104.01-01 thru 88, TTCT Applications
	MD - 104.02-01, Shoulder Work
	MD - 104.02-07, Lane Shift
	MD - 104.02-09, Flagging
	MD - 104.02-13, Intersection Flagging
	MD - 104.03-02, Shoulder Work
	MD - 104.03-04, Left lane Closure
	MD - 104.03-06, Right lane Closure
	MD - 104.03-15, Mobile Work Operations
	MD - 104.04-02, Shoulder Work
	MD - 104.04-04, Left lane Closure
	MD - 104.04-06, Right lane Closure
	MD - 104.05-01, Shoulder Work, Freeway/Expressway
	MD - 104.05-07, Right Lane Closure/Exp-Freeway Collector lane
	MD - 104.05-08, Left Lane Closure/Exp-Freeway Collector lane
	MD - 104.05-18, Partial Ramp Closure/Exp-Freeway

Road Work Ahead signs shall be displayed on intersecting roads in advance of active work areas.

Lane Closures on interstates require the use of a Portable Variable Message Sign.

Use of median crossovers is not permitted for construction vehicles.

CATEGORY 100 PRELIMINARY

SECTION 104 — MAINTENANCE OF TRAFFIC

104.01 TRAFFIC CONTROL PLAN (TCP)

104.01.01 DESCRIPTION.

<u>DELETE</u>: The fourth paragraph sentence "Refer to contract Documents for Work Restrictions." in its entirety.

INSERT: The following for District 7.

Work Restrictions.

Work is not permitted on the following holidays indicated below with an "X", nor is work permitted on the day immediately preceding and immediately following the holidays indicated below with an "X".

- New Year's Day, January 1
 - Martin Luther King's Birthday, the third Monday in January
 - President's Day, the third Monday in February
- \boxtimes Good Friday
- Easter Weekend
- Memorial Day, the last Monday in May
- Independence Day, July 4
- Labor Day, the first Monday in September
- Columbus Day, the second Monday in October
- Veterans Day, November 11
- \boxtimes Thanksgiving Day, the fourth Thursday in November
- Christmas Day, December 25

Work is not permitted on the following weekend days indicated below with an "X".

\ge	Saturdays, unless prior written approval is given by the Engineer	
$\overline{}$	Numbers unless anion resilten annuarelis siren by the Ensineer	

 \bowtie Sundays, unless prior written approval is given by the Engineer

104.01 — TRAFFIC CONTROL PLAN

CONTRACT NO. AX7665D82 2 of 11

TEMPORARY LANE OR SHOULDER CLOSURE SCHEDULE			
ROADWAY	# LANE(S) / SHOULDER CAN BE CLOSED	DAY OF THE WEEK	CLOSURE PERIOD (TIME OF DAY)
MD 32 (MD 108 to AA County Line)	0/1	Monday through Friday	12:01 AM to 5:00 AM 9:00 AM to 3:00 PM 8:00 PM to 12:00 M
	1/1	Monday Through Friday	12:01 AM to 5:00 AM 10:00 AM to 3:00 PM 8:00 PM to 12:00 M
MD 32(US 29 to I-95) Three lane section Howard County	2/1	Monday Through Friday	12:01 AM to 5:00 AM 11:00PM to 12:00 M
MD 100	1/1	Monday through Friday	12:01 AM to 5:00 AM 9:00 AM to 3:00 PM 9:00 PM to 12:00 M
(Three lane section ONLY)	2/1	Monday through Thursday	12:01 AM to 5:00 AM 10:00 PM to 12:00 M
	2/1	Friday	12:01 AM to 5:00 AM
MD 175 (US 29 to Pocomoke Ave.)	1/1	Monday through Friday	12:01 AM to 6:00 AM 9:00 AM to 3:00 PM 10:00 PM to 12:00 M
(Three lane section ONLY)	2/1	Monday through Friday	12:01 AM to 5:00 AM 10:00 PM to 12:00 M
US 29 – Southbound (Two and Three Lane Sections)	0/1	Monday through Friday	12:01 AM to 5:00 AM 9:00 AM to 3:00 PM 8:00 PM to 12:00 M
	1/1	Monday through Thursday	12:01 AM to 5:00 AM 10:00 AM to 2:00 PM 9:00 PM to 12:00 M
	1/1	Friday	12:01 AM to 5:00 AM 10:00 AM to 2:00 PM 9:00 PM to 12:00 M

104.01 — TRAFFIC CONTROL PLAN

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US 29 – Northbound	0/1	Monday	12:01 AM to 5:00 AM
(Two and Three Lane		through	9:00 AM to 3:00 PM
Sections)		Friday	8:00 PM to 12:00 M
	1/1	Monday	12:01 AM to 5:00 AM
		through	9:00 AM to 3:00 PM
		Thursday	8:00 PM to 12:00 M
	1/1	Friday	12:01 AM to 5:00 AM
			9:00 AM to 2:00 PM
			9:00 PM to 12:00 M
US 29 – Southbound	2/1	Monday	12:01 AM to 5:00 AM
(Three Lane Section Only)		through	10:00 PM to 12:00 M
(Thursday	
		11010000	
	2/1	Friday	12:01 AM to 5:00 AM
			10:00 PM to 12:00 M
US 29 – Northbound	2/1	Monday	12:01 AM to 5:00 AM
(Three Lane Section ONLY)		through	10:00 PM to 12:00 M
		Thursday	
	2/1	Friday	12:01 AM to 5:00 AM
			10:00 PM to 12:00 M
I-95 Northbound and	0/1	Monday	12:01 AM to 5:00 AM
Southbound		through	9:00 AM to 3:00 PM
		Thursday	7:00 PM to 12:00 M
	1/1	Monday	12:01 AM to 5:00 AM
	1/1		10:00 AM to 2:00 PM
		through Thursday	8:00 PM to 12:00 M
		Thursday	0.00 F WI to 12.00 WI
	1/1	Friday	12:01 AM to 5:00 AM
		5	No Daytime Closures
			9:00 PM to 12:00 M
I-95 Northbound and	2/1	Monday	12:01 AM to 5:00 AM
Southbound		through	11:00 PM to 12:00 M
		Thursday	
	2/1	Friday	12:01 AM to 5:00 AM

104.01 — TRAFFIC CONTROL PLAN

CONTRACT NO. AX7665D82 4 of 11

I-70 Westbound – Howard	0/1	Monday	12:01 AM to 5:00 AM
(Two lane section)		through	9:00 AM to 3:00 PM
		Friday	9:00 PM to 12:00 M
	1/1	Monday	12:01 AM to 5:00 AM
		through	No Daytime Closures
		Friday	9:00 PM to 12:00 M
I-70 Westbound - Howard	0/1	Monday	12:01 AM to 5:00 AM
(Three lane section)		through	9:00 AM to 3:00 PM
		Friday	7:00 PM to 12:00 M
	1/1	Monday	12:01 AM to 5:00 AM
		through	8:00 AM to 2:00 PM
		Thursday	7:00 PM to 12:00 M
	1/1	Friday	12:01 AM to 5:00 AM
		5	No Daytime Closures
			7:00 PM to 12:00 M
I-70 Eastbound - Howard	0/1	Monday	12:01 AM to 5:00 AM
(Two lane section)		through	9:00 AM to 3:00 PM
		Friday	9:00 PM to 12:00 M
	1/1	Monday	12:01 AM to 5:00 AM
		through	No Daytime Closures
		Friday	9:00 PM to 12:00 M
I-70 Eastbound - Howard	0/1	Monday	12:01 AM to 5:00 AM
(Three lane section)		through	9:00 AM to 3:00 PM
		Friday	7:00 PM to 12:00 M
	1/1	Monday	12:01 AM to 5:00 AM
		through	10:00 AM to 3:00 PM
		Thursday	7:00 PM to 12:00 M
	1/1	Friday	12:01 AM to 5:00 AM
			No Daytime Closures
			7:00 PM to 12:00 M

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104.01 — TRAFFIC CONTROL PLAN

I-70 Eastbound - Howard (Three Lane Section ONLY)	2/1	Monday through Thursday	12:01 AM to 5:00 AM 10:00 PM to 12:00 M
I-70 Westbound - Howard	2/1	Friday Monday	12:01 AM to 5:00 AM 12:01 AM to 5:00 AM
(Three Lane Section ONLY)	2/1	through Thursday	10:00 PM to 12:00 M
		Friday	12:01 AM to 5:00 AM
I-70 Westbound Carroll County	0/1	Monday through Friday	12:01 AM to 5:00 AM 9:00 AM to 3:00 PM 7:00 PM to 12:00 M
	1/1	Monday through Thursday	12:01 AM to 5:00 AM 8:00 AM to 2:00 PM 7:00 PM to 12:00 M
	1/1	Friday	12:01 AM to 5:00 AM No Daytime Closures 7:00 PM to 12:00 M
I-70 Eastbound Carroll County	0/1	Monday through Friday	12:01 AM to 5:00 AM 9:00 AM to 3:00 PM 7:00 PM to 12:00 M
	1/1	Monday through Thursday	12:01 AM to 5:00 AM 10:00 AM to 3:00 PM 7:00 PM to 12:00 M
	1/1	Friday	12:01 AM to 5:00 AM No Daytime Closures 7:00 PM to 12:00 M
I-70 Westbound and Eastbound Carroll County	2/1	Monday through Thursday	12:01 AM to 5:00 AM 10:00 PM to 12:00 M
		Friday	12:01 AM to 5:00 AM

104.01 — TRAFFIC CONTROL PLAN

CONTRACT NO. AX7665D82 6 of 11

MD 32, MD 100, MD 175, US 29, I-70, I-95 in Howard and Carroll County In Howard and Carroll Counties, no lane closures shall be allowed 1-½ hours before an Orioles or Ravens Game on eastbound I-70, northbound I-95, and northbound US 29 and 1-½ hours after an Orioles or Ravens Game on westbound I- 70, northbound I-	Complete Temporary Closure (15 minutes or less)	Monday through Friday	12:01 AM to 5:00 AM
70, southbound I-95, and southbound US 29. MD 140 Carroll County	1/1	Monday through Friday	12:01 AM to 5:00 AM 9:00 AM to 3:00 PM 9:00 PM to 12:00 M
MD 140 (Sulliver Bood to MD 07	2/1	Monday	12:01 AM to 5:00 AM 10:00 PM to 12:00 M
(Sullivan Road to MD 97 South) Carroll County		through Thursday Friday	12:01 AM to 5:00 AM
I-270 Northbound Montgomery County line to south of MD 80 interchange ramps (Night Work Only)	1/1	Monday through Friday	12:01AM to 6:00AM 10:00 PM to 12:00 M
I-270 Northbound from south of MD 80 interchange ramps to Jefferson Street (Night Work Only)	1/1	Monday through Friday	12:01AM to 6:00AM 10:00 PM to 12:00 M

104.01 — TRAFFIC CONTROL PLAN

CONTRACT NO. AX7665D82 7 of 11

I-270 Southbound From Jefferson Street to south of MD 80 interchange ramps (Night Work Only)	1/1	Monday through Friday	12:01AM to 4:00AM 8:00 PM to 12:00 M
I-270 Southbound From south of MD 80 interchange ramps to Montgomery County Line. (Night Work Only)	1/1	Monday through Friday	12:01AM to 4:00AM 7:00 PM to 12:00 M
US 15 Northbound (From MD 26 to Sundays Lane)	1/1	Monday through Friday	12:01 AM to 6:00 AM 9:00 AM to 2:00 PM 9:00 PM to 12:00 M
US 15 Southbound (From MD 26 to Sundays Lane)	1/1	Monday through Friday	12:01 AM to 5:00 AM 10:00 AM to 3:00 PM 9:00 PM to 12:00 M
US 15 (Between Sundays Lane to Pennsylvania Line)	1/1	Monday through Friday	12:01 AM to 6:00 AM 9:00 AM to 3:00 PM 7:00 PM to 12:00 M
US 15 (Between MD 26 and Jefferson Street / I-70) (Night Work Only)	1/1	Monday through Friday	12:01 AM to 5:00 AM 10:00 PM to 12:00 M
US 340 (US 15 / US 340 split to Jefferson Street)	1/1	Monday through Friday	12:01 AM to 5:00 AM 9:00 PM to 12:00 M
US 340 (From Washington County line to US 15 / US 340 Split)	1/1	Monday through Friday	12:01 AM to 5:00 AM 9:00 AM to 3:00 PM 7:00 PM to 12:00 M
I-70 Westbound - Frederick (Between Carroll County line to the bridge over Monocacy River)	1/1	Monday through Thursday Friday	12:01 AM to 6:00 AM 9:00AM to 2:30 PM 9:00 PM to 12:00 M 12:01 AM to 6:00 AM

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I-70 Eastbound - Frederick (Between bridge over Monocacy River to Carroll County Line)	1/1	Monday through Thursday Friday	12:01 AM to 5:00 AM 9:00 AM to 3:00 PM 9:00 PM to 12:00 M 12:01 AM to 5:00 AM
I-70 Westbound - Frederick (Between ½ mile west of Exit 49 to Washington County line)	1/1	Monday through Thursday	12:01 AM to 7:00 AM 9:00 PM to 12:00 M
		Friday	12:01 AM to 7:00 AM
I-70 Eastbound - Frederick (Between Washington County line to ½ mile west of Exit 49)	1/1	Monday through Thursday	12:01 AM to 4:00 AM 7:00 PM to 12:00 M
		Friday	12:01 AM to 4:00 AM
I-70 Westbound and Eastbound (Between the bridge over Monocacy River to ½ mile west of Exit 49 (Alt	1/1	Monday through Thursday	12:01 AM to 5:00 AM 9:00 PM to 12:00 M
40)		Friday	12:01 AM to 5 AM
I-70 Eastbound - Frederick (Two Lane Closures) (Three Lane Section) Frederick County	2/1	Monday through Thursday	12:01AM to 5:00AM 10:00 PM to 12:00 M
		Friday	12:01 AM to 5:00 AM
I-70 Westbound - Frederick (Two Lane Closures) (Three Lane Section) Frederick County	2/1	Monday through Thursday	12:01AM to 5:00AM 10:00 PM to 12:00 M
		Friday	12:01 AM to 5:00 AM
MD 85 Northbound and Southbound (Between English Muffin Way to I-70)	1/1	Monday through Friday	12:01 AM to 6:00 AM 10:00 PM to 12:00 M
US 40 at Golden Mile	1/1	Monday through Friday	12:01 AM to 5:30 AM 9:00 AM to 3:00 PM 9:30 PM to 12:00 M
MD 355 Northbound (Between Technology Way and Walser Drive)	1/1	Monday through Friday	12:01 AM to 6:00 AM 9:00 AM to 2:00 PM 9:00 PM to 12:00 M
MD 355 Southbound (Between Technology Way and Walser Drive)	1/1	Monday through Friday	12:01 AM to 6:00 AM 10:00 AM to 3:00 PM 9:00 PM to 12:00 M

ADD: The following after the last paragraph, "Any monetary savings...and the Administration."

When closing, or opening a lane or shoulder on freeways, expressways, and roadways with posted speed ≥ 55 mph, ensure a work vehicle is closely followed by a protection vehicle (PV) during installation and removal of temporary traffic control devices. The PV shall consist of a work vehicle with approved flashing lights, either a truck-mounted attenuator (TMA) with support structure designed for attaching the system to the work vehicle or a trailer truck-mounted attenuator (TTMA) designed for attaching the system to the work vehicle by a Pintle hook and an arrow panel (arrow mode for multilane roadways and caution mode on two-lane, two-way roadways).

Temporary Traffic Control for shoulder work along freeways, expressways, and roadways with posted speed ≥ 55 mph shall include the use of a PV. The PV shall be outfitted with a TMA or TTMA as noted above and be positioned on the shoulder to protect the work area throughout the duration of the shoulder work operation.

The work vehicle size and method of attachment shall be as specified in the TMA/TTMA manufacturer's specification as tested under NCHRP and/or MASH Test Level 3.

When a temporary lane or shoulder closure is in effect, begin work within one hour after the lane is closed. For any delay, greater than one hour and no work in progress, remove the lane/shoulder closure. Ensure the Traffic Manager attends the Pre-Construction, Pre-Structural Steel Erection, Pre-Concrete Placement, Pre-MOT Shift, and Pre-Paving Meetings and is prepared to competently discuss traffic control, the Traffic Control Plan (TCP), and the procedures to be implemented for lane closures.

All closures shall be in conformance with the approved TCP and at the direction of the Traffic Manager and the Engineer.

Workers and equipment, including temporary traffic control devices needed for setting up a lane closure or restriction, are prohibited in the lane/shoulder to be closed or restricted before the time permitted in the Contract Documents unless otherwise approved by the Engineer.

Temporary traffic control devices to be used for lane/shoulder closure may be placed on the shoulder of the roadway by workers no earlier than _____ minutes prior to the actual time lane/shoulder closure or restriction is permitted. When temporary traffic control devices are being installed, ensure that all work vehicles involved in the installation display flashing lights that provide a 360-degree visibility of the vehicles. These lights shall remain on until the full installation of TTC devices is complete. Temporary traffic signs may be displayed to traffic at this time.

Workers shall not enter any lane open to traffic. Workers may be present on shoulders to prepare for lane closure setup no earlier than _____ minutes prior to the actual time lane/ shoulder closures or restrictions are permitted. During preparation for the lane closure,

SPECIAL PROVISIONS 104.01 — TRAFFIC CONTROL PLAN

ensure that all work vehicles at the site and involved in the installation of the lane closure or restriction display flashing lights that provide 360-degree visibility of the vehicles, as required by MD 104.01-18B. These lights shall remain on while the vehicle remains in the work zone and until the full implementation of the road closure or restriction is complete.

Restore all temporary lane or shoulder closures at the end of the closure period and ensure that no travel lane has been reduced to less than 11 ft on expressways, freeways and 10 ft on other roadways. Prior to opening the closed lane or shoulder, clear the lane or shoulder of all material, equipment, and debris.

Failure to restore full traffic capacity within the time specified will result in a deduction assessed in conformance with the following.

This is in addition to the requirements specified in TC-4.02.

The lane closure penalties for freeways are categorized by the District in which they are located.

ASSESSED DEDUCTIONS FOR FREEWAYS		
ELAPSED TIME, (MINUTES)	DEDUCTION	
For 1 Lane Closures		
1 – 10	\$ 100.00	
Each minute over 10	\$50.00 per minute (In addition to original 10 minute deduction)	
For 2 or more Lane Closures		
1 – 10	\$ 200.00	
Each minute over 10	\$100.00 per minute (In addition to original 10 minute deduction)	

For Districts 1, 2 and 6, the following fee structure will be followed:

For Districts 3, 4, 5 and 7, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR FREEWAYS		
ELAPSED TIME, (MINUTES)	DEDUCTION	
For 1 Lane Closures		
1 - 10	\$ 1,000.00	
Each minute over 10	\$500.00 per minute (In addition to original 10 minute deduction)	
For 2 or more Lane Closures		
1 – 10	\$ 2,000.00	
Each minute over 10	\$1,000.00 per minute (In addition to original 10 minute deduction)	

The lane closure penalties for other roads are categorized by intersection Level of Service. The penalty for other roads with Level of Service D, E or F is greater than that for Level of Service A, B or C.

For Level of Service A, B or C, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR OTHER ROADS		
ELAPSED TIME, (MINUTES)	DEDUCTION	
For 1 Lane Closures		
1 - 10	\$ 150.00	
Over 10	\$75.00 per minute (In addition to the original 10 minute deduction)	
For 2 or more Lane Closures		
1 - 10	\$ 300.00	
Over 10	\$150.00 per minute (In addition to the original 10 minute deduction)	

For Level of Service D, E or F, the following fee structure will be followed:

ASSESSED DEDUCTIONS FOR OTHER ROADS		
ELAPSED TIME, (MINUTES)	DEDUCTION	
For 1 Lane Closures		
1 - 10	\$ 300.00	
Over 10	\$150.00 per minute (In addition to the original 10 minute deduction)	
For 2 or more Lane Closures		
1 - 10	\$ 600.00	
Over 10	\$300.00 per minute (In addition to the original 10 minute deduction)	

To modify the work restrictions, submit a request to the Engineer in writing with at least 72 hours notice. Do not implement any changes until written approval from the Engineer is received. Include a copy of the original work restrictions with the written request. The Engineer also reserves the right to modify or expand the methods of traffic control or working hours as specified in the Contract Documents.

CATEGORY 100 PRELIMINARY

SECTION 104 – MAINTENANCE OF TRAFFIC

104.21 CELLULAR TELEPHONES.

104.21.01 DESCRIPTION. Furnish and maintain new or like new cellular telephones for use by the appropriate Administration personnel. Each telephone shall be furnished with a hands-free device and be delivered to the Engineer at time of Notice to Proceed, fully activated and operational. They shall remain operational until returned to the Contractor at final acceptance of the entire project in conformance with GP-5.13.

104.21.02 MATERIALS.

Cellular Telephones

As approved by the Engineer

104.21.03 CONSTRUCTION. Not applicable.

104.21.04 MEASUREMENT AND PAYMENT. The number of cellular telephones required for this Contract is The cellular telephones will not be measured but will be incidental to the Contract price for the Engineers Office item. If an item for Engineers Office is not specified, payment for the cellular telephones will be incidental to the payment for Mobilization. In the absence of either item, payment will be incidental to the other items specified in the Contract Documents. The payment will be full compensation for furnishing the telephones and hands-free devices, activation fees, battery replacement, monthly service fees, extended coverage charges, air time (peak and nonpeak time per minute), roaming rates, long distance fees in conformance with the schedules provided, and for all material, labor, equipment, tools, and incidentals necessary to complete the work. If any of the telephones become defective, are stolen, or for any other reasons do not function as intended, they shall be replaced in-kind at no additional cost to the Administration. Nonfunctioning or stolen telephones shall be replaced within eight hours after the Contractor is notified by the Engineer.

Ownership of the telephones will remain with the Contractor. The Administration assumes no responsibility or liability for the condition of the telephones when they are returned.

CATEGORY 100 PRELIMINARY

184 **DELETE:** SECTION 107 – CONSTRUCTION STAKEOUT in the Standard Specifications in its entirety.

INSERT: The following.

SECTION 107 — CONSTRUCTION STAKEOUT FOR DESIGN-BUILD PROJECTS

107.01 DESCRIPTION. This work shall consist of furnishing, placing and maintaining construction layout stakes as specified in the Contract Documents or as directed by the Engineer.

The Design-Builder shall, as part of the construction stakeout operation, before any clearing operation commences, demarcate any wetlands and the limit of clearing throughout the entire project as shown in the Contract Documents and labeled as Limit of Clearing or Wetlands to the satisfaction of the Engineer.

Where limits of clearing are not shown in the Contract Documents, the limit of clearing will be the top of cut, toe of slope or limit of ditch excavation.

107.02 MATERIALS. The material for flagging the clearing limits shall be a 3 in. international orange vinyl material with "CLEARING LIMIT" printed on it with 2 in. letters. The material for flagging wetlands shall be the Administration's standard 1-1/2 in. pink and white striped vinyl flagging with "SHA WETLAND" printed on it with blue letters.

107.03 CONSTRUCTION.

107.03.01 Line and Grade.

The Design-Build Engineer will provide the Design-Builder with the following:

(a) Control Points.

(1) Control Points for horizontal and vertical control shall be as shown on the Preliminary Plans.

(b) Structure Stakeout.

- (1) A staked out center line or working line, whichever applies, with stations not over 100 ft apart and extending at least 100 ft beyond ends of the structure.
- (2) When the structure is on a curve, the Design-Build Engineer will furnish a staked out center line or working line, whichever applies, consisting of stations not over 100 ft apart and including the P.C., P.T., and at least one point on the tangents beyond each end of the curve.
- (3) At least two bench marks, one on each end of the structure, will be established by the Design-Build Engineer.

The Design-Builder will provide the following:

(a) Roadway Stakeout.

- (1) A staked center line of the roadway with the maximum spacing of stations (stakes, nails, crosses, etc.) of 100 ft.
- (2) Establish appropriately spaced bench marks and the necessary references including all points of curvature (P.C.), and points of tangency (P.T.) for the preservation and control of the center line.

Horizontal Referencing:

- The Design-Builder will establish references to all Base Line of Construction Controls. This will include all Points of Curvature (P.C.s) and Points of Tangency (P.T.s).
- Reference points shall be positioned in pairs with the closest point placed Twenty (20) feet outside the limit of construction. Should these points fall beyond the Right of Way Line, approval from the property owner or tenant must be obtained prior to setting. Right angle and radial ties to Baselines are preferred but not required.
- Reference points, typically, shall be Number #5 (five) 5/8"Rebar two (2)feet long with a State Highway Administration(SHA) Yellow Cap affixed to the top. SHA Caps will be supplied by the SHA Plats and Surveys Division. In areas unsuitable for Rebars, markers of a stable, permanent nature shall be used,(crosses in concrete, PK nails, Railroad spikes, etc.) NOTE: Wooden hubs are not to be used for any referencing purpose.
- References, when positioned, shall be hand referenced to local points of permanency (trees, structure corners, utility poles, etc).measured to a 100th of a foot.

Vertical Referencing:

- The Design-Builder will place and establish permanent Bench Marks on structures along the project Baseline. These marks will be pre-stamped Brass Discs supplied by the S.H.A. Plats and Surveys Division and are to be placed in a suitable surface at time of pour and finish. In non-structure areas, permanent points in stable positions (Square cuts in existing concrete, Boat spikes in Power poles / large trees etc.) are acceptable.
- Benches shall be referenced to the Base Line of Construction by Station plus and offset distance.
- Spacing of Vertical Control shall be a minimum of Five (5) per mile.
- Elevations on all Benches shall be established by differential leveling and return Loop check.
- **NOTE:** In the Horizontal and Vertical Referencing process, all work shall be shown and documented in SHA Field Survey book/s supplied by the S.H.A. Plats and Surveys Division. Upon project completion, all books shall be returned to the S.H.A. Plats and Surveys Division for archiving.

For questions regarding the S.H.A'.s specifications for Baseline Referencing or examples of S.H.A. Construction Stakeout bookwork, contact the S.HA.s Plats and Surveys Division in Baltimore, Maryland at 410-545-8940.

107.03.02 Equipment and Personnel. The Design-Builder shall engage a Registered Professional Land Surveyor, licensed in the State of Maryland, to determine all lines and elevations for various parts of the Work. The Surveyor shall have 3 to 5 years experience as a party chief or higher and have demonstrated experience working with the Maryland Plane Coordinate System – NAD 83/91 and NAVD 88, or similar. The surveyor shall use competent personnel and state of the art equipment for all engineering work required to set and maintain the elevations and dimensions as specified in the Contract Documents.

107.03.03 Control Markers. The Design-Builder shall be responsible for preserving the centerline and benchmarks set by the Design-Build Engineer. When the centerline and benchmarks are disturbed or destroyed, they shall be replaced by the Design-Builder at no additional cost to the Administration.

107.03.04 Control Stakes. For roadways as specified in 107.03.01, the Design-Builder shall furnish, set and preserve stakes at each station along each side of the project on the right-of-way or easement line, whichever is furthest from the center line of construction. Where only part of an ultimate dual highway is to be constructed, the stakes on the side of the future improvement shall be set 10 ft beyond the construction limits. On each of these stakes shall be marked its offset distance from the center line and its top elevation or the

SPECIAL PROVISIONS 107-CONSTRUCTION STAKEOUT

cut or fill to the profile grade line. Additional stakes as needed for horizontal and vertical controls necessary for the correct layout of the work shall be set by the Design-Builder.

107.03.05 Layout. For structures as specified in 107.03.01, the Design-Builder shall proceed with the layout work. However, before any actual construction begins, the Design-Builder shall rerun and check the Design-Build Engineer's lines and grades and then establish all center line or working line intersections with the center line or center of bearing of all piers, bents and abutments. From these field layouts, the Design-Builder shall check the proposed span lengths by electronic distance measurement or chaining. When chaining is used, the measurements shall be compensated for temperature, sag, and horizontal alignment. The Design-Builder shall also check the location of the structure to affirm its correct location with relation to existing structures, roads, and existing conditions that are to remain in their original positions. If any discrepancies are found, the Design-Builder shall notify the Design-Build Engineer at once in writing, otherwise, it will be assumed that all planned dimensions, grades and field measurements are correct. All lines established on the ground shall be preserved or referenced, marked, and kept available at all times.

The Design-Builder shall establish the field elevations for all bridge seats and assume responsibility for finishing to proper grade. If any steel beams or girders are incorporated in the project, the Design-Builder shall run elevations over the tops of the beams or girders after they are in place, before any forms are attached to them, to determine the deflection of each member. This information shall then be applied to the deflection diagram to determine the corrected elevation of bottom slab forms and screed supports. After the Design-Builder has assembled this information, it will be checked by the Engineer before final adjustments are made and the placing of any concrete in the forms.

107.03.06 Utilities. The Design-Builder shall furnish to the utility companies or agencies working within the limits of the project, promptly upon request, reference to control points, alignment and grade data, so that they may properly locate and coordinate their work and improvements in relation to the project.

Intersection Utility Stakeout. The Design-Builder shall notify the appropriate agencies listed below a minimum of 72 hours (excluding weekends and holidays) prior to the Design-Builder's anticipated beginning of any underground work.

- (a) Request a MISS UTILITY stakeout and possess a valid MISS UTILITY clearance ticket number for any underground work.
- (b) Contact all utilities within the limits of the project who are not a member of MISS UTILITY and obtain a stakeout of their respective facilities.

- (c) Request the Office of Traffic & Safety's Signal Operations Section to stakeout Administration maintained traffic signal facilities.
- (d) Request the District Engineer to stakeout their lighting facilities.

The Design-Builder shall stakeout the proposed construction as indicated in the Contract Documents and allow the Design-Build Engineer to verify location of the proposed facilities.

107.03.07 Right-of-Way and Easement Lines. The Design-Builder shall define only right-of-way and easement lines of the project for adjacent property owners, promptly upon request.

107.03.08 Subgrade, Subbase and Base Controls. The Design-Builder shall furnish for subgrade, subbase and base courses, a string line and grade with fixed controls having a maximum longitudinal and transverse spacing of 25 ft.

The Design-Builder shall place along each form line for cement concrete pavement line and grade with fixed controls not to exceed 25 ft.

107.03.09 Flagging. The flagging shall be placed continuously through wetland areas. In areas where trees are not to be disturbed, the Design-Builder shall individually flag those trees in a line along the clearing limits that are not to be moved or destroyed. If the clearing or wetland flagging has been destroyed and the Engineer determines that its use is still required, the Design-Builder shall reflag the areas

If the Design-Builder does not replace destroyed flagging within 48 hours after notification by the Engineer that replacement flagging is needed, the Engineer may proceed to have the area reflagged. The cost of the reflagging by the Engineer will be charged to the Design-Builder and deducted from any monies due under the Contract.

At the completion of construction, the Design-Builder shall remove all flagging.

107.04 MEASUREMENT AND PAYMENT. Payment for all work for Construction Stakeout for Design-Build Projects shall be included in the TMDL Credit Design Lump Sum. The payment will be full compensation for furnishing, placing and maintaining construction layout stakes, flagging of clearing limits and wetlands, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

109 — CPM PROJECT SCHEDULE DESIGN-BUILD

CATEGORY 100 PRELIMINARY

<u>DELETE</u>: SECTION 109 — CRITICAL PATH METHOD PROJECT SCHEDULE in the Standard Specifications in its entirety.

INSERT: The following.

SECTION 109 - CRITICAL PATH METHOD PROJECT SCHEDULE DESIGN-BUILD

109.01 DESCRIPTION. Plan, schedule, and construct the project by using a Critical Path Method Project Schedule (CPM). Use the CPM for coordinating and monitoring the work specified in the Contract Documents including all activities of subcontractors, vendors, suppliers, utilities, railroads, the Administration, and all other parties associated with the construction of the Contract. The CPM schedule shall be used for coordinating activities for both design and construction tasks by incorporating all activities into one CPM schedule. All work including but not limited to activities associated with design elements, milestones, permits, utility relocations, and submittals shall be represented by schedule activities. All work including but not limited to submittals shall be represented by schedule activities shall be included. All appropriate schedule logic relationships between the design element activities and the corresponding construction activities shall be shown. Base the CPM upon the entirety of the Contract Documents. Utilize CPM software that generates files compatible with Primavera Project Planner.

Float. The CPM utilizes float. Float is defined as the amount of time between when an activity "can start or finish" and when an activity "must start or finish". Float is a shared commodity for the use of the Administration and the Design-Build Team and is not for the exclusive use or benefit of either party. Both parties have the full use of the float until depleted.

Scheduling Representative. Designate a scheduling representative prior to submission of the Initial Critical Path Method Project Schedule (ICPM). The scheduling representative is the person primarily responsible for development and maintenance of the CPM schedule, the Design-Build Team's representative in all matters regarding the schedule, and the designated attendee for all schedule related meetings. Replacement of the scheduling representative will require written approval from the Administration.

Submit the qualifications of the scheduling representative to the Administration for approval. This approval is required before the ICPM will be accepted. The scheduling representative shall have at least three years of verifiable experience for preparing and maintaining CPM project schedules on Contracts of similar size and complexity.

Initial Critical Path Method Project Schedule (ICPM). The ICPM shall consist of:

- (a) A time scaled diagram of acceptable scale and format that is acceptable to the Engineer. Clearly label and identify each activity. Show all relationships between activities.
- (b) Tabular reports with activities sorted as follows:

109 – CPM PROJECT SCHEDULE DESIGN-BUILD

- (1) Activity ID. Provide predecessors and successors for each activity with leads and lags shown.
- (2) Activity ID. Provide and clearly define the resources assigned to each activity.
- (3) Early Start, Total Float.
- (4) Total Float, Early Start.
- (5) Project Area (if applicable).
- (6) Project Phase (if applicable).
- (7) Responsibility, e.g., Design-Build Firm, Designer, Constructor, specific subcontractor, specific supplier, the Administration, etc.

Provide in the header of each tabular report: the project name, Contract number, data date, run date and number, and report type.

Provide in the body of each report: the activity identification, activity description, original and remaining duration, early/late start and finish dates, percent complete, actual start/finish dates, total float, and calendar designation for every activity.

- (c) Written Narrative (WN). Comply with the requirements described hereinafter.
- (d) Printed Calendars. Include a listing, description, and calendar form tabulation of all calendars used. Include the total number of anticipated work days required to complete the Contract work.

Delineate holidays and anticipated nonwork days or periods. Explain in the WN the basis for determining each nonwork day or period.

(e) A data disc containing all of the information contained in the ICPM and in a format compatible with Primavera Project Planner software. All construction activities shall have durations not exceeding 10 working days, unless otherwise approved. Activities representing review and approval of construction submittals by the Administration shall be given a duration of not less than 30 calendar days. Activities representing review and approval of design submittals by the Administration shall be given a duration of not less than 30 calendar days. Activities representing review and approval of design submittals by the Administration shall be given a duration of not less than 45 calendar days. A short list of highly critical approval activities may be submitted. The Engineer will make every effort to expedite the approval of these submittals; however, this will not alter the requirement to include 30 calendar days for construction submittal approvals and 45 calendar days for construction submittal approvals and pre-load in calendar days. Durations for procurement activities will be evaluated on a case-by-case basis.

The latest calculated early finish date in the ICPM shall equal the calendar date for completion specified in the Contract Documents. If an earlier completion date is submitted, the Administration, upon approval of the ICPM, will issue a change order to adjust the Contract time to the completion date shown on the ICPM.

109 — CPM PROJECT SCHEDULE DESIGN-BUILD

Resource load all construction activities in the schedule with the material, equipment, and manpower planned to be utilized in accomplishing each activity. Provide a full explanation of the resource loading in the WN.

The Engineer reserves the right to specify the number of activities and to require an additional breakdown of the activities at any time.

Utilize activity codes to categorize activities by at least the following: project area; construction phase; design phase; and responsibility, e.g. Design-Build Firm or specific subcontractors.

Provide a WN as part of the ICPM. Explain the sequence of work, the critical path, interim completion dates, project phasing, nonwork days or periods, maintenance of traffic, and labor and equipment resources. Explain how the ICPM provides for permit requirements, environmental requirements, coordination with other public Contractors, milestone dates (for the Contract or other related contracts), coordination with other entities, coordination with all utility companies, special nonwork days or periods, and weather. Explain the specific scope of each activity and the basis used to determine the original duration of each activity, i.e. production rates and anticipated quantities. Address all activities quantified in the Contract Documents. Explain the following in the WN.

- (a) Relationships between activities not obviously identified.
- (b) Equipment usage and limitations.
- (c) Manpower usage and limitations.
- (d) Use of additional shifts and overtime.
- (e) Activity codes, abbreviations, and activity identification system.
- (f) All calendars utilized in the CPM.
- (g) Date or time constraints.
- (h) All abbreviations.
- (i) Use of calendars.
- (j) Scheduling of weather and temperature sensitive activities.
- (k) Design Phase/milestone dates.

Complete and submit the proposed ICPM within 30 calendar days after receiving the Notice of Award. Submit five sets of all required information for review and acceptance. Do not start any work until the ICPM is accepted. Upon issuance of the Notice to Proceed, the start date utilized in the ICPM will be adjusted to comply with the Notice to Proceed.

The Engineer will complete the review of the ICPM within 30 calendar days after submittal. If required, a Joint Review Conference will be convened at which time the Engineer and Design-Build Firm may make corrections and adjustments to the proposed ICPM. If a revision is necessary due to the Engineer's review or the Joint Review Conference, submit the proposed revision within seven calendar days after receiving the Engineer's review comments or within seven calendar days after the date of the

109 – CPM PROJECT SCHEDULE DESIGN-BUILD

Joint Review Conference, whichever is the latest. Make revisions in accordance with the requirements for the ICPM. The Engineer will respond to the revised ICPM within seven calendar days after receipt.

Any delay in starting work caused by the acceptance of the ICPM by the Engineer will not be considered as a basis for any adjustment in the Contract amount or time.

Upon notification that the ICPM has been accepted, that document will become the CPM of record. The CPM of record shall be the Design-Build Firm's work plan for completing the entire Contract as specified in the Contract Documents.

Failure to adhere to the CPM of record will be cause for the Administration to deny requests for additional compensation or extensions of the Contract duration and may result in the withholding of pay estimates.

CPM Updates. Provide monthly updates of the CPM of record. Update submissions shall include the activity data as specified in (a) through (e) of the ICPM. Use the update to describe the progress to date. The WN shall include a description of the work performed during the update periods, current critical path, the amount of float on the critical path, any delays or disruptions experienced during the period of the update, any change in manpower or equipment, and any potential delays or disruptions.

The scheduling representative and the Engineer will meet to review, mutually agree to, and signoff on the information required to update the schedule (actual start and finish dates, remaining durations, and percentages complete). Use an acceptable update form. The data date for each update shall be seven days prior to the cut-off date of the pay estimate for that month. Submit the update within seven calendar days from the data date. Failure to submit the update on a timely basis may result in the withholding of pay estimates. Upon acceptance by the Engineer, the update shall become the CPM of record for the period between its data date and the data date of the next approved update or revision.

Do not include any revisions to the CPM without prior approval.

Revisions to the Schedule of Record. Revisions are defined as one or more of the following:

- (a) A change in the original duration of an activity.
- (**b**) A change in the logic of the schedule.
- (c) A change in the calendars or to the calendar to which an activity is assigned.
- (d) A change to resources.
- (e) A change to any actual date, previously established.
- (f) The deletion or addition of an activity.
- (g) A change to, addition of, or deletion of a date or time constraint.
- (h) A change to, addition of, or deletion of an activity code.
- (i) A change to an activity description.
- (j) Any change other than updating an activity.

Discuss any proposed revision to the CPM verbally with the Engineer. If the revision is minor in nature, the Engineer may allow the revision to be included on the next Update of the CPM. If the Engineer determines that the revision is not minor in nature, submit the proposed revision for review and approval prior to deviating from the approved CPM.

When a revision to the CPM is required due to changes in the Contract initiated by the Engineer, immediately contact the Engineer to discuss the changes. If the revision is minor in nature, the Engineer may allow the revision to be included on the next Update of the CPM. If the Engineer determines that the revision is not minor in nature, submit the proposed revision for review and approval prior to deviating from the approved CPM.

The Engineer may allow a deviation from the approved CPM for specific mitigating activities.

Submit the proposed revision in the same format and with the same requirements used for the ICPM. The proposed revision shall be made to the CPM of record at the time the revision is made, i.e. the revision shall include all update information and revisions previously approved and the additional progress to the date of the revision. The WN accompanying the proposed revision shall describe the reason for the revision, the resulting critical path, and all particulars of the revision. These shall include but not be limited to changes in the method or manner of the work, changes in specifications, changes in resources, addition or deletion of work, increased or decreased quantities, defective work, and acceleration of the work.

The Engineer will review and respond to the proposed revision within 14 calendar days after receipt. Resubmit, if required, within seven calendar days after receipt of the Engineer's review comments. The Administration reserves the right to reject any proposed revision that adversely impacts the Administration, utilities, or other concerned parties.

Extensions of Contract Time or Incentive/Disincentive Date. Make requests for extension of Contract time in writing and subject to the notice and timeliness of submission provisions as provided for elsewhere in the Contract. Requests for an extension of Contract time or change in an incentive/disincentive date will be evaluated by the Engineer's analysis of the CPM of record and any proposed revision submitted. The request shall include a WN of the events, which would require an extension of the Contract time or incentive/disincentive date.

Only delays to activities that affect the Contract completion date or incentive/disincentive date will be considered for an extension of Contract time. The extension of the specified Contract completion date or incentive/disincentive date will be based upon the number of calendar days the Contract completion date or incentive/disincentive date is impacted as determined by the Engineer's analysis.

When an acceptable Update or Revision is not submitted within the time limits prescribed above, pay estimates may be withheld until an acceptable Update or Revision is submitted.

109.02 MATERIALS. Not Applicable.

109.03 CONSTRUCTION. Not Applicable.

109.04 MEASUREMENT AND PAYMENT. Payment for the accepted Initial Critical Path Method Project Schedule, Critical Path Method Project Schedule Revisions, and all accepted Critical Path Method Project Schedule Updates shall be included in the Lump Sum Price for TMDL Credit Design.

CATEGORY 100 PRELIMINARY

SECTION 113 — DIGITAL CAMERA

113.01 DESCRIPTION. Furnish and maintain new or like new digital cameras for use by Administration personnel. For projects that do not include an Engineer's Office, furnish one color printer. The digital cameras and printer shall be delivered to the Engineer at the time of the Notice to Proceed. They shall remain operational and not be returned to the Contractor until final acceptance of the entire project, in conformance with GP-5.13.

113.02 MATERIALS.

- (a) **Digital Camera.** Each digital camera shall meet the following minimum requirements and be furnished with the specified accessories:
 - (1) Photo Managing Software.
 - (2) 16.0 megapixel image resolution and 5X optical zoom.
 - (3) AC adapter, 2 sets of rechargeable batteries, and battery charger.
 - (4) 16 GB SD Card or memory stick with all items required for downloading.
 - (5) Lens Cover, Shoulder Strap, and Carrying Case.
- (b) Color Printer. The printer shall have at least 8 MB RAM, 2400 x 1200 dpi resolution, a color print speed of 13 ppm, and a duty cycle of 5,000 pages/month.

113.03 CONSTRUCTION. Not applicable.

113.04 MEASUREMENT AND PAYMENT. The number of digital cameras required for this project is <u>1</u>. The digital cameras and printer will not be measured but the cost will be incidental to the Contract price for the Engineers Office item. If an item for Engineers Office is not specified, payment will be incidental to the payment for Mobilization. In the absence of either item, payment will be incidental to the other items specified in the Contract Documents. If a digital camera or printer becomes defective, is stolen, or for any other reason does not function as intended, it shall be replaced with an approved camera or printer at no additional cost to the Administration. A nonfunctioning or stolen camera or printer shall be replaced by the SHA Project prime contractor within 5 days after the Engineer notifies the Contractor.

113 — DIGITAL CAMERA

Ownership of the camera(s) and printer(s) will be with the assigned SHA project personnel during the progression of the project. Pictures and removable media will be the property of the State Highway Administration. The State Highway Administration assumes neither responsibility nor liability for the condition of the camera when returned after project is satisfactorily completed.

CONTRACT NO. AX7665D82 1 of 3

CATEGORY 200 GRADING

SECTION 203 – BORROW EXCAVATION

203.01.02 Notice to Contractor – Borrow Pits.

ADD: After the first paragraph.

This project is located in <u>Fill in blank (use drop-down)</u>. The following conditions applicable to the county or city shall be complied with and documented.

DISTRICT 1

Dorchester (DO) County Site plan approved by Soil Conservation District. Grading permit from County Highway Department (except City of Cambridge). Planning and Zoning approval for use. Critical Areas approval (if applicable). Inspection by County.

Somerset (SO) County Site plan approved by Soil Conservation District. Grading Permit from the County. Land Use permit. Critical Areas approval by Planning and Zoning (if applicable). Inspection by SHA.

Wicomico (WI) County Site plan approved by Soil Conservation District. Certificate of compliance with Planning and Zoning if located in Critical Area. Inspection by SHA.

Worcester (WO) County Site plan approved by Soil Conservation District. Critical areas approved by Planning and Zoning (if applicable). Inspection by SHA.

DISTRICT 2

Caroline (CO), Cecil (CE), Queen Anne's (QA) and Talbot (TA) Counties Site plan approved by Soil Conservation District. Planning and Zoning approval. Critical Areas approval (if applicable). Inspection by SHA.

Kent (KE) County Site plan approved by Soil Conservation District. Grading permit. Planning and Zoning approval. Critical Areas approval (if applicable). Inspection by SHA.

DISTRICT 3

Montgomery (MO) County

Sediment control permit and plan approval by County Department of Environmental Protection, Division of Water Resources Management, Storm Water Management Section/Sediment Control. Approval by Maryland National Capital Park and Planning Commission (if applicable). Inspection by County.

Prince Georges (PG) County

Site Plan approved by Soil Conservation District.

County Grading Permit.

Tree conservation plan approval by Maryland National Capital Park and Planning Commission (if applicable).

Critical Areas approval (if applicable).

Payment of all pertinent county fees and/or securing of county required bonding. Inspection by SHA with oversight by County.

DISTRICT 4

Baltimore (BA) County

Site Plan approved by the Department of Environmental Protection and the Soil Conservation District.

County Grading Permit.

Critical Areas approval by the Department of Environmental Protection and Resource Management (if applicable).

Inspection by County.

Harford (HA) County Site Plan approved by Soil Conservation District. County Grading Permit. Critical Areas approval (if applicable). Inspection by County.

DISTRICT 5

Anne Arundel (AA) County

Site Plan approved by Soil Conservation District. Planning and zoning approval - special exception required. Grading plan issued by the County Department of Inspections and Permits. Critical Areas approval (if applicable). Inspection by County and SHA.

Calvert (CA) County

Site Plan approved by Soil Conservation District. Grading plan issued by the County after a mining permit or exemption is issued. Critical Areas approval (if applicable). Inspection by SHA.

CONTRACT NO. AX7665D82 3 of 3

203 — BORROW EXCAVATION

Charles (CH) County

Site Plan approved by Soil Conservation District. Special exception granted by the County. Critical Areas approval (if applicable). Inspection by SHA.

St. Mary's (SM) County
Site Plan approved by Soil Conservation District.
County Grading Permit.
Critical Areas approval (if applicable).
Inspection by SHA.

DISTRICT 6

Allegany (AL) CountySite plan approved by Soil Conservation District.Informational copy of plans to County Planning and Zoning Commission.Inspection by SHA.

Garrett (GA) and Washington (WA) Counties Site plan approval by Soil Conservation District. Inspection by SHA.

DISTRICT 7

Carroll (CL) County Site plan approved by County Planning Commission. Sediment control plan approval by Soil Conservation District. County Grading Permit. Inspection by County.

Frederick (FR) County Site plan approved by Soil Conservation District. County Grading Permit. Inspection by SHA.

Howard (HO) County Site Plan approved by Soil Conservation District. County Grading Permit. Inspection by County.

BALTIMORE CITY (BC)

Site plan approved Baltimore City Department of Public Works (BCDPW). Inspection by BCDPW.

STATE AND FEDERAL PROPERTY

Borrow pits located on state and federal property are subject to Maryland Department of the Environment approval. Inspection by SHA. MOT MARYLAND DEPARTMENT OF TRANSPORTATION.

STATE HIGHWAY ADMINISTRATION

SPECIAL PROVISIONS INSERT 308 — EROSION AND SEDIMENT CONTROL

CONTRACT NO. AX7665D82 1 of 16

CATEGORY 300 DRAINAGE

SECTION 308 — EROSION AND SEDIMENT CONTROL

DELETE: SECTION 308 – EROSION AND SEDIMENT CONTROL in its entirety.

INSERT: The following.

SECTION 308 — EROSION AND SEDIMENT CONTROL

308.01 DESCRIPTION. Install and maintain erosion and sediment control (ESC) measures throughout the life of the Contract to control erosion and to minimize the release of sediments into adjacent areas and nearby rivers, streams, lakes, reservoirs, bays, and coastal waters. Implement the approved ESC plan and approved modifications. Identify staging and stockpile areas, and apply ESC measures as approved.

308.01.01 Erosion and Sediment Control Manager (ESCM). Designate an Erosion and Sediment Control Manager (ESCM) to implement the ESC plan and to oversee the installation, maintenance, and inspection of the ESC measures.

308.01.02 Severe Weather Event. A severe weather event is defined as a weather event in which measured rainfall exceeds 3 in. in a continuous 24-hr period based upon rainfall data obtained from the nearest official National Weather Service (NWS) gauge station in proximity to the project site.

308.01.03 Quality Assurance (QA) Toolkit. The Quality Assurance (QA) Toolkit is a web-based system that contains project and permit information, a history of ESC inspection reports, and is used to submit, track and receive approvals for modifications to the ESC plans.

308.02 MATERIALS.

Riprap	901.03
4 to 7 in. Stone	901.05
Asphalt Mixes	904
Pipe	905
Gabion Wire	906
Steel Plate	909.02
Welding Material	909.03
Fence Fabric for Super Silt Fence	914.01.01
Geotextile, Woven and Non-Woven	919, Class E
Geotextile, Woven Slit Film	919, Class F
Soil Amendments	920.02
Compost	920.02.05, Type C
Fertilizer	920.03
Mulch	920.04
Soil Stabilization Matting	920.05

MOT MARYLAND DEPARTMENT OF TRANSPORTATION.

STATE HIGHWAY ADMINISTRATION

SPECIAL PROVISIONS INSERT

308 — EROSION AND SEDIMENT CONTROL

CONTRACT NO. AX7665D82 2 of 16

Seed and Turfgrass Sod	920.06
Straw Bales	921.08
2 to 3 in. Stone	M 43, No. 2
3/4 to 1-1/2 in. Stone	M 43, No. 4
No. 57 Stone	M 43, No. 57

308.02.01 Filter Log Casing. Produced from 5 mil thick continuous high-density polyethylene or polypropylene, woven into a tubular mesh netting material with openings in the knitted mesh of 1/8 in. to 3/8 in.

308.03 CONSTRUCTION.

308.03.01 Preliminary. Prior to beginning any construction activity, complete the following.

- a) Attend a Pre-Construction Erosion and Sediment Control Meeting with the Engineer and the Regional Environmental Coordinator (REC) to discuss ESC schedule, responsibilities, and modification procedures.
- b) Submit the location of the nearest official National Weather Service (NWS) gauge station. Alternatively, a gauge station may be installed. Alternate gauge station proposals must be acceptable to and approved by the Engineer and the REC. Include detailed information regarding the type, location, accuracy, methodology, and security of the rain gauge in the proposal for consideration.
- c) Demarcate all wetlands, wetland buffers, floodplains, waters of the United States (WUS), tree protection areas, and the Limit of Disturbance (LOD) per Section 107. Ensure the demarcations are inspected and approved.

308.03.02 Contractor Responsibilities. Prior to beginning any earth disturbing activity, complete the following.

- (a) Install ESC measures per 308.03.03. Ensure that controls are inspected and approved.
- (c) Ensure that all stormwater runoff from disturbed areas is directed to installed ESC measures.
- (d) Do not remove any ESC measure without the approval from the Regional Environmental Coordinator (REC).
- (e) Ensure that dewatering practices do not cause any visible changes to stream clarity.

308.03.02 Standards and Specifications. Construct and maintain in good working order all ESC measures as specified and in accordance with the latest versions of the following.

(a) Maryland Department of the Environment (MDE) ESC and stormwater management (SWM) regulations, including but not limited to the pertinent sections of the Annotated Code of

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Maryland and the Code of Maryland Regulations (COMAR).

- (b) MDE "Maryland Standards and Specifications for Soil Erosion and Sediment Control."
- (c) MDE "Maryland Stormwater Design Manual, Volumes I and II."
- (d) SHA Field Guide for Erosion and Sediment Control.

Keep a copy of the MDE "Maryland Standards and Specifications for Soil Erosion and Sediment Control" on the project site throughout the duration of the Contract.

308.03.03 Erosion and Sediment Control Plan and Sequence of Construction. Implement the approved ESC plan and Sequence of Construction. All changes to the approved ESC plan or Sequence of Construction require Administration approval. Submit modifications to the approved ESC plan and Sequence of Construction to the Administration using the QA Toolkit at least 14 days prior to the desired time to implement the change. Ensure that all changes are approved before implementing the change.

Submit modifications overlaid on approved plans. Ensure submittals are full-size, reasonably legible, clear, and easily understood; use the standard symbology and names of ESC measures in the Contract Documents; and follow the design requirements specified in 308.03.02 (a) through 308.03.02 (d).

When requested by the Administration, obtain the services of a Professional Engineer, licensed in the State of Maryland, to develop the ESC modification submittals.

308.03.04 Erosion and Sediment Control Manager (ESCM). At least 10 days prior to beginning any work, assign and submit the name and credentials for approval an Erosion and Sediment Control Manager (ESCM). Ensure that the ESCM and the superintendent have successfully completed the MDE "Responsible Personnel Certification Training for Erosion and Sediment Control" and the Administration's "Erosion and Sediment Control Certification Training for Contractors and Inspectors." The certifications must be current for the entire duration of the Contract. If the certification expires or is revoked for either person, immediately replace the person with an appropriately qualified and certified person acceptable to the Administration. No work may proceed without the appropriate certified personnel in place. Any substitutes for the ESCM will be subject to approval. The Administration reserves the right to require a reassignment of the ESCM duties to another individual for any reason.

The ESCM is primarily responsible for and has the authority to implement the approved ESC plans, schedules, and methods of operation for both on-site and off-site activities. The ESCM's duties and responsibilities include the following.

- (a) Attendance at the Pre-Construction ESC Field Meeting and periodic field meetings to evaluate the effectiveness of measures already installed and to plan for the implementation of necessary controls proposed for succeeding areas of soil disturbance.
- (b) Daily inspections of the ESC measures to ensure that all measures are always in place and to

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develop a list of activities and schedules to ensure compliance with the Contract Documents.

- (c) Maintenance of a log of the daily inspections in 308.03.04 (b), including actions taken, and submit a written report at the end of each work day.
- (d) With the Engineer, conducting post-storm inspections both during and beyond normal working hours and submitting a written report.
- (e) Having the authority to mobilize crews to make immediate repairs to the ESC measures during working and non-working hours.
- (f) When requested, accompanying the Engineer during REC inspections and inspections made by regulatory agencies.
- (g) Coordinating with the Engineer to ensure that all deficiencies are immediately corrected and that the project always complies with the approved ESC plan.

308.03.05 Quality Assurance Ratings. The REC will routinely inspect the Project Site to ensure compliance with the approved Erosion and Sediment Control (ESC) and Stormwater Management (SWM) Plans. The REC will assign scores based on these inspections. The scores will be reported on Form No. OOC61/QA-1: Erosion/Sediment Control and Stormwater Management Field Investigation Report. The REC will use the scores to determine the following ratings.

SCORE	RATING
<u>≥</u> 90.0	А
80.0 - 89.9	В
70.0 - 79.9	С
60.0 - 69.9	D
< 60.0	F

Quality Assurance Ratings

- (a) **Rating A.** The Project complies with the approved plan. Minor corrective actions may be necessary.
- (b) **Rating B.** The Project generally complies with the approved plan; however, corrective actions are necessary.
- (c) **Rating C.** The Project generally complies with the approved plan; however, deficiencies noted require corrective action within 72 hours and shutdown conditions may arise quickly. The Project Site will be re-inspected within 72 hours and routine inspection frequency may increase.

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 - (d) **Rating D.** The Project is in non-compliance. The Administration will shut down earthwork operations. Focus work efforts on correcting ESC deficiencies. The Project Site will be reinspected within 72 hours. Complete all required corrective actions within the 72-hour period for the Project to be upgraded to a 'B' rating. Failure to upgrade the Project from a 'D' rating to a 'B' or better rating will result in the Project being rated an 'F'. Liquidated damages will be imposed for each day the Project has a 'D' rating and inspection frequency may increase.
 - (e) Rating F. The Project is in non-compliance. An 'F' rating indicates one or more of the following.
 - (1) A score of less than 60.
 - (2) Required permits and approvals have not been obtained.
 - (3) The approved LOD has been exceeded.
 - (4) Wetlands, wetland buffers, waters of the US (WUS), floodplains, and/or tree preservation areas have been encroached upon without prior necessary and adequate approval.
 - (5) The work is not proceeding per the approved ESC plan, Sequence of Construction, and/or ESC schedule.

When a project is in non-compliance, the Administration will shut down the entire project until the project receives a 'B' or better rating. Focus all work efforts on correcting ESC deficiencies. Liquidated damages will be imposed for each day the Project has an 'F' rating and inspection frequency may increase

308.03.06 Shutdowns. If a Project is rated 'C', correct all deficiencies within 72 hours. The Project Site will be re-inspected at the end of the 72-hour period. If the deficiencies have not been satisfactorily corrected, the Project will be rated 'D' and all earthwork operations will be shut down.

If consecutive 'C' ratings are received, expect notification that the overall effort appears marginal and that a shutdown of all earthwork operations is imminent if ESC efforts do not substantially improve within 72 hours. The Project Site will be re-inspected at the end of the 72-hour period. If the deficiencies are not satisfactorily corrected, or if other deficiencies are identified, and the Project receives less than a 'B' rating, a 'D' rating will be given and all earthwork operations will be shut down.

If the deficiencies are not corrected in 72 hours, an 'F' rating will be given, and the entire Project will be shut down. When degradation to a regulatorily protected resource, occurs or has already occurred, or if corrective measures remain uncompleted after the 72-hour period, the Administration may elect to have the corrective actions performed by another contractor or by Administration personnel.

The second time that a Project is rated 'F', the ESC Training Certificate issued by the

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Administration will be immediately revoked from the superintendent and the ESCM for at least six-months and until successful completion of the Administration's Erosion and Sediment Control Certification Program. Immediately replace the superintendent and ESCM and focus all work efforts on correcting ESC deficiencies.

308.03.07 Severe Weather Event. Maintain, repair, or replace any damaged ESC measures within 72 hours of a severe weather event occurrence.

Refer to GP-7.12 for unforeseen conditions.

308.03.08 Pre-Construction Conference. Present a general overview at the Pre-Construction Conference of how ESC measures shall be implemented.

308.03.09 Initial Controls. Install all perimeter controls, such as silt fence, super silt fence, earth dikes, sediment traps, and sediment basins, prior to grubbing operations.

If it is determined that the clearing area has been disturbed and a potential for sediment runoff or erosion exists, install the controls at that time as directed.

308.03.10 Maintenance. Always maintain ESC measures throughout the life of the Contract, whether active or inactive. Maintain access to all ESC measures until they are removed.

Inspect ESC measures immediately after storm events. Clean out as necessary and repair or replace all damaged ESC measures as the first order of business after the storm event.

308.03.11 Stabilization Requirements. Following initial soil disturbance, complete permanent or temporary stabilization within the following.

- (a) Three calendar days for the surface of all perimeter dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and
- (b) Seven calendar days as to all other disturbed or graded areas on the Project not under active grading.
- (c) Areas between temporary berms, except median areas, need not be stabilized during incremental stabilization.
- (d) Sensitive areas may require less than three- or seven-day stabilization. Maintain as necessary to ensure continued stabilization.
- (e) Track slopes within two days of establishment per 701.03.

308.03.12 Waste Areas. From the appropriate authority and while coordinating with the Engineer, obtain approval for off-site waste areas not delineated in the Contract Documents. Protect waste areas and stockpile areas with ESC measures per 308.03.11 (a) and (b).

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308.03.13 MDE Inspections. Work is subject to field inspections by MDE. If non-compliance is determined, the MDE Water Management Administration (WMA) inspector will immediately notify the Engineer of needed corrective actions. Corrective actions may require a shutdown of construction activities until the non-compliance is satisfactorily corrected. Focus all efforts on correcting ESC deficiencies found during MDE inspections.

308.03.14 Stabilized Construction Entrance (SCE). Construct stabilized construction entrances (SCEs) as specified.

Rehabilitate SCEs with periodic top dressing using additional aggregate, replacing the drainage pipe beneath the SCE if one was installed, or making other repairs to the SCE and sediment trapping devices.

When necessary, place wash racks to prevent tracking of mud and sediment from disturbed areas onto roadways or other areas.

308.03.15 Side or Berm Ditches and Culverts. Construct side ditches in fill areas and berm ditches in cut areas. Construction includes the installation of lining. Protect linings from sediment deposits. Place silt fence along the banks of existing streams as specified prior to placing any culverts. To help avoid sedimentation during construction, divert the streams around the location of the culvert until the proposed culvert and channel are stabilized.

308.03.16 Erosion and Sediment Control Original Excavation. Excavate, construct embankments, grade, and backfill for sediment traps, sediment basins, and other ESC measures.

Ensure that excavation and embankments meet the dimensions for each ESC measure as specified. Stockpile excavated material and use for backfill when the ESC measures are removed.

308.03.17 Erosion and Sediment Control Cleanout Excavation. Remove accumulated sediment from ESC measures and other areas during routine maintenance of ESC measures and as directed.

Clean out sediment traps as necessary to ensure that at least 50 percent of the wet storage capacity is always available. Ensure that riprap outlet sediment traps have at least 75 percent of the wet storage capacity always available. Remove sediment from silt fence and super silt fence when sediment reaches 25% of the height of the fence and from stone check dams when sediment reaches 50 percent of the height of the dams. Remove sediment from stone outlet structures when sediment is within 6 in. of the weir crest.

Place removed sediment in an approved waste site. Material stored on-site may be reused once it is dried and if it meets embankment requirements unless otherwise specified.

308.03.18 Heavy Use Areas. Locate and size heavy use areas used for activities such as staging and storage. From the appropriate authority and while coordinating with the Engineer, obtain approval for off-site heavy use areas not delineated in the Contract Documents. Obtain any necessary permits or modifications for non-specified heavy use areas.

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308.03.19 Stockpile Areas. Locate and size stockpile areas. From the appropriate authority and while coordinating with the Engineer, obtain approval for off-site stockpile areas not delineated in the Contract Documents. Obtain any necessary permits or modifications for non-specified stockpile areas.

308.03.20 Earth Dike. Do not use sod as stabilization unless specifically approved.

308.03.21 Temporary Swale. Do not use sod as stabilization unless specifically approved.

308.03.22 Perimeter Dike Swale. Do not use sod as stabilization unless specifically approved.

308.03.23 Pipe Slope Drain. When slope drains are placed on grade, construct interceptor berms to direct flow into the flared end section.

308.03.24 Stone Check Dam. Construct using Class 0 riprap.

308.03.25 Riprap Inflow Protection. Construct per Section 312.

308.03.26 Gabion Inflow Protection. Construct per Section 313.

308.03.27 Rock Outlet Protection. Construct per Section 312.

308.03.28 Gabion Outlet Protection. Construct per Section 313.

308.03.29 Plunge Pool. Construct per Section 312.

308.03.30 Super Silt Fence. Construct as specified with the following exception:

Run a 7-gauge top tension wire continuously between posts.

308.03.31 Filter Berms. Construct berms of wood chips and up to 50 percent compost.

308.03.32 Filter Log. Use compost for the filter media. Install filter logs parallel to contours and perpendicular to sheet flow from disturbed areas.

Where a connection is needed, there are two options based on whether the filter log is being filled on-site or offsite. Overlap prefilled filter logs by 1-ft minimum and staked where they connect. Sleeve filter log casings that are filled onsite. After one filter log section is filled and tied off (knotted), pull the second filter log section over the first (2 ft) and "sleeve," creating an overlap.

Remove sediment when it has accumulated to a depth of half the exposed height of the filter log. Replace the filter log if torn or damaged. Reinstall the filter log if undermining or dislodging occurs.

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Drive stakes perpendicular to water flow at a maximum of 8 ft intervals. Restrict vehicular and construction traffic from crossing filter logs.

Upon stabilization of the drainage area to the filter log and with approval, remove stakes. The filter log may be left in place and vegetated, or removed. In the former case, cut the filter log casing open, remove all non-biodegradable material, spread the compost as a soil supplement, and seed as specified.

308.03.33 Filter Bag. Determine the bag dimensions necessary to provide the required storage volume, determine pump and hose sizes, and install.

308.03.34 Straw Bales. Embed the bales to a depth of at least 4 in., and anchor in place with two No. 4 reinforcement bars, steel pickets, or 2×2 in. wood stakes, 36 in. length. Locate the anchoring devices at approximate third points along the longitudinal center line of each bale, driven through the bale and into the ground to a depth of 12 to 18 in.

308.03.35 Stone Outlet Structure. Stabilize the area immediately after removal of the structure.

308.03.36 Temporary Gabion Outlet Structure. As specified in Section 313. Grade and stabilize the area beneath the structure, immediately upon removal.

308.03.37 Portable Sediment Tank. Determine the dimensions necessary to provide the required storage volume.

308.03.38 Dewatering. Dewater only when conditions allow. Ensure that dewatering activities do not cause any visible change to stream clarity. If a sediment plume is visible, immediately cease the dewatering activity. Direct any pumping activity, including dewatering sediment traps and basins, through an approved dewatering device.

308.03.39 Sediment Traps. Excavate sediment traps to the specified length, width, and depth.

At locations where filtration facilities are specified, prevent runoff from adjacent unstabilized areas from entering the locations. Ensure that bottom elevations of sediment control devices are at least 2 ft higher than the finished grade bottom elevation. When converting a sediment trap to a permanent stormwater facility, remove and dispose of all accumulated sediment prior to final grading.

When grading and paving operations are complete and vegetation is established on the slopes and channels to the satisfaction of the Engineer, refill the sediment traps with suitable materials, shape, and permanently stabilize as specified.

308.03.40 Stone for Sediment Control. Place No. 57 aggregate, 3/4 to 1-1/2 in. stone, 2 to 3 in. stone, 4 to 7 in. stone, and riprap as specified.

308.03.41 Maintenance of Stream Flow. Maintain the continuous flow of waterways during operations as specified and as directed.

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- (a) Implement the approved ESC plan. Any changes to the approved ESC plan require approval from the appropriate regulatory authorities.
- (b) A different plan for maintenance of stream flow may be submitted, but approval from the Engineer and the appropriate approval authority is required.
- (c) If the stream diversion system as shown is not capable of blocking the flow of water through the soil beneath the system, design and provide an effective means of diverting the water away from the designated areas.
- (d) Ensure that all excavation performed within the diverted stream is performed in a dewatered condition, which may require additional pumps, sheeting, shoring, cofferdams, etc.
- (e) If the proposed system does not perform satisfactorily or additional material and equipment is required to dewater the site and excavated areas, adjust the stream diversion system and obtain approvals from the appropriate approving authorities.
- (f) Securely anchor the stream diversion system in place to prevent movement during high water events. Submit the proposed method of anchoring for approval. Do not install anchors beyond the limits of disturbance (LODs) or infringe on the channel area available for stream flow.
- (g) Upon completion of construction and when temporary drainage devices are no longer necessary, with the approval of the REC and the Engineer, remove and dispose of the devices in an acceptable manner.

308.03.42 Sandbags. Furnish and install sandbags to contain or divert water and sediment as specified and as directed.

308.03.43 Removal of Controls. Do not remove ESC measures until all previously disturbed areas are vegetated with at least a 3-in. growth of grass, and removal of the ESC measures is approved by the REC and the Engineer. Immediately stabilize those areas where ESC measures are removed as specified and as directed.

308.04 MEASUREMENT AND PAYMENT. The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work. The maintenance, repair, removal and resetting, and final removal of ESC measures will not be measured, but the cost will be incidental to the Contract price to construct the device unless otherwise specified.

308.04.01 ESCM will not be measured but the cost will be incidental to the ESC items.

308.04.02 Implementation of the ESC Plan will not be measured but the cost will be incidental to the Erosion and Sediment Control items.

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308.04.03 No claims against the Administration will be considered due to a shutdown of the grading operations or the entire project. When corrective actions are performed by another contractor or by the Administration, all costs associated with the work will be billed to the original Contractor.

308.04.04 When specified, a project may include incentive payments. Starting at the Notice to Proceed, an Incentive Payment will be made for a rating quarter consisting of 3 months when at least four inspections were performed by the REC and an average score equal to or greater than 85.0 for the entire rating quarter is received. The quarterly incentive payment will be made within 60 days after the end of the rating quarter. No incentive will be paid for partial quarters or for quarters with less than four inspections. No incentives will be paid for any quarter in which a 'D' or 'F' rating is received. When a project receives no 'D' or 'F' ratings and the overall average score is equal to or greater than 85.0, the final incentive payment will be made at final project closeout. If a time extension is granted, additional quarterly incentive payments will be drawn from the final incentive payment.

308.04.05 Whenever a project is rated 'D' or 'F', the Liquidated Damages will be assessed. Liquidated Damages must be paid within 30 days from the date of notification.

308.04.06 Incentive Payments and Liquidated Damages. The Contract Documents will specify the amounts of incentive payments and liquidated damages that apply if applicable.

308.04.07 Replacement of ESC measures that are damaged and replaced as a result of a Severe Weather Event will be measured and paid for at the Contract unit prices provided that a Quality Assurance Rating of "B" or better was obtained in the previous rating. Restabilization of damaged areas will be measured and paid for at the Contract unit prices. Other damages as a result of an event are subject to TC-7.03.

308.04.08 Stabilized Construction Entrance will be measured and paid for per each and includes all excavation, geotextile, aggregate, pipe, rehabilitation, relocation and incidentals to complete the work.

308.04.09 Wash Racks for Stabilized Construction Entrance will be measured and paid for per each and includes racks, excavation, wash water and incidentals to complete the work.

308.04.10 Erosion and Sediment Control Original Excavation will be measured and paid for at the Contract unit price per cubic yard. The payment will include excavation, backfill, grading and disposal.

308.04.11 Erosion and Sediment Control Cleanout Excavation will be measured and paid for at the Contract unit price per cubic yard. The payment will also include excavation and disposal.

308.04.12 Temporary Mulch will be measured and paid for as specified in 704.04.01.

308.04.13 Temporary Seed will be measured and paid for as specified in 704.04.02.

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308.04.14 Turfgrass Sod will be measured and paid for as specified in 708.04.01.

308.04.15 Soil Stabilization Matting will be measured and paid for as specified in 709.04.

308.04.16 Temporary earth berms and interceptor berms for incremental stabilization will not be measured, but the cost will be incidental to the excavation items specified in the Contract Documents.

308.04.17 Heavy Use Areas will not be measured but will be incidental to the pertinent items.

308.04.18 Stockpile Areas will not be measured but will be incidental to the pertinent items.

308.04.19 Earth Dikes will be measured and paid for at the Contract unit price per linear foot. 4 to 7 in. stone, temporary seeding, and soil stabilization will be measured and paid for as specified in 308.04.60, 704.04, and 709.04, respectively.

308.04.20 Temporary Swales will be measured and paid for at the Contract unit price per linear foot. 4 to 7 in. stone, temporary seeding, and soil stabilization matting will be measured and paid for as specified in 308.04.60, 704.04, and 709.04, respectively.

308.04.21 Perimeter Dike/Swales will be measured and paid for at the Contract unit price per linear foot. Temporary seeding and soil stabilization matting will be measured and paid for as specified in 704.04 and 709.04, respectively.

308.04.22 Temporary storm drain diversions will be measured and paid for at the Contract unit price per linear foot of the size specified and will include all grading, pipe, connections and any incidentals necessary to complete the work.

308.04.23 Temporary Asphalt Berm will be measured and paid for at the Contract unit price per linear foot. The removal of the temporary asphalt berm will not be measured but the cost will be incidental to the Contract price.

308.04.24 Clear Water Diversions will be measured and paid for at the Contract unit price per linear foot of the size specified and will include all pipe, connections, anchors, sandbags, sheeting, dewatering and any incidentals necessary to complete the work.

308.04.25 Temporary Barrier Diversions will be measured and paid for at the Contract unit price per linear foot and will include all barrier, sandbags, sheeting, dewatering and any incidentals necessary to complete the work.

308.04.26 Mountable Berms will be measured and paid for at the Contract unit price per each and will include all earthwork, stone, geotextile, and any incidentals necessary to complete the work.

308.04.27 Diversion Fence will be measured and paid for at the Contract unit price per linear foot.

308.04.28 Pipe Slope Drain will be measured and paid for at the Contract unit price per linear

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foot. The payment will also include excavation, backfill, flared end section, geotextile, anchors, coupling bands, and pipe elbows.

308.04.29 Stone Check Dam will be measured and paid for as specified in 308.04.60.

308.04.30 Riprap Inflow Protection will be measured and paid for as specified in 308.04.60.

308.04.31 Gabion Inflow Protection will be measured and paid for as specified in 313.04.

308.04.32 Rock Outlet Protection will be measured and paid for at the Contract unit price per square yard of Riprap Slope and Channel Protection.

308.04.33 Plunge Pool will be measured and paid for at the Contract unit price per square yard of Riprap Slope and Channel Protection.

308.04.34 Silt Fence will be measured and paid for at the Contract unit price per linear foot.

308.04.35 Silt Fence on Pavement will be measured and paid for at the Contract unit price per linear foot of Silt Fence.

308.04.36 Super Silt Fence will be measured and paid for at the Contract unit price per linear foot.

308.04.37 Clear Water Pipes through Silt Fence or Super Silt Fence will not be measured but will be incidental to the pipe and silt fence items.

308.04.38 Filter Berms will be measured and paid for at the Contract unit price per linear foot.

308.04.39 Filter Logs will be measured and paid for at the Contract unit price per linear foot for the size specified.

308.04.40 Temporary Stone Outlet Structures will be measured and paid for as specified in 308.04.60. The baffle board and stakes will not be measured but the cost will be incidental to the Contract price.

308.04.41 Temporary Gabion Outlet Structures will be measured and paid for at the Contract unit price per each.

308.04.42 Standard Inlet Protection will be measured and paid for at the Contract unit price per each for Inlet Protection.

308.04.43 At Grade Inlet Protection will be measured and paid for at the Contract unit price per each for Inlet Protection.

308.04.44 Curb Inlet Protection will be measured and paid for at the Contract unit per each for Inlet Protection.

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308.04.45 Median Inlet Protection will be measured and paid for at the Contract unit per each for Inlet Protection.

308.04.46 Median Sump Inlet Protection will be measured and paid for at the Contract unit per each for Inlet Protection.

308.04.47 Combination Inlet Protection will be measured and paid for at the Contract unit per each for Inlet Protection.

308.04.48 Gabion Inlet Protection will be measured and paid for at the Contract unit per each for Inlet Protection.

308.04.49 Catch Basin Insert will be measured and paid for at the Contract unit price per each for Inlet Protection.

308.04.50 Removable Pumping Station will be measured and paid for at the Contract unit price per each. The payment will also include excavation, pipe, geotextile, wire mesh, steel plate, hose, pump, and connections.

Stone will be measured and paid for as specified in 308.04.60.

308.04.51 Sump Pit will be measured and paid for at the Contract unit price per each. The payment will also include excavation, pipe, geotextile, wire mesh, steel plate, hose, pump, and connections.

Stone will be measured and paid for as specified in 308.04.60.

308.04.52 Portable Sediment Tank will be measured and paid for at the Contract unit price per each. The payment will also include pipe, geotextile, wire mesh, steel plate, hose, pump, and connections. No adjustments will be made for resizing or relocating portable sediment tanks to meet stream clarity discharge requirements.

308.04.53 Filter Bags will be measured and paid for at the Contract unit price per each and will include pump, hoses, connections, straw bales, sizing, locating, relocating, disposal and any other incidentals necessary. No adjustments will be made for resizing or relocating to meet Permit conditions or turbidity requirements.

308.04.54 Sediment traps will be measured and paid for at the Contract unit price for one or more of the items listed below:

(a) Erosion and Sediment Control Original Excavation as specified in 308.04.10.

- (**b**) Pipe as specified in 303.04.
- (c) Stone as specified in 308.04.60.
- (d) Inflow protection as specified in 308.04.30 and 308.04.31.

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- (e) Baffle board and stakes will not be measured but the cost will be incidental to the other items.
- (f) Temporary risers will be measured and paid for at the Contract unit price per each.
- (g) Anti-seep collars will be measured and paid for at the Contract unit price per each.
- (h) Geotextile will not be measured but the cost will be incidental to the stone.
- **308.04.55** Sediment Basins will be measured and paid for at the Contract unit price for one or more of the following items:
 - (a) Earthwork as specified in 201.04.
 - (**b**) Pipe as specified in 303.04.
 - (c) Stone as specified in 308.04.60.
 - (d) Baffle board and stakes will not be measured but the cost will be incidental to the other items.
 - (e) Temporary risers will be measured and paid for at the Contract unit price per each and include trash racks, draw down devices, concrete bases, projection collars, riser connectors and any other incidentals.
 - (f) Modifying Stormwater Management Riser Structures and installing dewatering pipe systems will be measured and paid for at the Contract unit price per each for Convert Stormwater Management Riser for Sediment Control. Converting the risers back to their permanent state will be incidental to pipe.
 - (g) Anti-seep collars will be measured and paid for at the Contract unit price per each.
 - (h) Geotextile will not be measured but the cost will be incidental to the stone.

308.04.56 Temporary Access Bridge will be measured and paid for at the Contract Lump Sum price.

308.04.57 Temporary Access Culvert will be measured and paid for at the Contract unit price per linear foot.

308.04.58 Onsite Concrete Washout Structures will not be measured but will be incidental to the various concrete mixes.

308.04.59 Restabilization will not be measured when permanently stabilized areas are disturbed by grading operations or other activities not specifically approved.

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SPECIAL PROVISIONS INSERT 308 — EROSION AND SEDIMENT CONTROL

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308.04.60 Stone for sediment control will be measured and paid for at the Contract unit price per ton for the pertinent Stone for Sediment Control item. Geotextile, excavation, and backfill will not be measured but the cost will be incidental to the Contract price.

308.04.61 Straw Bales will not be measured but the cost will be incidental to the pertinent items with which they are used.

308.04.62 Maintenance of Stream Flow will not be measured but will be paid for at the Contract lump sum price. The payment includes design, redesign providing diversion structures regardless of the type required to satisfactorily divert the stream flow, anchoring of the system, excavation, backfill, dewatering the site and excavation within the stream diversion area, maintenance of the diversion system, sandbags, polyethylene sheeting, diversion pipes, pumps, hoses, connections, portable sediment tanks and obtaining any necessary permits. Payment will not be adjusted for alternative stream diversion systems regardless of any changes in quantities from that shown in the Contract Documents. The provisions of GP-4.05 will not apply to this work.

Cleanup and restoration of the stream diversion area that is damaged and replaced as a result of a Severe Weather Event will not be measured but paid for according to TC-7.03.

308.04.63 When sandbags are specified for use other than when incidental to 308.04.24, 308.04.25, 308.04.62, or otherwise specified as incidental, sandbags will be measured and paid for per cubic yard.

SPECIAL PROVISIONS 308 — EROSION AND SEDIMENT CONTROL

CATEGORY 300 DRAINAGE

SECTION 308 — EROSION AND SEDIMENT CONTROL

308.01 DESCRIPTION.

ADD: The following after the third paragraph.

General Notes.

- (a) Notification. If an Erosion and Sediment Control Approval is issued for this project, notify the Regional Environmental Coordinator in writing or by telephone at 410-365-0164 prior to the following milestones:
 - (1) Pre-construction meeting.
 - (2) Erosion and sediment control meeting (minimum 7 working days prior to commencing earth disturbing activities).
 - (3) Installation of initial sediment control measures.
 - (4) Installation of major sediment control basins/traps.
 - (5) Removal or modification of any sediment control structures.
 - (6) Removal of all sediment control devices.
 - (7) Final acceptance by the Administration.
- (b) **Ingress/Egress Controls.** Protect all points of construction ingress and egress to prevent the deposition of materials on public roads. Immediately remove all materials deposited on public roads. The flushing of road surfaces is prohibited.

Control all ingress and egress points through the use of a stabilized construction entrance. Submit locations for approval by the Regional Environmental Coordinator.

- (c) **Inspection.** Inspect all erosion and sediment control measures daily and after storm events. Maintain continuously in an effective operating condition.
- (d) Shutdowns and/or Penalties. Total compliance with the approved erosion and sediment control plan is expected at all times. In cases where the Contractor is found to be in non-compliance, the Administration may take steps to impose partial or total shutdowns and impose per day penalties for non-compliance.

The Administration may impose a total or partial shutdown if the project may adversely impact the waters of the State.

(e) **Record Keeping.** Make the project's approval letter, approved erosion and sediment control plans, approved change requests, daily log books and test reports available on-site for inspection by duly authorized officials.

SPECIAL PROVISIONS

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- 308 EROSION AND SEDIMENT CONTROL
 - (f) Erosion and Sediment Control Excavation. Place silt removed from control devices in an approved waste site either on or off the project. Material stored on-site may be reused once it is dried and if it conforms to the Administration's requirements for embankment or any unspecified need.
 - (g) Utility Work. Follow these additional best management practices for sediment control for utility construction in areas outside of designed controls:
 - (1) Call "Miss Utility" at 1-800-257-7777 48 hours prior to the start of work.
 - (2) Place excavated material on the high side of the trench.
 - (3) Backfill, compact and stabilize trenches for utility installations at the end of each working day. When this is not possible, follow (4).
 - (4) Place temporary silt fences immediately downstream of any disturbed area intended to remain disturbed for more than one day.
 - (h) Sensitive Areas. No construction activities are allowed within specified sensitive areas of the project without prior notification of the Engineer. Designate a responsible party to monitor all work in these areas to assure that reasonable care is taken in or adjacent to these areas. Areas considered sensitive are defined as: floodplains, wetlands (tidal, nontidal and associated buffers) critical areas, forested areas, archeological sites, historic sites, parkland, and open water.
 - (i) Standard Stabilization Note. Following initial soil disturbance or redisturbance, complete permanent or temporary stabilization within 3 calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3:1; and 7 days as to all other disturbed or graded areas on the project site.

(j) Site Information (Not for Bidding Purposes).

(1) Total area of site	acres
(2) Area disturbed	acres
(3) Area to be roofed or paved	acres
(4) Total cut	cubic yards
(5) Total fill	cubic yards

(6) Off-site waste/borrow area location (if known)

- (k) Incremental Stabilization. Refer to the current Maryland Standards and Specifications for Soil Erosion and Sediment Control for the incremental stabilization of cuts and fills.
- (l) **Disturbed Areas.** Place excavated trench material for any storm drain pipe and underdrain pipe installation on the high side of the trench. Backfill, compact, and stabilize trenches for any storm drain pipe and underdrain pipe installations at the end of each working day.

SPECIAL PROVISIONS

308 — EROSION AND SEDIMENT CONTROL

Stabilize all other disturbed areas at the end of the working day. Place silt fence downgrade of any areas that cannot be stabilized at the end of the work day such that all runoff from the disturbed area will be filtered.

(m) **Removal of Controls.** Establish permanent stabilization for all contributory disturbed areas and obtain permission prior to the removal of sediment control measures.

Immediately stabilize any areas disturbed by the removal of sediment control measures.

(n) Notice of Enforcement. Sediment and erosion control regulations will be strictly enforced.

Design Certification. Insert the following:

ENVIRONMENTAL INFORMATION

MDE/ PRD #

DESIGN CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I & II INCLUDING SUPPLEMENTS, THE ENVIRONMENT ARTICLE SECTIONS 4-101 THROUGH 116 AND SECTIONS 4-201 AND 215, AND THE CODE OF MARYLAND REGULATIONS (COMAR) 26.17.01 AND COMAR 26.17.02 FOR EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT, RESPECTIVELY.

NAME

SIGNATURE

MARYLAND REGISTRATION NUMBER P.E., R.L.S. OR R.L.A. (circle) DATE

"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO._____, EXPIRATION DATE:_____." MIDTMARYLAND DEPARTMENT OF TRANSPORTATION.

STATE HIGHWAY ADMINISTRATION

SPECIAL PROVISIONS INSERT 317 — STORMWATER MANAGEMENT (SWM) FACILITY AS-BUILT CERTIFICATION

CONTRACT NO. AX7665D82 1 of 7

CATEGORY 300 DRAINAGE

SECTION 317 — STORMWATER MANAGEMENT (SWM) FACILITY AS-BUILT CERTIFICATION

317.01 DESCRIPTION. Submit a certification package that affirms that stormwater management (SWM) facilities and practices are constructed as specified or are functionally equivalent to the designs in the approved SWM Report, revising the certification package as needed until approved.

317.01.01 SWM As-Built Engineer. The SWM As-Built Engineer (ABE) is responsible for assembling and certifying the SWM certification package. Duties include adequately documenting that the SWM facilities have been constructed as specified, and performing inspections during pertinent construction activities for SWM facilities and practices. The ABE shall be a Professional Engineer (P.E.) registered and licensed in the State of Maryland and who has at least three years of experience in SWM facility design and SWM facility construction. Submit one copy of the ABE's resume to the Engineer. The resume shall include the following.

- (a) Full name of the ABE, License No. and expiration date.
- (**b**) Name of employing company or firm.
- (c) Contact information.
- (d) Relevant work experience.
- (e) Proof of valid certification of the Maryland Department of the Environment (MDE) Responsible Personnel for Erosion and Sediment Control training course (formerly "Green Card"). Note: All certifications for the former course MDE Responsible Personnel Training for Erosion and Sediment Control ("Green Card") expired on December 31, 2016 and are no longer valid.

The ABE shall have the option to use designees, who are under the direct supervision of the ABE, to perform the following duties on behalf of the ABE.

- (a) Documenting that the SWM facilities have been constructed as specified, including writing activity inspection reports, taking photographs, and obtaining copies of material approvals and material test results.
- (b) Performing inspections during pertinent construction activities for SWM facilities and practices, completing the pertinent portions of the SWM facility as-built certification data tables.

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When the ABE elects to use designees, submit the names and resumes indicating their experience in the design and inspection of SWM facilities, of those designees authorized by the ABE to represent the ABE to the Engineer. Only authorized designees may represent the ABE for the limited duties specified.

317.01.02 SWM Facility As-Built Certification Package. The SWM facility as-built certification package contains documentation that verifies that that all SWM facilities and practices on the Contract have been constructed as specified or are functionally equivalent to the designs in the approved SWM Report.

The SWM facility as-built certification package shall include the following for each SWM facility in the Contract, presented neatly and legibly, and organized in an easy-to-follow format.

- (a) SWM facility construction inspection reports. The inspection reports shall include the following.
 - (1) The SWM facility identification number (BMP No. or SWM Fac. No.) and type of SWM facility or practice.
 - (2) The date and location of the activity.
 - (3) Photographs, taken during inspections, that clearly show the construction activities as listed on the pertinent SWM facility as-built data tables, with narrative descriptions of what appears in the photographs, the dates the photographs were taken, and the locations.
 - (4) Verification of whether SWM facility as-built construction is as specified, noting any deviations from the Contract Documents and how the deviations have been addressed.
- (b) Photographs of SWM facilities and practices after all landscaping has been installed and established, with narrative descriptions of what appears in the photographs.
- (c) Copies of pertinent material approval forms.
- (d) Copies of pertinent material and installation test reports and results.
- (e) Completed as-built certification data tables.
- (f) Green line as-built surveys of the SWM facilities and practices signed and sealed by a Professional Land Surveyor (PLS) who is registered and licensed in the State of Maryland. The as-built survey data shall be overlaid on the appropriate Contract plan sheet(s) and profile sheets, at the same scale and datum, and are coordinately correct. The as-built survey data shall be green in color, clearly legible and easily distinguishable from the

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Contract Document information. The SWM facility as-built surveys shall include the following.

- (1) **Contours.** One-foot contour intervals or otherwise match the contour intervals shown in the Contract Documents. Contours shall cover the entire footprint of the SWM facility or practice as well as inflow and outflow conveyances when ditches or similar features convey runoff into or out of SWM facilities and practices.
- (2) **Drainage Structures.** Includes all drainage structures within the footprint of the SWM facility, including but not limited to inlets, manholes, flow splitters, risers, weirs, end sections, headwalls, and end walls. As-built data shall include but is not limited to top of structure elevations, structure lengths, and structure widths; pipe inverts; pipe sizes, materials, and flow directions; orifice elevations; opening sizes; weir dimensions and elevations; check dam locations and dimensions; grates; and trash racks.
- (3) **Riprap and Aggregate.** Includes dimensions of riprap and other areas within the footprint of the SWM facility and practice that show a surface layer of aggregate or riprap, including forebays.
- (4) Embankment Information. Includes embankment heights, widths, and elevations; clay core locations, dimensions, and elevations; cut-off trench locations, dimensions, and elevations; pertinent filter diaphragm information; and pertinent pipe cradle information. Data that cannot be obtained from a field survey shall be provided by the ABE for inclusion with the SWM facility as-built survey.
- (5) SWM Facility Maintenance Access Roads.
- (6) Fences. Includes fence that surrounds the footprint of the SWM facility or practice.
- (7) SWM Facility Profiles. Includes an overlay of green line as-built data on SWM facility profiles and typical sections including but not limited to check dam spacing, check dam top elevations, check dam dimensions, invert elevations, subdrain sizes, subdrain materials, aggregate and soil thicknesses, material types, clay core dimensions, and cut-off trench dimensions. Data that cannot be obtained from a field survey shall be provided by the ABE for inclusion with the SWM facility as-built survey.
- (8) Certification. Seal, signature, license number, and date of license expiration of the PLS who completes the SWM facility as-built survey.
- (g) Applicable supporting computations demonstrating that the functionality of the SWM facilities and practices meet the approved designs as presented in the approved SWM Report. This is only necessary when tolerances are not met and shall include but is not limited to water surface elevations, freeboard, storage volumes, depths, and other pertinent

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SWM functionality data that demonstrates the SWM facility performances meets the approved design.

- (h) A narrative of justification for as-built deviations in SWM facilities and practices. This is only necessary when 317.01.02 (g) applies.
- (i) A copy of Final Acceptance from the Administration's Landscape Operations Division for the landscaping establishment.
- (j) Seal, signature, license number, and date of license expiration of the ABE.

317.01.03 Information Supplied by the Administration. Upon written request, the Administration will provide CADD files in DGN format and the approved Final SWM Report in PDF format to facilitate completion of the SWM facility as-built certification package. Submit requests to the Engineer.

317.01.04 Submittals and Approval Process. Partial submittals of the SWM facility as-built package may be made as construction of each individual SWM facility and practice is completed. Otherwise, submit the entire SWM facility as-built package within 45 days of completion of construction activities associated with all SWM facilities and practices but not including establishment of the specified landscaping items. The landscaping phase of SWM facilities and practices need not be completed to submit the SWM facility as-built certification package for Structural Acceptance but is required for Final Approval.

Resubmit the SWM facility as-built package with responses to all Administration comments that may be received. Resubmit as many times as necessary, updating the SWM facility as-built package as needed to address all Administration comments, and making any field adjustments as needed to correct deficiencies, until Structural Acceptance is issued. Some SWM facility types require approval from the Maryland Department of the Environment (MDE) in addition to approval from the Administration. Resubmit the SWM facility as-built package with responses to all MDE comments that may be received. The Administration will coordinate reviews and correspondence with MDE.

Concurrent with the Administration review of the SWM facility as-built certification package for Structural Acceptance, ensure establishment of landscaping items continues and ensure the area is permanently stabilized. Once landscaping is established, ensure the remaining data table information is completed and submit the SWM facility as-built certification package for Final Approval.

Submit the SWM facilities as-built package through the Quality Assurance (QA) Toolkit.

317.02 MATERIALS. Not applicable.

317.03 CONSTRUCTION. Designate an ABE prior to beginning construction of SWM facilities and practices.

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Failure to receive approval for the ABE, failure to submit information about the ABE designees, or failure of the ABE, or the ABE designees, to adequately monitor the specified construction activities will be grounds for replacement of the ABE and reconstruction of all work on SWM facilities and practices that may have already been performed.

Perform all construction activities on SWM facilities and practices only in the presence of the ABE or the ABE designee. Failure to perform work in the presence of the ABE or the ABE designee will be grounds for removal and replacement of the ABE, and reconstruction of all work that may have already been performed.

Prior to beginning or continuing construction activities of SWM facilities and practices, ensure the ABE or the ABE designee is present. If the ABE or ABE designee is not present, suspend work on SWM facilities and practices and do not resume until the ABE or ABE designee is present for the activities.

Whenever the ABE or the ABE designee indicates that SWM facilities and practices under construction do not match the Contract Documents, immediately correct the deficiencies before moving to the next construction activity associated with SWM facilities and practices. If it is not possible to correct deficiencies due to the site conditions or constraints and not due to negligence and inadequate quality of work, cease work on SWM facilities and notify the Engineer.

Upon completion of constructing SWM facilities and practices, perform an as-built survey of the completed facility per 317.01.02 (f). Complete installation and establishment of landscaping items need not be completed to perform the as-built survey of SWM facilities and practices.

Submit the SWM facility as-built certification package per 317.01.04. Update SWM facilities as-built surveys when adjustments are made to address comments that may be received.

317.03.01 ABE Responsibilities. Ensure that the ABE performs the following.

- (a) Is present for all activities specified on the SWM facilities as-built certification data tables, performs duties as specified, and records requisite information for the SWM facility as-built certification package. The ABE may elect to use a designee as specified in 317.01.01. Ensure the data is available at the Site and on-demand.
- (b) Prepares written inspection reports for construction activities associated with SWM facilities and practices. The ABE may elect to use a designee as specified in 317.01.01.
- (c) Takes photographs during construction activities of the SWM facilities and practices and of the completed SWM facilities, including photographs with completed landscape planting installation and establishment. The ABE may elect to use a designee as specified in 317.01.01.
- (d) Obtains copies of material approvals for items associated with the SWM facilities and practices. The ABE may elect to use a designee as specified in 317.01.01.

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- (e) Obtains copies of compaction test results for SWM facility embankments. The ABE may elect to use a designee as specified in 317.01.01.
- (f) Alerts the Contractor when SWM facilities and practices under construction do not match the Contract Documents. The ABE may elect to use a designee as specified in 317.01.01.
- (g) When necessary, performs all computations that demonstrate SWM facilities and practices function in the manner as presented in the approved Final SWM Report, including with all revisions to the report that may result from Redline Revisions. At a minimum, the parameters examined by the ABE shall include but are not limited to storage volumes, discharge rates, velocities, detention times, water surface elevations, freeboard, and all other information as recommended by the ABE and as requested by the Administration.
- (h) Obtains copies of as-built surveys for the SWM facilities and practices.
- (i) Prepares the SWM facility as-built certification package.

317.03.02 Construction Tolerances. As follows. Values outside of tolerance may require computations per 317.03.01 (g).

- (a) Earthwork. Elevations within 3 in. (0.25 ft) of values specified or as otherwise noted on the pertinent SWM facility as-built data table.
- (b) Embankments, Clay Cores, and Cut-Off Trenches. Elevations not less than the values specified.
- (c) Drainage Structures. Elevations within 1.25 in. (0.10 ft) of values specified.
- (d) Pipe Inverts. Elevations within 1.25 in. (0.10 ft) of values specified.
- (e) **Riprap.** Dimensions within 3 in. (0.25 ft) of values specified.
- (f) Freeboard. Not less than the values specified.
- (g) Aggregate, Sand, Bioretention Soil Mix (BSM), and Mulch Thicknesses. Not less than values specified.

When construction tolerances cannot be met due to unforeseen site conditions or constraints, ensure that calculations are performed by the ABE per 317.03.01 (g) before proceeding with the next construction activity associated with SWM facilities and practices. If, after performing computations, the ABE determines that the SWM facilities do not meet the functional parameters in the approved Final SWM Report as constructed, reconstruct the SWM facilities to meet the functional parameters. If this is not possible due to the site conditions or constraints and not due

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to negligence and inadequate quality of work, cease work on SWM facilities and notify the Engineer.

317.04 MEASUREMENT AND PAYMENT. Stormwater Management (SWM) Facility As-Built Certification will not be measured but will be paid for at the Contract lump sum price and incrementally distributed per the payment schedule. The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work. No additional compensation will be considered for addressing comments received on the submitted SWM facilities as-built certification package, revisions to the SWM facility as-built certification package, or any construction activities necessary to address comments that may have been received or necessary to revise the SWM facility as-built certification package.

No adjustment to the payment schedule will be made for partial submittals of the SWM facility as-built certification package.

317.04.01 Payment Schedule. Payments will be made for the SWM facility as-built certification package as follows.

PAYMENT SCHEDULE					
ACTIVITY	PERCENTAGE OF PAYMENT				
Initial submission of the entire SWM Facility As-Built Certification Package.	60				
Structural Acceptance from the Highway Hydraulics Division and the Approving Authority.	30				
Final Approval from the Highway Hydraulics Division and the Approving Authority.	10				
TOTAL	100				

317.04.02 Forfeiture of Payment. Failure to meet the requirements of the payment schedule will result in forfeiture of that percentage of payment.

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CONTRACT PROVISIONS ADDENDUM RECEIPT VERIFICATION FORM

CONTRACT NO. AX7665D82 1 of 1

ADDENDUM RECEIPT VERIFICATION FORM

COMAR 21.05.02.08 requires that all addenda issued be acknowledged, therefore before bids may be considered responsive, the Maryland State Highway Administration must receive verification that all bids considered the contents of all Contract Documents and all Addenda issued, as applicable, for this project.

I do solemnly declare and affirm under the penalties of perjury that this bid was prepared by this firm, including all subcontractors and suppliers, with consideration of all the information contained in the as advertised Contract Documents and all Addenda issued, as applicable.

NO ADDENDA WERE ISSUED

ADDENDUM NO. <u>1</u> to _____ (Must be filled in by the bidder – if only one Addendum enter 1 in the blank space provided)

Date:

By:

(print name of Authorized Representative)

(signature of Authorized Representative)

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CONTRACT PROVISIONS

PROPOSAL FORM PACKET — FEDERAL

CONTRACT NO. AX766D51 FAP NO. AC-STBG-000B(276)E 1 of 43

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION PROPOSAL FORM

Proposal b	oy					
-	-	Name				
	Address (Street and/or P.O. Box)					
	City		State	Zip		
()	_	()				
A.C. I	Phone No.	A.C.	Fax No.			

to furnish and deliver all materials and to do and perform all work, in conformance with the Standard Specifications, revisions thereto, General Provisions and the Special Provisions in this contract to <u>Areawide TMDL</u> located in, <u>Area Wide</u>, Maryland, for which Invitation for Bids will be received until 12:00 o'clock noon on <u>Tuesday</u>, <u>October 30</u>, 2018, this work being situated as follows:

Maryland Department of Transportation State Highway Administration Office of Procurement and Contract Management 707 N. Calvert Street Baltimore, Maryland 21202

In response to the advertisement by the Administration, inviting bids for the work in conformance with the Contract Documents, now on file in the office of the Administration. I/We hereby certify that I/we am/are the only person, or persons, interested in this bid proposal as principals, and that an examination has been made of the work site, the Specifications, the Plans, and Invitation for Bids, including the Special Provisions contained herein. I/We propose to furnish all necessary machinery, equipment, tools, labor and other means of construction, and to furnish all materials required to complete the project at the following unit price or lump sum price.

SCHEDULE OF PRICES

ITEM NO.	APPROXIMATE	DESCRIPTION OF ITEMS	SECTION	UNIT PRICE		AMOUNTS	
CCS NO.	QUANTITIES			DOLLARS	CENTS	DOLLARS	CENTS
		. RIGHT-OF-WAY ACQUISITION	XXX				
1001	LUMP SUM						
100000			LUMP SUM				
1002	LUMP SUM	. TMDL CREDIT DESIGN	XXX				
100000				LUMP SUM			
		. TMDL CREDIT CONSTRUCTION	XXX				
1003	LUMP SUM						
100000			LUMP SUM				
					- <u> </u>		

END OF CATEGORY NO. 1

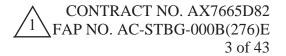
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MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONS PROPOSAL FORM PACKET — FEDERAL



GENERAL MATERIAL REQUIREMENTS

CONVICT PRODUCED MATERIALS

Section 1019 of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) clarifies that materials produced by convict labor after July 1, 1991 may not be used for Federal-aid highway construction projects unless produced at a prison facility producing convict made materials for Federal-aid construction projects prior to July 1, 1987.

CONTRACT PROVISION BUY AMERICA

This section only applies to projects partially or totally financed with Federal funds. The Contractor shall comply with Section 165 of the Surface Transportation Assistance Act of 1982 as amended by Section 1041(a) and 1048(a) of the Intermodal Surface Transportation Efficiency Act of 1991 (codified by SAFETEA-LU, §1903 as 23 U.S.C 313) with regard to the furnishing and coating of iron and steel products.

The Contract, if awarded, will be awarded to the responsive and responsible bidder who submits the lowest total bid for the Contract based on furnishing Domestic Products unless such bid exceeds the lowest total bid based on furnishing Foreign Products by more than twenty five percent (25%). Foreign Products will not be permitted to be used as a substitution for Domestic ones after the bid has been awarded.

Furnish steel or iron construction materials, including coating, for permanently incorporated work according to 23 CFR 635.410 and as follows:

- (a) All manufacturing processes of steel or iron materials in a product, including coating; and any subsequent process that alters the steel or iron material's physical form or shape, changes its chemical composition, or the final finish; are to occur within the United States (One of the 50 States, the District of Columbia, Puerto Rico, or in territories and possessions of the U.S.). Manufacturing begins with the initial melting and mixing, and continues through the coating stage. The processes include rolling, extruding, machining, bending, grinding, drilling, welding, and coating. The action of applying a coating to steel or iron is deemed a manufacturing process. Coating includes epoxy coating, galvanizing, aluminizing, painting, and any other coating that protects or enhances the value of steel or iron. Any process from the original reduction from ore to the finished product constitutes a manufacturing process for iron.
- (b) The following are considered to be steel manufacturing processes:

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CONTRACT PROVISIONS

PROPOSAL FORM PACKET — FEDERAL

CONTRACT NO. AX7665D82 FAP NO. AC-STBG-000B(276)E 4 of 43

- (1) Production of steel by any of the following processes:
 - (a) Open hearth furnace.
 - (b) Basic oxygen.
 - (c) Electric furnace.
 - (d) Direct reduction.
- (2) Rolling, heat treating, and any other similar processing.
- (3) Fabrication of the products:
 - (a) Spinning wire into cable or strand.
 - (b) Corrugating and rolling into culverts.
 - (c) Shop fabrication.
- (c) The manufacturing process for a steel/iron product is considered complete when the product is ready for use as an item (e.g., fencing, posts, girders, pipe, manhole cover, etc.) or could be incorporated as a component of a more complex product through a further manufacturing process (e.g., prestressed concrete girders, reinforced concrete pipe, traffic control devices, bearing pads, etc.). A product containing both steel and/or iron components, may be assembled outside the United States and meet Buy America requirements if the constituent steel and iron components (in excess of the minimal amounts permitted) were manufactured domestically and are not modified at the assembly location prior to final assembly.
- (d) If domestically produced steel billets or iron ingots are exported outside of the U.S., as defined above, for any manufacturing process then the resulting product does not conform to the Buy America requirements. Additionally, products manufactured domestically from foreign source steel billets or iron ingots do not conform to the Buy America requirements because the initial melting and mixing of alloys to create the material occurred in a foreign country.
- (e) Due to a nationwide waiver, Buy America does not apply to raw materials (iron ore and alloys), scrap (recycled steel or iron), and pig iron or processed, pelletized, and reduced iron ore.
- (f) For the Buy America provisions to apply, the steel or iron product must be permanently incorporated into the project. If an item is rendered as a "donated material" in accordance with 23 U.S.C. 323 Donations and Credits, it will have to comply with Buy America requirements. While States and local governments may receive a credit for donated material, this material must generally comply with Buy America requirements. Buy America does not apply to temporary steel items, e.g., temporary sheet piling, temporary bridges, steel scaffolding and falsework. Further, Buy America does not apply to materials which remain in place at the contractor convenience.

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- (g) Certifications which document that steel and iron have been manufactured and that coatings for iron or steel have been applied in the United States shall be provided to the Contractor by the manufacturer. The Contractor shall provide the required certifications to the Engineer prior to such items being incorporated into the permanent work. Certifications shall extend to materials utilized in manufactured and fabricated products purchased by the Contractor.
- (h) Products manufactured of foreign steel or iron materials may be used, provided the cost of such products as they are delivered to the project does not exceed 0.1% of the total contract amount, or \$2,500, whichever is greater. If a supplier or fabricator wishes to use a partial fabrication process where domestic and foreign source components are assembled at a domestic location, the "as delivered cost" of the foreign components should include any transportation, assembly and testing costs required to install them in the final product.



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NOTICE

All bidders shall complete and submit with their bid the Bid/Proposal Affidavit below.

BID/PROPOSAL AFFIDAVIT

A. AUTHORIZED REPRESENTATIVE AND AFFIANT

I HEREBY AFFIRM THAT:

I, _____ (print name), possess the legal authority to make this Affidavit.

B. CERTIFICATION REGARDING COMMERCIAL NONDISCRIMINATION

The undersigned bidder hereby certifies and agrees that the following information is correct: In preparing its bid on this project, the bidder has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not engaged in "discrimination" as defined in §19-103 of the State Finance and Procurement Article of the Annotated Code of Maryland. "Discrimination" means any disadvantage, difference, distinction, or preference in the solicitation, selection, hiring, or commercial treatment of a vendor, subcontractor, or commercial customer on the basis of race, color, religion, ancestry, or national origin, sex, age, marital status, sexual orientation, sexual identity, genetic information or an individual's refusal to submit to a genetic test or make available the results of a genetic test, disability, or any otherwise unlawful use of characteristics regarding the vendor's, supplier's, or commercial customer's employees or owners. "Discrimination" also includes retaliating against any person or other entity for reporting any incident of "discrimination". Without limiting any other provision of the solicitation on this project, it is understood that, if the certification is false, such false certification constitutes grounds for the State to reject the bid submitted by the bidder on this project, and terminate any contract awarded based on the bid. As part of its bid or proposal, the bidder herewith submits a list of all instances within the past 4 years where there has been a final adjudicated determination in a legal or administrative proceeding in the State of Maryland that the bidder discriminated against subcontractors, vendors, suppliers, or commercial customers, and a description of the status or resolution of that determination, including any remedial action taken. Bidder agrees to comply in all respects with the State's Commercial Nondiscrimination Policy as described under Title 19 of the State Finance and Procurement Article of the Annotated Code of Maryland.



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C. AFFIRMATION REGARDING BRIBERY CONVICTIONS

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business (as is defined in Section 16-101(b) of the State Finance and Procurement Article of the Annotated Code of Maryland), or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business's contracting activities, including obtaining or performing contracts with public bodies, has been convicted of, or has had probation before judgment imposed pursuant to Criminal Procedure Article, §6-220, Annotated Code of Maryland, or has pleaded nolo contendere to a charge of, bribery, attempted bribery, or conspiracy to bribe in violation of Maryland law, or of the law of any other state or federal law, except as follows (indicate the reasons why the affirmation cannot be given and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of person(s) involved, and their current positions and responsibilities with the business):

D. AFFIRMATION REGARDING OTHER CONVICTIONS

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business, or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business's contracting activities including obtaining or performing contracts with public bodies, has:

(1) Been convicted under state or federal statute of:

(a) a criminal offense incident to obtaining, attempting to obtain, or performing a public or private contract; or

(b) fraud, embezzlement, theft, forgery, falsification or destruction of records, or receiving stolen property;

(2) Been convicted of any criminal violation of a state or federal antitrust statute;

(3) Been convicted under the provisions of Title 18 of the United States Code for violation of the Racketeer Influenced and Corrupt Organization Act, 18 U.S.C. §1961, et seq., or the Mail Fraud Act, 18 U.S.C. §1341, et seq., for acts in connection with the submission of bids or proposals for a public or private contract;

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(4) Been convicted of a violation of the State Minority Business Enterprise Law, Section 14-308 of the State Finance and Procurement Article of the Annotated Code of Maryland;

(5) Been convicted of a violation of the Section 11-205.1 of the State Finance and Procurement Article of the Annotated Code of Maryland;

(6) Been convicted of conspiracy to commit any act or omission that would constitute grounds for conviction or liability under any law or statute described in subsection (1) through (5) above;

(7) Been found civilly liable under a state or federal antitrust statute for acts or omissions in connection with the submission of bids or proposals for a public or private contract;

(8) Been found in a final adjudicated decision to have violated the Commercial Nondiscrimination Policy under Title 19 of the State Finance and Procurement Article of the Annotated Code of Maryland with regard to a public or private contract; or

(9) Been convicted of a violation of one or more of the following provisions of the Internal Revenue Code:

- (a) §7201, Attempt to Evade or Defeat Tax;
- (b) §7203, Willful Failure to File Return, Supply Information, or Pay Tax,
- (c) §7205, Fraudulent Withholding Exemption Certificate or Failure to Supply Information,
- (d) §7206, Fraud and False Statements, or
- (e) §7207 Fraudulent Returns, Statements, or Other Documents;

(10) Been convicted of a violation of 18 U.S.C. §286 Conspiracy to Defraud the Government with Respect to Claims, 18 U.S.C. §287, False, Fictitious, or Fraudulent Claims, or 18 U.S.C. §371, Conspiracy to Defraud the United States;

(11) Been convicted of a violation of the Tax-General Article, Title 13, Subtitle 7 or Subtitle 10, Annotated Code of Maryland;

(12) Been found to have willfully or knowingly violated State Prevailing Wage Laws as provided in the State Finance and Procurement Article, Title 17, Subtitle 2, Annotated Code of Maryland, if:

- (a) A court:
 - (i) Made the finding; and
 - (ii) Decision became final; or
- (b) The finding was:
 - (i) Made in a contested case under the Maryland Administrative Procedure Act; and
 - (ii) Not overturned on judicial review;

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(13) Been found to have willfully or knowingly violated State Living Wage Laws as provided in the State Finance and Procurement Article, Title 18, Annotated Code of Maryland, if:

- (a) A court:
 - (i) Made the finding; and
 - (ii) Decision became final; or
- (b) The finding was:
 - (i) Made in a contested case under the Maryland Administrative Procedure Act; and
 - (ii) Not overturned on judicial review;

(14) Been found to have willfully or knowingly violated the Labor and Employment Article, Title 3, Subtitles 3, 4, or 5, or Title 5, Annotated Code of Maryland, if:

- (a) A court:
 - (i) Made the finding; and
 - (ii) Decision became final; or
- (b) The finding was:
 - (i) Made in a contested case under the Maryland Administrative Procedure Act; and
 - (ii) Not overturned on judicial review; or

(15) Admitted in writing or under oath, during the course of an official investigation or other proceedings, acts or omissions that would constitute grounds for conviction or liability under any law or statute described in §§B and C and subsections D(1) - (14) above, except as follows (indicate reasons why the affirmations cannot be given, and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of the person(s) involved and their current positions and responsibilities with the business, and the status of any debarment):

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E. AFFIRMATION REGARDING DEBARMENT

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business, or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business's contracting activities, including obtaining or performing contracts with public bodies, has ever been suspended or debarred (including being issued a limited denial of participation) by any public entity, except as follows (list each debarment or suspension providing the dates of the suspension or debarment, the name of the public entity and the status of the proceedings, the name(s) of the person(s) involved and their current positions and responsibilities with the business, the grounds of the debarment or suspension, and the details of each person's involvement in any activity that formed the grounds of the debarment or suspension):

F. AFFIRMATION REGARDING DEBARMENT OF RELATED ENTITIES

I FURTHER AFFIRM THAT:

- (1) The business was not established and it does not operate in a manner designed to evade the application of or defeat the purpose of debarment pursuant to Sections 16-101, et seq., of the State Finance and Procurement Article of the Annotated Code of Maryland; and
- (2) The business is not a successor, assignee, subsidiary, or affiliate of a suspended or debarred business, except as follows (you must indicate the reasons why the affirmations cannot be given without qualification):



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G. SUB-CONTRACT AFFIRMATION

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business, has knowingly entered into a contract with a public body under which a person debarred or suspended under Title 16 of the State Finance and Procurement Article of the Annotated Code of Maryland will provide, directly or indirectly, supplies, services, architectural services, construction related services, leases of real property, or construction.

H. AFFIRMATION REGARDING COLLUSION

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the above business has:

- (1) Agreed, conspired, connived, or colluded to produce a deceptive show of competition in the compilation of the accompanying bid or offer that is being submitted;
- (2) In any manner, directly or indirectly, entered into any agreement of any kind to fix the bid price or price proposal of the bidder or offeror or of any competitor, or otherwise taken any action in restraint of free competitive bidding in connection with the contract for which the accompanying bid or offer is submitted.

I. CERTIFICATION OF TAX PAYMENT

I FURTHER AFFIRM THAT:

Except as validly contested, the business has paid, or has arranged for payment of, all taxes due the State of Maryland and has filed all required returns and reports with the Comptroller of the Treasury, the State Department of Assessments and Taxation, and the Department of Labor, Licensing, and Regulation, as applicable, and will have paid all withholding taxes due the State of Maryland prior to final settlement.

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J. CONTINGENT FEES

I FURTHER AFFIRM THAT:

The business has not employed or retained any person, partnership, corporation, or other entity, other than a bona fide employee, bona fide agent, bona fide salesperson, or commercial selling agency working for the business, to solicit or secure the Contract, and that the business has not paid or agreed to pay any person, partnership, corporation, or other entity, other than a bona fide employee, bona fide agent, bona fide salesperson, or commercial selling agency, any fee or any other consideration contingent on the making of the Contract.

K. CERTIFICATION REGARDING INVESTMENTS IN IRAN

- (1) The undersigned certifies that, in accordance with State Finance and Procurement Article, §17-705, Annotated Code of Maryland:
 - (a) It is not identified on the list created by the Board of Public Works as a person engaging in investment activities in Iran as described in State Finance and Procurement Article, §17-702, Annotated Code of Maryland; and
 - (b) It is not engaging in investment activities in Iran as described in State Finance and Procurement Article, §17-702, Annotated Code of Maryland.
- (2) The undersigned is unable to make the above certification regarding its investment activities in Iran due to the following activities: _____

L. CONFLICT MINERALS ORIGINATED IN THE DEMOCRATIC REPUBLIC OF CONGO (FOR SUPPLIES AND SERVICES CONTRACTS)

I FURTHER AFFIRM THAT:

The business has complied with the provisions of State Finance and Procurement Article, §14-413, Annotated Code of Maryland governing proper disclosure of certain information regarding conflict minerals originating in the Democratic Republic of Congo or its neighboring countries as required by federal law.

M. I FURTHER AFFIRM THAT:

Any claims of environmental attributes made relating to a product or service included in the bid or proposal are consistent with the Federal Trade Commission's Guides for the Use of Environmental Marketing Claims as provided in 16 CFR §260, that apply to claims about the environmental attributes of a product, package, or service in connection with the marketing, offering for sale, or sale of such item or service.



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N. ACKNOWLEDGEMENT

I ACKNOWLEDGE THAT this Affidavit is to be furnished to the Procurement Officer and may be distributed to units of: (1) the State of Maryland; (2) counties or other subdivisions of the State of Maryland; (3) other states; and (4) the federal government. I further acknowledge that this Affidavit is subject to applicable laws of the United States and the State of Maryland, both criminal and civil, and that nothing in this Affidavit or any contract resulting from the submission of this bid or proposal shall be construed to supersede, amend, modify or waive, on behalf of the State of Maryland, or any unit of the State of Maryland having jurisdiction, the exercise of any statutory right or remedy conferred by the Constitution and the laws of Maryland with respect to any misrepresentation made or any violation of the obligations, terms and covenants undertaken by the above business with respect to (1) this Affidavit, (2) the contract, and (3) other Affidavits comprising part of the contract.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

Date: _____

By: ______ (print name of Authorized Representative and Affiant)

_____ (signature of Authorized Representative and Affiant)

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COMPREHENSIVE SIGNATURE PAGE 1 OF 2

THE BIDDER IS HEREBY NOTIFIED THAT THIS DOCUMENT <u>SHALL BE SIGNED</u> IN INK IN ORDER FOR THE BID TO BE ACCEPTED. BY SIGNING, THE BIDDER CERTIFIES THAT HE/SHE WILL COMPLY IN EVERY ASPECT WITH THESE SPECIFICATIONS.

FURTHER, I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT (PARAGRAPHS A-N) ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

This bid form shall be filled out legibly in ink or typed. The bid, if submitted by an individual, shall be signed by an individual; if submitted by a partnership, shall be signed by such member or members of the partnership as have authority to bind the partnership; if submitted by a corporation the same shall be signed by the President and attested by the Secretary or an Assistant Secretary. If not signed by the President as aforesaid, there must be attached a copy of that portion of the By-Laws, or a copy of a Board resolution, duly certified by the Secretary, showing the authority of the person so signing on behalf of the corporation. In lieu thereof, the corporation may file such evidence with the Administration, duly certified by the Secretary, together with a list of the names of those officers having authority to execute documents on behalf of the corporation, duly certified by the Secretary, which listing shall remain in full force and effect until such time as the Administration is advised in writing to the contrary. In any case where a bid is signed by an Attorney in Fact the same must be accompanied by a copy of the appointing document, duly certified.

IF AN INDIVIDUAL:

NAME:

	Stree	t and/or P.O. Box		
	City	State	Zip Code	Fed ID or SSN
			(SEAL)	
	Signature		()	Date
	Print Signature			
WITNESS:				
		Signature		
		Print Signature		

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COMPREHENSIVE SIGNATURE PAGE 2 OF 2

IF A PARTNERSHIP:

NAME OF PARTNERSHIP:

	Street and	/or P.O. Box		
	City	State	Zip Code	Fed ID or SSN
BY:			(SEAL)	
	Signature Date		、 /	
	Print Signature			
TITLE:		WITNESS:		
			Signature	
			Print Sigr	ature
IF A CORP	ORATION:			
NAME (OF CORPORATION:			
	Street and	/or P.O. Box		
	City	State	Zip Code	Fed ID or SSN
STATE (OF INCORPORATION	N:		
BY:			(SEAL)	
	Signature		、	Date
	Print Signature			
TITLE:		WITNESS:		
			Secretary	's Signature
			Print Sigr	ature



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MDOT DBE FORM A FEDERALLY-FUNDED CONTRACTS CERTIFIED DBE UTILIZATION AND FAIR SOLICITATION AFFIDAVIT PAGE 1 OF 2

This affidavit must be included with the bid/ proposal. If the bidder/offeror fails to accurately complete and submit this affidavit as required, the bid shall be deemed not responsive or the proposal shall be deemed not susceptible of being selected for award.

In connection with the bid/proposal submitted in response to Solicitation No. AX7665D82, I affirm the following:

1. DBE Participation (PLEASE CHECK ONLY ONE)

I have met the overall certified Disadvantaged Business Enterprise (DBE) participation goal of percent (20 %). I agree that this percentage of the total dollar amount of the Contract for the DBE goal will be performed by certified DBE firms as set forth in the DBE Participation Schedule - Part 2 of the MDOT DBE Form B (Federally-Funded Contracts).

<u>OR</u>

I conclude that I am unable to achieve the DBE participation goal. I hereby request a waiver, in whole or in part, of the goal. Within 10 business days of receiving notice that our firm is the apparent awardee or as requested by the Procurement Officer, I will submit a written waiver request and all required documentation in accordance with COMAR 21.11.03.11. For a partial waiver request, I agree that certified DBE firms will be used to accomplish the percentages of the total dollar amount of the Contract as set forth in the DBE Participation Schedule - Part 2 of the MDOT DBE Form B (Federally-Funded Contracts).

2. Additional DBE Documentation

I understand that if I am notified that I am the apparent awardee or as requested by the Procurement Officer, I must submit the following documentation within 10 business days of receiving such notice: (a) Outreach Efforts Compliance Statement (MDOT DBE Form C - Federally-Funded Contracts); (b) Subcontractor Project Participation Statement (MDOT DBE Form D - Federally-Funded Contracts); (c) DBE Waiver Request documentation per COMAR 21.11.03.11 (if waiver was requested); and (d) Any other documentation required by the Procurement Officer to ascertain bidder's responsibility/ offeror's susceptibility of being selected for award in connection with the certified DBE participation goal.



CONTRACT PROVISIONS PROPOSAL FORM PACKET — FEDERAL CONTRACT NO. AX7665D82 FAP NO. AC-STBG-000B(276)E 17 of 43

MDOT DBE FORM A FEDERALLY-FUNDED CONTRACTS CERTIFIED DBE UTILIZATION AND FAIR SOLICITATION AFFIDAVIT PAGE 2 OF 2

I acknowledge that if I fail to return each completed document (in 2 (a) through (d)) within the required time, the Procurement Officer may determine that I am not responsible and therefore not eligible for contract award or not susceptible of being selected for award.

3. Information Provided to DBE firms

In the solicitation of subcontract quotations or offers, DBE firms were provided not less than the same information and amount of time to respond as were non-DBE firms.

4. Products and Services Provided by DBE firms

I hereby affirm that the DBEs are only providing those products and services for which they are MDOT certified.

I solemnly affirm under the penalties of perjury that the information in this affidavit is true to the best of my knowledge, information and belief.

Company Name

Signature of Representative

Address

Printed Name and Title

City, State and Zip Code

Date

STATE HIGHWAY ADMINISTRATION

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MDOT DBE FORM B FEDERALLY-FUNDED CONTRACTS DBE PARTICIPATION SCHEDULE

PART 1 – INSTRUCTIONS FOR DBE PARTICIPATION SCHEDULE

PARTS 2 AND 3 MUST BE INCLUDED WITH THE BID/PROPOSAL. IF THE BIDDER/OFFEROR FAILS TO ACCURATELY COMPLETE AND SUBMIT PART 2 WITH THE BID/PROPOSAL AS REQUIRED, THE BID SHALL BE DEEMED NOT RESPONSIVE OR THE PROPOSAL SHALL BE DEEMED NOT SUSCEPTIBLE OF BEING SELECTED FOR AWARD.

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*** STOP *** FORM INSTRUCTIONS PLEASE READ BEFORE COMPLETING THIS FORM

- 1. Please refer to the Maryland Department of Transportation (MDOT) DBE Directory at <u>www.mdot.state.md.us</u> to determine if a firm is certified for the appropriate North American Industry Classification System ("NAICS") Code <u>and</u> the product/services description (specific product that a firm is certified to provide or specific areas of work that a firm is certified to perform). For more general information about NAICS, please visit <u>www.naics.com</u>. Only those specific products and/or services for which a firm is certified in the MDOT Directory can be used for purposes of achieving the DBE participation goal.
- 2. In order to be counted for purposes of achieving the DBE participation goal, the firm `must be certified for that specific NAICS ("DBE" for Federally-funded projects designation after NAICS Code). WARNING: If the firm's NAICS Code is in <u>graduated status</u>, such services/products <u>will</u> <u>not be counted</u> for purposes of achieving the DBE participation goals. Graduated status is clearly identified in the MDOT Directory (such graduated codes are designated with the word graduated after the appropriate NAICS Code).
- 3. Examining the NAICS Code is the **first step** in determining whether a DBE firm is certified and eligible to receive DBE participation credit for the specific products/services to be supplied or performed under the contract. The **second step** is to determine whether a firm's Products/Services Description in the DBE Directory includes the products to be supplied and/or services to be performed that are being used to achieve the DBE participation goal.
- 4. If you have any questions as to whether a firm is MDOT DBE certified, or if it is certified to perform specific services or provide specific products, please call MDOT's Office of Minority Business Enterprise at 1-800-544-6056 or send an email to mbe@mdot.state.md.us.

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MDOT DBE FORM B FEDERALLY-FUNDED CONTRACTS DBE PARTICIPATION SCHEDULE PART 1 – INSTRUCTIONS FOR DBE PARTICIPATION SCHEDULE PAGE 2 OF 4

- 5. The Contractor's subcontractors are considered second-tier subcontractors. Third-tier contracting used to meet a DBE goal is to be considered the exception and not the rule. The following two conditions must be met before MDOT, its Modal Administrations and the Maryland Transportation Authority may approve a third-tier contracting agreement: (a) the bidder/offeror must request in writing approval of each third-tier contract arrangement, and (b) the request must contain specifics as to why a third-tier contracting arrangement should be approved. These documents must be submitted with the bid/proposal in Part 2 of this DBE Participation Schedule.
- 6. For each DBE firm that is being used as supplier/wholesaler/regular dealer/broker/manufacturer, please follow these instructions for calculating the <u>amount of the subcontract for purposes of achieving the DBE participation goal:</u>
 - A. Is the firm certified as a broker of the products/supplies? If the answer is YES, please continue to Item C. If the answer is NO, please continue to Item B.
 - B. Is the firm certified as a supplier, wholesaler, regular dealer, or manufacturer of such products/supplies? If the answer is YES, continue to Item D. If the answer is NO, continue to Item C <u>only</u> if the DBE firm is certified to perform trucking/hauling services under NAICS Codes 484110, 484121, 484122, 484210, 484220 and 484230. If the answer is NO and the firm is not certified under these NAICS Codes, then <u>no</u> DBE participation credit will be given for the supply of these products.
 - C. For purposes of achieving the DBE participation goal, you may count <u>only</u> the amount of any reasonable fee that the DBE firm will receive for the provision of such products/supplies <u>not</u> the total subcontract amount or the value (or a percentage thereof) of such products and/or supplies. For Column 3 of the DBE Participation Schedule, please divide the amount of any reasonable fee that the DBE firm will receive for the provision of such products/services by the total Contract value and insert the percentage in Line 3.1.
 - D. Is the firm certified as a manufacturer (refer to the firm's NAICS Code and specific descrition of products/services) of the products/supplies to be provided? If the answer is NO please continue to Item E If the answer is YES, for purposes of achieving the DBE participation goal, you may count the total amount of the subcontract. For Column 3 of the DBE Participation Schedule, please divide the total amount of the subcontract by the total Contract value and insert the percentage in Line 3.1.

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MDOT DBE FORM B FEDERALLY-FUNDED CONTRACTS DBE PARTICIPATION SCHEDULE PART 1 – INSTRUCTIONS FOR DBE PARTICIPATION SCHEDULE PAGE 3 OF 4

- E. Is the firm certified as a supplier, wholesaler and/or regular dealer? If the answer is YES and the DBE firm is furnishing and installing the materials <u>and</u> is certified to perform these services, please divide the total subcontract amount (including full value of supplies) by the total Contract value and insert the percentage in Line 3.1. If the answer is YES and the DBE firm is only being used as a supplier, wholesaler and/or regular dealer or is not certified to install the supplies/materials, for purposes of achieving the DBE participation goal, you may only count sixty percent (60%) of the value of the subcontract for these supplies/products (60% Rule). To apply the 60% Rule, first divide the amount of the subcontract for these supplies/products only (not installation) by the total Contract value. Then, multiply the result by sixty percent (60%) and insert the percentage in Line 3.2.
- 7. For each DBE firm that <u>is not</u> being used as a supplier/wholesaler/regular dealer/broker/manufacturer, to calculate the <u>amount of the subcontract for purposes of</u> <u>achieving the DBE participation goal</u>, divide the total amount of the subcontract by the total Contract value and insert the percentage in Line 3.1.

Example: \$2,500 (Total Subcontract Amount) \div \$10,000 (Total Contract Value) x 100 = 25%.

- 8. Please note that for USDOT-funded projects, a DBE prime may count towards its DBE participation goal work performed by its own forces. Include information about the DBE prime in Part 2.
- 9. WARNING: The percentage of DBE participation, computed using the dollar amounts in Column 3 for all of the DBE firms listed in Part 2, MUST at least equal the DBE participation goal as set forth in MDOT DBE Form A Federally-Funded Contracts for this solicitation. If the bidder/offeror is unable to achieve the DBE participation goals, then the bidder/offeror must request a waiver in Form A or the bid will be deemed not responsive, or the proposal not susceptible of being selected for award. You may wish to use the Goal Worksheet shown below to assist you in calculating the percentage and confirming that you have met the applicable DBE participation goal.

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GOAL WORKSHEET				
Total DBE Firm Participation (Add percentages in Column 3 for all DBE firms listed in DBE Participation Schedule)	(A)%			
The percentage amount in Box A above should be equal to the percentage amount in Box E below.				
Add <i>Countable</i> Subcontract Amounts (see 6 through 8 of Instructions) for all DBE firms listed in DBE Participation Schedule, and insert in Box B	(B) \$			
Insert the Total Contract Amount in Box C	(C) \$			
Divide Box B by Box C and Insert in Box D	(D) =			
Multiply Box D by 100 and insert in Box E	(E) =%			

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MDOT DBE FORM B FEDERALLY-FUNDED CONTRACTS DBE PARTICIPATION SCHEDULE PART 2 – DBE PARTICIPATION SCHEDULE

PARTS 2 AND 3 MUST BE INCLUDED WITH THE BID/PROPOSAL. IF THE BIDDER/OFFEROR FAILS TO ACCURATELY COMPLETE AND SUBMIT PART 2 WITH THE BID/PROPOSAL AS REQUIRED, THE BID SHALL BE DEEMED NOT RESPONSIVE OR THE PROPOSAL SHALL BE DEEMED NOT SUSCEPTIBLE OF BEING SELECTED FOR AWARD.

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Prime Contractor	Project Description	Solicitation Number

LIST INFORMATION FOR EACH CERTIFIED DBE SUBCONTRACTOR YOU AGREE TO USE TO ACHIEVE THE DBE PARTICIPATION GOAL.

COLUMN 1	COLUMN 2	COLUMN 3 Unless the bidder/offeror requested a waiver in MDOT DBE Form A – Federally Funded Contracts for this solicitation, the cumulative DBE participation for all DBE firms listed herein must equal at least the DBE participation goal set forth in Form A.
NAME OF DBE SUBCONTRACTOR AND TIER	CERTIFICATION NO.	FOR PURPOSES OF ACHIEVING THE DBE PARTICIPATION GOAL, refer to sections 6, 7 and 8 in Part 1 - Instructions. State the percentage amount of the products/services in Line 3.1, except for those products or services where the DBE firm is being used as a wholesaler, supplier, or regular dealer. For items of work where the DBE firm is being used as a supplier, wholesaler and/or regular dealer, complete Line 3.2 using the 60% Rule.
	Certification Number:	3.1. <u>TOTAL PERCENTAGE TO BE PAID TO THE</u> <u>SUBCONTRACTOR (STATE THIS PERCENTAGE AS A PERCENTAGE</u> <u>OF THE TOTAL CONTRACT VALUE- EXCLUDING</u> <u>PRODUCTS/SERVICES FROM SUPPLIERS, WHOLESALERS OR</u> <u>REGULAR DEALERS).</u>
Please check if DBE firm is a third-tier contractor (if applicable). Please submit written documents in accordance with Section 5 of Part 1 - Instructions		 % (Percentage for purposes of calculating achievement of DBE Participation goal) 3.2 TOTAL PERCENTAGE TO BE PAID TO THE SUBCONTRACTOR FOR ITEMS OF WORK WHERE THE DBE FIRM IS BEING USED AS A SUPPLIER, WHOLESALER AND/OR REGULAR DEALER) (STATE THE PERCENTAGE AS A PERCENTAGE OF THE TOTAL CONTRACT VALUE AND THEN APPLY THE 60% RULE PER SECTION 6(E) IN PART 1 - INSTRUCTIONS).
		 % Total percentage of Supplies/Products <u>x 60%</u> (60% Rule) % (Percentage for purposes of calculating achievement of DBE Participation goal)

Please check if Continuation Sheets are attached.

Maryland department of transportation_

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MDOT DBE FORM B FEDERALLY-FUNDED CONTRACTS DBE PARTICIPATION SCHEDULE CONTINUATION SHEET

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Prime Contractor	Project Description	Solicitation Number

LIST INFORMATION FOR EACH CERTIFIED DBE SUBCONTRACTOR YOU AGREE TO USE TO ACHIEVE THE DBE PARTICIPATION GOAL.

COLUMN 1	COLUMN 2	COLUMN 3 Unless the bidder/offeror requested a waiver in MDOT DBE Form A – Federally Funded Contracts for this solicitation, the cumulative DBE participation for all DBE firms listed herein must equal at least the DBE participation goal set forth in Form A.
NAME OF DBE SUBCONTRACTOR AND TIER	CERTIFICATION NO.	FOR PURPOSES OF ACHIEVING THE DBE PARTICIPATION GOAL, refer to sections 6, 7 and 8 in Part 1 - Instructions. State the percentage amount of the products/services in Line 3.1, except for those products or services where the DBE firm is being used as a wholesaler, supplier, or regular dealer. For items of work where the DBE firm is being used as a supplier, wholesaler and/or regular dealer, complete Line 3.2 using the 60% Rule.
Please check if DBE firm is a third-tier contractor (if applicable). Please submit written documents in accordance with Section 5 of Part 1 - Instructions	Certification Number:	 3.1. TOTAL PERCENTAGE TO BE PAID TO THE SUBCONTRACTOR (STATE THIS PERCENTAGE AS A PERCENTAGE OF THE TOTAL CONTRACT VALUE- EXCLUDING PRODUCTS/SERVICES FROM SUPPLIERS, WHOLESALERS OR REGULAR DEALERS). (Percentage for purposes of calculating achievement of DBE Participation goal) 3.2 TOTAL PERCENTAGE TO BE PAID TO THE SUBCONTRACTOR FOR ITEMS OF WORK WHERE THE DBE FIRM IS BEING USED AS A SUPPLIER, WHOLESALER AND/OR REGULAR DEALER) (STATE THE PERCENTAGE AS A PERCENTAGE OF THE TOTAL CONTRACT VALUE AND THEN APPLY THE 60% RULE PER SECTION 6(E) IN PART 1 - INSTRUCTIONS). % Total percentage of Supplies/Products x% (Percentage for purposes of calculating achievement of DBE Participation goal)

Please check if Continuation Sheets are attached.

Signature of Representative

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Printed Name and Title

City, State and Zip Code

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MDOT DBE FORM B FEDERALLY-FUNDED CONTRACTS DBE PARTICIPATION SCHEDULE

PART 3 – CERTIFICATION FOR DBE PARTICIPATION SCHEDULE

PARTS 2 AND 3 MUST BE INCLUDED WITH THE BID/PROPOSAL AS DIRECTED IN THE SOLICITATION.

I hereby affirm that I have reviewed the Products and Services Description (specific product that a firm is certified to provide or areas of work that a firm is certified to perform) set forth in the MDOT DBE Directory for each of the DBE firms listed in Part 2 of this DBE Form B for purposes of achieving the DBE participation goal that was identified in the DBE Form A that I submitted with this solicitation, and that the DBE firms listed are only performing those products/services/areas of work for which they are certified. I also hereby affirm that I have read and understand the form instructions set forth in Part 1 of this DBE Form Β.

The undersigned Prime Contractor hereby certifies and agrees that it has fully complied with the State Minority Business Enterprise law, State Finance and Procurement Article §14-308(a)(2), Annotated Code of Maryland which provides that, except as otherwise provided by law, a contractor may not identify a certified minority business enterprise in a bid or proposal and:

fail to request, receive, or otherwise obtain authorization from the certified minority (1)business enterprise to identify the certified minority business enterprise in its bid or proposal;

fail to notify the certified minority business enterprise before execution of the contract of (2)its inclusion of the bid or proposal;

fail to use the certified minority business enterprise in the performance of the contract; or (3)

(4)pay the certified minority business enterprise solely for the use of its name in the bid or proposal.

I solemnly affirm under the penalties of perjury that the contents of Parts 2 and 3 of MDOT DBE Form B are true to the best of my knowledge, information and belief.

Address

Company Name

Date

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MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

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MDOT MBE/DBE FORM E GOOD FAITH EFFORTS GUIDANCE AND DOCUMENTATION

PART 1 – GUIDANCE FOR DEMONSTRATING GOOD FAITH EFFORTS TO MEET MBE/DBE PARTICIPATION GOALS

In order to show that it has made good faith efforts to meet the Minority Business Enterprise (MBE)/Disadvantaged Business Enterprise (DBE) participation goal (including any MBE subgoals) on a contract, the bidder/offeror must either (1) meet the MBE/DBE Goal(s) and document its commitments for participation of MBE/DBE Firms, or (2) when it does not meet the MBE/DBE Goal(s), document its Good Faith Efforts to meet the goal(s).

I. Definitions

MBE/DBE Goal(s) – "MBE/DBE Goal(s)" refers to the MBE participation goal and MBE participation subgoal(s) on a State-funded procurement and the DBE participation goal on a federally-funded procurement.

Good Faith Efforts – The "Good Faith Efforts" requirement means that when requesting a waiver, the bidder/offeror must demonstrate that it took all necessary and reasonable steps to achieve the MBE/DBE Goal(s), which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient MBE/DBE participation, even if those steps were not fully successful. Whether a bidder/offeror that requests a waiver made adequate good faith efforts will be determined by considering the quality, quantity, and intensity of the different kinds of efforts that the bidder/offeror has made. The efforts employed by the bidder/offeror should be those that one could reasonably expect a bidder/offeror to take if the bidder/offeror were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere *pro forma* efforts are not good faith efforts to meet the DBE contract requirements. The determination concerning the sufficiency of the bidder's/offeror's good faith efforts is a judgment call; meeting quantitative formulas is not required.

Identified Firms – "Identified Firms" means a list of the DBEs identified by the procuring agency during the goal setting process and listed in the federally-funded procurement as available to perform the Identified Items of Work. It also may include additional DBEs identified by the bidder/offeror as available to perform the Identified Items of Work, such as DBEs certified or granted an expansion of services after the procurement was issued. If the procurement does not include a list of Identified Firms or is a State-funded procurement, this term refers to all of the MBE Firms (if State-funded) or DBE Firms (if federally-funded) the bidder/offeror identified as available to perform the Identified Items of Work and should include all appropriately certified firms that are reasonably identifiable.

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Identified Items of Work – "Identified Items of Work" means the bid items identified by the procuring agency during the goal setting process and listed in the procurement as possible items of work for performance by MBE/DBE Firms. It also may include additional portions of items of work the bidder/offeror identified for performance by MBE/DBE Firms to increase the likelihood that the MBE/DBE Goal(s) will be achieved. If the procurement does not include a list of Identified Items of Work, this term refers to all of the items of work the bidder/offeror identified as possible items of work for performance by MBE/DBE Firms and should include all reasonably identifiable work opportunities.

MBE/DBE Firms – For State-funded contracts, "MBE/DBE Firms" refers to certified **MBE** Firms. Certified MBE Firms can participate in the State's MBE Program. For federally-funded contracts, "MBE/DBE Firms" refers to certified **DBE** Firms. Certified DBE Firms can participate in the federal DBE Program.

II. Types of Actions MDOT will Consider

The bidder/offeror is responsible for making relevant portions of the work available to MBE/DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available MBE/DBE subcontractors and suppliers, so as to facilitate MBE/DBE participation. The following is a list of types of actions MDOT will consider as part of the bidder's/offeror's Good Faith Efforts when the bidder/offeror fails to meet the MBE/DBE Goal(s). This list is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. Identify Bid Items as Work for MBE/DBE Firms

1. Identified Items of Work in Procurements

(a) Certain procurements will include a list of bid items identified during the goal setting process as possible work for performance by MBE/DBE Firms. If the procurement provides a list of Identified Items of Work, the bidder/offeror shall make all reasonable efforts to solicit quotes from MBE Firms or DBE Firms, whichever is appropriate, to perform that work.

(b) Bidders/Offerors may, and are encouraged to, select additional items of work to be performed by MBE/DBE Firms to increase the likelihood that the MBEDBE Goal(s) will be achieved.

2. Identified Items of Work by Bidders/Offerors

(a) When the procurement does not include a list of Identified Items of Work, bidders/offerors should reasonably identify sufficient items of work to be performed by MBE/DBE Firms.

(b) Where appropriate, bidders/offerors should break out contract work items into economically feasible units to facilitate MBE/DBE participation, rather than perform these work items with their own forces. The ability or desire of a prime contractor to perform the work of a

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contract with its own organization does not relieve the bidder/offeror of the responsibility to make Good Faith Efforts.

B. Identify MBE Firms or DBE Firms to Solicit

1. DBE Firms Identified in Procurements

(a) Certain procurements will include a list of the DBE Firms identified during the goal setting process as available to perform the items of work. If the procurement provides

a list of Identified DBE Firms, the bidder/offeror shall make all reasonable efforts to solicit those DBE firms.

(b) Bidders/offerors may, and are encouraged to, search the MBE/DBE Directory to identify additional DBEs who may be available to perform the items of work, such as DBEs certified or granted an expansion of services after the solicitation was issued.

2. MBE/DBE Firms Identified by Bidders/Offerors

(a) When the procurement does not include a list of Identified MBE/DBE Firms, bidders/offerors should reasonably identify the MBE Firms or DBE Firms, whichever is appropriate, that are available to perform the Identified Items of Work.

(b) Any MBE/DBE Firms identified as available by the bidder/offeror should be certified in the appropriate program (MBE for State-funded procurements or DBE for federally-funded procurements)

(c) Any MBE/DBE Firms identified as available by the bidder/offeror should be certified to perform the Identified Items of Work.

C. Solicit MBE/DBEs

1. Solicit <u>all</u> Identified Firms for all Identified Items of Work by providing written notice. The bidder/offeror should:

(a) provide the written solicitation at least 10 days prior to bid opening to allow sufficient time for the MBE/DBE Firms to respond;

(b) send the written solicitation by first-class mail, facsimile, or email using contact information in the MBE/DBE Directory, unless the bidder/offeror has a valid basis for using different contact information; and

(c) provide adequate information about the plans, specifications, anticipated time schedule for portions of the work to be performed by the MBE/DBE, and other requirements of the contract to

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assist MBE/DBE Firms in responding. (This information may be provided by including hard copies in the written solicitation or by <u>electronic means</u> as described in C.3 below.)

2. "<u>All</u>" Identified Firms includes the DBEs listed in the procurement and any MBE/DBE Firms you identify as potentially available to perform the Identified Items of Work, but it does not include MBE/DBE Firms who are no longer certified to perform the work as of the date the bidder/offeror provides written solicitations.

3. "<u>Electronic Means</u>" includes, for example, information provided *via* a website or file transfer protocol (FTP) site containing the plans, specifications, and other requirements of the contract. If an interested MBE/DBE cannot access the information provided by electronic means, the bidder/offeror must make the information available in a manner that is accessible by the interested MBE/DBE.

4. Follow up on initial written solicitations by contacting DBEs to determine if they are interested. The follow up contact may be made:

(a) by telephone using the contact information in the MBE/DBE Directory, unless the bidder/offeror has a valid basis for using different contact information; or

(b) in writing *via* a method that differs from the method used for the initial written solicitation.

5. In addition to the written solicitation set forth in C.1 and the follow up required in C.4, use all other reasonable and available means to solicit the interest of MBE/DBE Firms certified to perform the work of the contract. Examples of other means include:

(a) attending any pre-bid meetings at which MBE/DBE Firms could be informed of contracting and subcontracting opportunities;

(b) if recommended by the procurement, advertising with or effectively using the services of at least two minority focused entities or media, including trade associations, minority/women community organizations, minority/women contractors' groups, and local, state, and federal minority/women business assistance offices listed on the MDOT Office of Minority Business Enterprise website; and

(c) effectively using the services of other organizations, as allowed on a case-by-case basis and authorized in the procurement, to provide assistance in the recruitment and placement of MBE/DBE Firms.

D. Negotiate With Interested MBE/DBE Firms

Bidders/Offerors must negotiate in good faith with interested MBE/DBE Firms.

- 1. Evidence of negotiation includes, without limitation, the following:
- (a) the names, addresses, and telephone numbers of MBE/DBE Firms that were considered;

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- (b) a description of the information provided regarding the plans and specifications for the work selected for subcontracting and the means used to provide that information; and
- (c) evidence as to why additional agreements could not be reached for MBE/DBE Firms to perform the work.

2. A bidder/offeror using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration.

3. The fact that there may be some additional costs involved in finding and using MBE/DBE Firms is not in itself sufficient reason for a bidder's/offeror's failure to meet the contract DBE goal, as long as such costs are reasonable. Factors to take into consideration when determining whether a MBE/DBE Firm's quote is excessive or unreasonable include, without limitation, the following:

- (a) the dollar difference between the MBE/DBE subcontractor's quote and the average of the other subcontractors' quotes received by the bidder/offeror;
- (b) the percentage difference between the MBE/DBE subcontractor's quote and the average of the other subcontractors' quotes received by the bidder/offeror;
- (c) the percentage that the DBE subcontractor's quote represents of the overall contract amount;
- (d) the number of MBE/DBE firms that the bidder/offeror solicited for that portion of the work;
- (e) whether the work described in the MBE/DBE and Non-MBE/DBE subcontractor quotes (or portions thereof) submitted for review is the same or comparable; and
- (f) the number of quotes received by the bidder/offeror for that portion of the work.

4. The above factors are not intended to be mandatory, exclusive, or exhaustive, and other evidence of an excessive or unreasonable price may be relevant.

5. The bidder/offeror may not use its price for self-performing work as a basis for rejecting a MBE/DBE Firm's quote as excessive or unreasonable.

6. The "average of the other subcontractors' quotes received by the" bidder/offeror refers to the average of the quotes received from all subcontractors, except that there should be quotes from at least three subcontractors, and there must be at least one quote from a MBE/DBE and one quote from a Non-MBE/DBE.

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7. A bidder/offeror shall not reject a MBE/DBE Firm as unqualified without sound reasons based on a thorough investigation of the firm's capabilities. For each certified MBE/DBE that is rejected as unqualified or that placed a subcontract quotation or offer that the bidder/offeror concludes is not acceptable, the bidder/offeror must provide a written detailed statement listing the reasons for this conclusion. The bidder/offeror also must document the steps taken to verify the capabilities of the MBE/DBE and Non-MBE/DBE Firms quoting similar work.

(a) The factors to take into consideration when assessing the capabilities of a MBE/DBE Firm, include, but are not limited to the following: financial capability, physical capacity to perform, available personnel and equipment, existing workload, experience performing the type of work, conduct and performance in previous contracts, and ability to meet reasonable contract requirements.

(b) The MBE/DBE Firm's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the efforts to meet the project goal.

E. **Assisting Interested MBE/DBE Firms**

When appropriate under the circumstances, the decision-maker will consider whether the bidder/offeror:

1. made reasonable efforts to assist interested MBE/DBE Firms in obtaining the bonding, lines of credit, or insurance required by MDOT or the bidder/offeror; and

2. made reasonable efforts to assist interested MBE/DBE Firms in obtaining necessary equipment, supplies, materials, or related assistance or services.

Other Considerations III.

In making a determination of Good Faith Efforts the decision-maker may consider engineering estimates, catalogue prices, general market availability and availability of certified MBE/DBE Firms in the area in which the work is to be performed, other bids or offers and subcontract bids or offers substantiating significant variances between certified MBE/DBE and Non-MBE/DBE costs of participation, and their impact on the overall cost of the contract to the State and any other relevant factors.

The decision-maker may take into account whether a bidder/offeror decided to self-perform subcontract work with its own forces, especially where the self-performed work is Identified Items of Work in the procurement. The decision-maker also may take into account the

performance of other bidders/offerors in meeting the contract. For example, when the apparent successful bidder/offeror fails to meet the contract goal, but others meet it, this reasonably raises the question of whether, with additional reasonable efforts, the apparent successful bidder/offeror

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could have met the goal. If the apparent successful bidder/offeror fails to meet the goal, but meets or exceeds the average MBE/DBE participation obtained by other bidders/offerors, this, when viewed in conjunction with other factors, could be evidence of the apparent successful bidder/offeror having made Good Faith Efforts.

IV. Documenting Good Faith Efforts

At a minimum, a bidder/offeror seeking a waiver of the MBE/DBE Goal(s) or a portion thereof must provide written documentation of its Good Faith Efforts, in accordance with COMAR 21.11.03.11, within 10 business days after receiving notice that it is the apparent awardee. The written documentation shall include the following:

A. Items of Work (Complete Good Faith Efforts Documentation Form E, Part 2)

A detailed statement of the efforts made to select portions of the work proposed to be performed by certified MBE/DBE Firms in order to increase the likelihood of achieving the stated MBE/DBE Goal(s).

B. Outreach/Solicitation/Negotiation

1. The record of the bidder's/offeror's compliance with the outreach efforts prescribed by COMAR 21.11.03.09C(2)(a) through (e) and 49 C.F.R. Part 26, Appendix A. (Complete Outreach Efforts Compliance Statement)

2. A detailed statement of the efforts made to contact and negotiate with MBE/DBE Firms including:

(a) the names, addresses, and telephone numbers of the MBE/DBE Firms who were contacted, with the dates and manner of contacts (letter, fax, email, telephone, etc.) (Complete Good Faith Efforts Form E, Part 3, and submit letters, fax cover sheets, emails, etc. documenting solicitations); and

(b) a description of the information provided to MBE/DBE Firms regarding the plans, specifications, and anticipated time schedule for portions of the work to be performed and the means used to provide that information.

C. Rejected MBE/DBE Firms (Complete Good Faith Efforts Form E, Part 4)

1. For each MBE/DBE Firm that the bidder/offeror concludes is not acceptable or qualified, a detailed statement of the reasons for the bidder's/offeror's conclusion, including the steps taken to verify the capabilities of the MBE/DBE and Non-MBE/DBE Firms quoting similar work.

2. For each certified MBE/DBE Firm that the bidder/offeror concludes has provided an excessive or unreasonable price, a detailed statement of the reasons for the bidder's/offeror's

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conclusion, including the quotes received from all MBE/DBE and Non-MBE/DBE firms bidding on the same or comparable work. (Include copies of all quotes received.)

3. A list of MBE/DBE Firms contacted but found to be unavailable. This list should be accompanied by a Minority Contractor Unavailability Certificate signed by the MBE/DBE contractor or a statement from the bidder/offeror that the MBE/DBE contractor refused to sign the Minority Contractor Unavailability Certificate.

D. Other Documentation

1. Submit any other documentation requested by the Procurement Officer to ascertain the bidder's/offeror's Good Faith Efforts.

2. Submit any other documentation the bidder/offeror believes will help the Procurement Officer ascertain its Good Faith Efforts.



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MDOT MBE/DBE FORM E GOOD FAITH EFFORTS GUIDANCE AND DOCUMENTATION

PART 2 – CERTIFICATION REGARDING GOOD FAITH EFFORTS DOCUMENTATION

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PARTS 3, 4, AND 5 MUST BE INCLUDED WITH THIS CERTIFICATE ALONG WITH ALL DOCUMENTS SUPPORTING YOUR WAIVER REQUEST.

I hereby request a waiver of (1) the Minority Business Enterprise (MBE) participation goal and/or subgoal(s), (2) the Disadvantaged Business Enterprise (DBE) participation goal, or (3) a portion of the pertinent MBE/DBE participation goal and/or MBE subgoal(s) for this procurement.¹ I affirm that I have reviewed the Good Faith Efforts Guidance MBE/DBE Form E. I further affirm under penalties of perjury that the contents of Parts 3, 4, and 5 of MDOT MBE/DBE Form E are true to the best of my knowledge, information and belief.

Company Name	Signature of Representative		
Address	Printed Name and Title		
City, State and Zip Code	Date		

¹ MBE participation goals and subgoals apply to State-funded procurements. DBE participation goals apply to federally-funded procurements. Federally-funded contracts do not have subgoals.

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MDOT MBE/DBE FORM E GOOD FAITH EFFORTS GUIDANCE AND DOCUMENTATION

PART 3 – IDENTIFIED ITEMS OF WORK BIDDER/OFFEROR MADE AVAILABLE TO MBE/DBE FIRMS

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Identify those items of work that the bidder/offeror made available to MBE/DBE Firms. This includes, where appropriate, those items the bidder/offeror identified and determined to subdivide into economically feasible units to facilitate the MBE/DBE participation. For each item listed, show the anticipated percentage of the total contract amount. It is the bidder's/offeror's responsibility to demonstrate that sufficient work to meet the goal was made available to MBE/DBE Firms, and the total percentage of the items of work identified for MBE/DBE participation equals or exceeds the percentage MBE/DBE goal set for the procurement. Note: If the procurement includes a list of bid items identified during the goal setting process as possible items of work for performance by MBE/DBE Firms, the bidder/offeror should make all of those items of work available to MBE/DBE Firms or explain why that item was not made available. If the bidder/offeror selects additional items of work to make available to MBE/DBE Firms, those additional items should also be included below.

Identified Items of Work	Was this work listed in the procurement?	Does bidder/offeror normally self-perform this work?	Was this work made available to MBE/DBE Firms? If no, explain why?		
	□ Yes □ No	□ Yes □ No	□ Yes □ No		
	□ Yes □ No	□ Yes □ No	□ Yes □ No		
	□ Yes □ No	□ Yes □ No	□ Yes □ No		
	□ Yes □ No	🗆 Yes 🗆 No	□ Yes □ No		
	□ Yes □ No	□ Yes □ No	□ Yes □ No		
	□ Yes □ No	□ Yes □ No	□ Yes □ No		

Please check if Additional Sheets are attached.



CONTRACT PROVISIONS

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PART 4 – IDENTIFIED MBE/DBE FIRMS AND RECORD OF SOLICITATIONS

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Prime Contractor	Project Description	Solicitation Number		

Identify the MBE/DBE Firms solicited to provide quotes for the Identified Items of Work made available for MBE/DBE participation. Include the name of the MBE/DBE Firm solicited, items of work for which bids/quotes were solicited, date and manner of initial and follow-up solicitations, whether the MBE/DBE provided a quote, and whether the MBE/DBE is being used to meet the MBE/DBE participation goal. MBE/DBE Firms used to meet the participation goal must be included on the MBE/DBE Participation Schedule, Form B. Note: If the procurement includes a list of the MBE/DBE Firms identified during the goal setting process as potentially available to perform the items of work, the bidder/offeror should solicit all of those MBE/DBE Firms or explain why a specific MBE/DBE was not solicited. If the bidder/offeror identifies additional MBE/DBE Firms should also be included below. Copies of all written solicitations and documentation of follow-up calls to MBE/DBE Firms must be attached to this form. If the bidder/offeror used a Non-MBE/DBE or is self-performing the identified items of work, Part 4 must be completed.

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Name of Identified MBE/DBE Firm & MBE Classification	Describe Item of Work Solicited	Initial Solicitation Date & Method	Follow-up Solicitation Date & Method	Details for Follow-up Calls	Quote Rec'd	Quote Used	Reason Quote Rejected
Firm Name: MBE Classification (Check only if requesting waiver of MBE subgoal.) African American- Owned Hispanic American- Owned Asian American- Owned Women-Owned Other MBE Classification —		Date: Date: Facsimile Email	Date: Phone Mail Facsimile Email	Time of Call: Spoke With: □ Left Message	□ Yes □ No	□ Yes □ No	□ Used Other MBE/DBE □ Used Non- MBE/DBE □ Self- performing
Firm Name: MBE Classification (Check only if requesting waiver of MBE subgoal.) African American- Owned Hispanic American- Owned Asian American- Owned Women-Owned Other MBE Classification —		Date: Date: Facsimile Email	Date: Date: Mail Facsimile Email	Time of Call: Spoke With: □ Left Message	□ Yes □ No	□ Yes □ No	□ Used Other MBE/DBE □ Used Non- MBE/DBE □ Self- performing

Please check if Additional Sheets are attached.



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PART 5 – ADDITIONAL INFORMATION REGARDING REJECTED MBE/DBE QUOTES

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Prime Contractor	Project Description	Solicitation Number

This form must be completed if Part 3 indicates that a MBE/DBE quote was rejected because the bidder/offeror is using a Non-MBE/DBE or is self-performing the Identified Items of Work. Provide the Identified Items Work, indicate whether the work will be self-performed or performed by a Non-MBE/DBE, and if applicable, state the name of the Non-MBE/DBE. Also include the names of all MBE/DBE and Non-MBE/DBE Firms that provided a quote and the amount of each quote.

Describe Identified Items of Work Not Being Performed by MBE/DBE (Include spec/section number from bid)	Self-performing or Using Non- MBE/DBE (Provide name)	Amount of Non- MBE/DB E Quote	Name of Other Firms who Provided Quotes & Whether MBE/DBE or Non- MBE/DBE	Amount Quoted	Indicate Reason Why MBE/DBE Quote Rejected & Briefly Explain
	 Self-performing Using Non- MBE/DBE 	\$	□ MBE/DBE □ Non-MBE/DBE	\$	 □ Price □ Capabilities □ Other
	 Self-performing Using Non- MBE/DBE 	\$	□ MBE/DBE □ Non- MBE/DBE	\$	 □ Price □ Capabilities □ Other
	Self-performing Using Non- MBE/DBE	\$ 	□ MBE/DBE □ Non- MBE/DBE	\$	 □ Price □ Capabilities □ Other

Please check if Additional Sheets are attached.

STATE HIGHWAY ADMINISTRATION

CONTRACT PROVISIONS

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INFORMATION REQUIRED TO BE SUBMITTED FOR FEDERALLY ASSISTED CONTRACTS:

(a) Each bidder shall provide the following information:

	Street and/	or P.O. Box	
	City	State	Zip Code
DBE	Non-DBE	Age of the firm	years
Annual gross i	receipts per last c	alendar year<\$500	0,000\$500,000-1,000,000
\$1,000,0	00-3,000,000	\$3,000,000-5,000,000	\$5,000,000-10,000,000
>\$10,000	0,000		
NAME OF FI	RM:		
	Street and/	or P.O. Box	
	City	State	Zip Code
	City	Blate	Zip Code
DBE	•	Age of the firm	-
	Non-DBE	Age of the firm	years
Annual gross	Non-DBE receipts per last c	Age of the firm	years
Annual gross	Non-DBE receipts per last c 00-3,000,000	Age of the firm	years 0,000\$500,000-1,000,00
Annual gross 1 \$1,000,0 >\$10,00	Non-DBE receipts per last c 00-3,000,000 00,000	Age of the firm	years 0,000\$500,000-1,000,00 \$5,000,000-10,000,000
Annual gross 1 \$1,000,0 >\$10,00	Non-DBE receipts per last c 00-3,000,000 00,000	Age of the firm	years 0,000\$500,000-1,000,00 \$5,000,000-10,000,000
Annual gross 1 \$1,000,0 >\$10,00	Non-DBE receipts per last c 00-3,000,000 00,000 RM:	Age of the firm	years 0,000\$500,000-1,000,00 \$5,000,000-10,000,000
Annual gross 1 \$1,000,0 >\$10,00	Non-DBE receipts per last c 00-3,000,000 00,000 RM:	Age of the firm	years 0,000\$500,000-1,000,00 \$5,000,000-10,000,000
Annual gross 1 \$1,000,0 > \$10,00 NAME OF FI	Non-DBE receipts per last c 00-3,000,000 00,000 RM: Street and/ City	Age of the firm	years 0,000\$500,000-1,000,000 \$5,000,000-10,000,000 Zip Code

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CONTRACT PROVISIONS

PROPOSAL FORM PACKET — FEDERAL

NAME OF FI	RM:		
	Street and/	or P.O. Box	
	City	State	Zip Code
Annual gross r	eceipts per last ca 00-3,000,000	•	years 0,000\$500,000-1,000,000 \$5,000,000-10,000,000
NAME OF FII			
	Street and/	or P.O. Box	
	City	State	Zip Code
Annual gross r	eceipts per last ca 00-3,000,000	•	years 0,000\$500,000-1,000,000 \$5,000,000-10,000,000
NAME OF FII	RM:		
	Street and/	or P.O. Box	
	City	State	Zip Code
DBE	Non-DBE	Age of the firm	years
-	00-3,000,000		0,000\$500,000-1,000,000\$5,000,000-10,000,000

Submit additional copies of this page as page 43A of 45, 43B of 45, etc. as necessary, and place them as the last pages in the Invitation for Bids. Place an "X" for "NO" on the last copy. Any additional Copies: _____ NO ____ YES



CONTRACT PROVISIONS PROPOSAL FORM PACKET — FEDERAL CONTRACT NO. AX7665D82 FAP NO. AC-STBG-000B(276)E 40 of 43

EXTRA WORK, CONTRACT TIME, BONDING, LIQUIDATED DAMAGES, AND PROPOSAL GUARANTY

EXTRA WORK. It is further proposed to do all "Extra Work" which may be required to complete the work contemplated at unit prices or lump sum prices to be agreed upon in writing prior to starting such extra work, or if such prices or sums cannot be agreed upon, to perform such work on a Force Account basis as specified in TC-7.03.

CONTRACT TIME. To commence work as specified in the "Notice to Proceed" and to prosecute the work to complete the contract for all Outfalls and Stream Restorations and all Stormwater Management As-Builts have been submitted per the requirements of this RFP and received structural acceptance in writing from the Administrations and Approval Authority within/or before

 $\underline{N/A}$ (working days)

Thursday, October 01, 2020 (calendar date)

Any delay in awarding or the execution of this contract will not be considered as a basis for any monetary claim, however, an extension of time may be considered by the Administration, if warranted.

NUMBER OF CREDIT ACRES. The Proposer shall establish the Number of Credit Acres their project will achieve, and it shall be equal to or greater than 500 credit acres:

Total Number of Credit Acres: (acres) - TO BE COMPLETED BY THE PROPOSER

BONDING. When the Contractor's bid is \$100,000 or more, the Contractor shall furnish a Payment Bond and a Performance Bond in the full amount of the Contract Award as security for the construction and completion of the contract in conformance with the Plans, Standard Specifications, revisions thereto, General Provisions and Special Provisions.

To guarantee all of the work performed under this contract to be done in conformance with the Standard Specifications, revisions thereto, General Provisions and Special Provisions in a good workmanlike manner and to renew or repair any work which may be rejected due to defective materials or workmanship, prior to final completion and acceptance of the work, also we have the equipment, labor, supervision and financial capacity to perform this contract either with our organization or with Subcontractors.

LIQUIDATED DAMAGES. The Contractor is hereby advised that liquidated damages in the amount of

 $\underline{N/A}$ dollars ($\underline{N/A}$) per working day

\$3,295.00 dollars (1) per calendar day



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will be assessed for unauthorized extensions beyond the contracted time of completion.

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PROPOSAL GUARANTY. A bid security is not required on Contract Proposals under \$100,000.

A bid security totaling at least five percent (5%) of the bid amount will be required on contracts of \$100,000 or over.

Acceptable forms of security for bid guaranty shall be per GP-2.07.

Enclosed herewith, find bid security based on at least five percent (5%) of the aggregate amount of the bid submitted, and made payable to the "State of Maryland". This bid security is a Proposal Guaranty (which is understood will be forfeited in the event the contract is not executed, if awarded to the signer of this affidavit).

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Commercial Nondiscrimination

- A. As a condition of entering into this Agreement, Contractor represents and warrants that it will comply with the State's Commercial Nondiscrimination Policy, as described under Title 19 of the State Finance and Procurement Article of the Annotated Code of Maryland. As part of such compliance, Contractor may not discriminate on the basis of race, color, religion, ancestry, national origin, sex, age, marital status, sexual orientation, sexual identity, genetic information or an individual's refusal to submit to a genetic test or make available the results of a genetic test or on the basis of disability, or other unlawful forms of discrimination in the solicitation, selection, hiring, or commercial treatment of subcontractors, vendors, suppliers, or commercial customers, nor shall Contractor retaliate against any person for reporting instances of such discrimination. Contractor shall provide equal opportunity for subcontractors, vendors, and suppliers to participate in all of its public sector and private sector subcontracting and supply opportunities, provided that this clause does not prohibit or limit lawful efforts to remedy the effects of marketplace discrimination that have occurred or are occurring in the marketplace. Contractor understands that a material violation of this clause shall be considered a material breach of this Agreement and may result in termination of this Agreement, disqualification of Contractor from participating in State contracts, or other sanctions. This clause is not enforceable by or for the benefit of, and creates no obligation to, any third party.
- B. The Contractor agrees to include the clause contained in subsection (A), above, in all subcontracts, regardless of the tier.
- C As a condition of entering into this Agreement, upon the request of the Commission on Civil Rights, and only after the filing of a complaint against Contractor under Title 19 of the State Finance and Procurement Article of the Annotated Code of Maryland, as amended from time to time, Contractor agrees to provide within 60 days after the request a complete list of the names of all subcontractors, vendors, and suppliers that Contractor has used in the past 4 years on any of its contracts that were undertaken within the State of Maryland, including the total dollar amount paid by Contractor on each subcontract or supply contract. Contractor further agrees to cooperate in any investigation conducted by the State pursuant to the State's Commercial Nondiscrimination Policy as set forth under Title 19 of the State Finance and Procurement Article of the Annotated Code of Maryland, and to provide any documents relevant to any investigation that are requested by the State. Contractor understands that violation of this clause is a material breach of this Agreement and may result in contract termination, disqualification by the State from participating in State contracts, and other sanctions.