

BID PROPOSAL AND CONTRACT

Citywide CCTV Camera Locations – Phase 2

UPC: 84364

VDOT Project No: U000-114-167

Federal Aid Project No.: CM-5A03(608)

**HAMPTON ROADS DISTRICT
CITY OF HAMPTON, VIRGINIA**



September 3, 2013

Citywide CCTV Camera Locations – Phase 2
 VDOT Project No.: U000-114-167
 UPC: 84364; Federal Aid Project No.: CM-5A03(608)

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I. NOTICE OF ADVERTISEMENT

PROJECT: ITB No. 14-21/A Citywide CCTV Camera Locations – Phase 2
VDOT Project No: U000-114-167 UPC 84364
Federal Aid Project No.: CM-5A03(608)
LOCATION: City of Hampton, Virginia
DATE: September 3, 2013

The City of Hampton, Virginia will receive sealed Bids for the above titled project at the Consolidated Procurement Office, located at 1 Franklin Street, Suite 345, Hampton, VA 23669-3570 until **2:00 p.m. local time on Tuesday, September 24, 2013**, at which time the Bids will be publicly opened and read aloud. Any Bids received after the specified time and date will not be considered.

The project was developed under UPC 84364, VDOT Project Number U000-114-167, Federal Aid Project Number: CM-5A03(608).

The intent of this project is to install nine (9) new closed circuit television (CCTV) cameras owned and operated by the City of Hampton on various arterials within the City of Hampton. The CCTV cameras shall be installed at existing signalized intersections along several principal arterials and minor arterials throughout the City to monitor traffic conditions on these heavily-traveled routes. Eight of the cameras will be installed on exclusive camera poles/foundations and one camera will be installed on an existing strain pole.

The project also includes the installation of camera control cables between the CCTV camera and the cabinet/field encoder units for each camera installation. It is understood that the City will configure the proposed radios and network switches that will be installed by the bidding contractor. Additional decoders are included for the City's Transportation Control Center (TCC) to accommodate the camera expansion project. The contractor will coordinate with City staff for the installation and integration of these components as a system.

Two locations where existing hard wiring is not present will require new wireless communications and separate electrical services. For these two locations, one will require a new electrical service and the other can use an existing source. All other locations have existing Ethernet fiber optic communications, which do not require splice details in this project.

Bid Documents may be examined at the Procurement Office, City of Hampton, located at 1 Franklin Street, Hampton, VA 23669-3570 between the hours of 9:00 a.m. and 4:00 p.m.

Bid Documents are available electronically. Requests for Bid Documents to be mailed to the Bidder shall be made in writing and accompanied by a non-refundable check in the amount of \$10.00 or an on call pickup authorization and account number for a parcel delivery service. Checks shall be made payable to the City of Hampton.

This project shall be constructed in accordance with: the Virginia Department of Transportation *Road and Bridge Specifications*, dated 2007; and the Virginia Department of Transportation *Road and Bridge Standards*, dated 2008; the *Virginia Work Area Protection Manual*, dated May 1, 2011; the 2009 edition of the *MUTCD*; and Supplemental Specifications, Special Provisions and Special Provision Copied Notes in this contract.

Bid Security in the amount of **five percent (5 %)** of the Bid shall be submitted with each Bid.

A MANDATORY PRE-BID CONFERENCE will be held on **Tuesday, September 10, 2013 at 1:00 p.m. local time** at the City of Hampton, Department of Public Works, Engineering Conference Room on the Fourth Floor of the City Municipal Building, 22 Lincoln Street, Hampton, VA 23669.

Contractor registration in accordance with Title 2.2 Chapter 43, Code of Virginia is required.

The Bidder shall include in its Bid the following notation:

"Licensed Virginia Contractor No. _____"

VDOT Prequalified Contractors and/or Subcontractors are required for this project. Prequalification of Contractors and/or Subcontractors shall be in accordance with VDOT Road and Bridge Specifications, Section 102.

Withdrawal of Bids due to error shall be subject to and in accordance with Section 2.2-4330 of the Code of Virginia and the Contract Documents.

The Owner reserves the right to reject any and all Bids and to waive any minor non-substantive errors in the Bid.

The City of Hampton does not discriminate in the solicitation or awarding of contracts on the basis of race, religion, faith-based organizations, color, national origin, age, disability or any other basis prohibited by state or federal law.

By: Octavia Andrew, CPPB, VCO
Senior Buyer
City of Hampton
Procurement Department

II. BID FORM

Bids to be opened:	2:00 p.m. September 24, 2013
Contract time limit	180 Days
Performance Bond:	100%
Payment Bond:	100%
Bid Security:	5%

To: **City of Hampton, Virginia**
1 Franklin St, Suite 345
Hampton, VA 23669

A. BID PROPOSAL

In compliance with the Contract Documents, titled **ITB No. 14-21/A Citywide CCTV Camera Locations – Phase 2, VDOT Project No.: U000-114-167 (UPC 84364), Federal Aid Project No.:CM-5A03(608)**, and all Addenda issued to date all of which are part of this Bid, the undersigned hereby proposes to furnish all items including materials, supervision, labor, and equipment in strict accordance with, said Contract Documents, for the total base sum of:

SEE NEXT PAGE

Contractor Bid Tabulation Sheet

ITEM NO.	DESCRIPTION	Camera ID:	42	43	45	46	47	48	49	50	51	General	QTY	UNIT COST	TOTAL
		UNIT													
1	30' CCTV Camera Pole	EA	1	1	1	0	1	0	0	1	1	0	6		
2	50' CCTV Camera Pole	EA	0	0	0	1	0	1	0	0	0	0	2		
3	CCTV Camera Pole Foundation	EA	1	1	1	1	1	1	0	1	1	0	8		
4	CCTV Camera Control Cabinet	EA	0	0	0	1	0	1	0	0	0	0	2		
5	1.25" Tren. PVC/HDPE	LF	25	40	30	470	0	235	0	75	35	0	910		
6	1.25" Steel Riser	LF	0	30	0	0	30	0	30	0	60	0	150		
7	1.25" Bored PVC/HDPE	LF	0	0	0	0	0	50	0	0	0	0	50		
8	CCTV Camera Cable	LF	145	315	165	45	75	50	225	295	250	0	1565		
9	8 AWG Conductor	LF	0	0	0	950	0	575	0	0	0	0	1525		
10	Junction Box JB-S2	EA	0	1	0	2	0	1	0	0	1	0	5		
11	CCTV Camera Assembly	EA	1	1	1	1	1	1	1	1	1	0	9		
12	CCTV Camera Assembly (Furnish Only)	EA	0	0	0	0	0	0	0	0	0	3	3		
13	Wireless Radio System	EA	0	0	0	2	0	2	0	0	0	0	4		
14	Encoder	EA	1	1	1	1	1	1	1	1	1	0	9		
15	Encoder (Furnish Only)	EA	0	0	0	0	0	0	0	0	0	2	2		
16	Decoder (Furnish Only)	EA	0	0	0	0	0	0	0	0	0	4	4		
17	Decoder Card Cage (Furnish Only)	EA	0	0	0	0	0	0	0	0	0	1	1		
18	SE-4 Electrical Service	EA	0	0	0	0	0	1	0	0	0	0	1		
19	Mobilization	LS	0	0	0	0	0	0	0	0	0	1	1		
20	Maintenance of Traffic	LS	0	0	0	0	0	0	0	0	0	1	1		
21	Erosion and Sediment Control	LS	0	0	0	0	0	0	0	0	0	1	1		
														Total	

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities provided, determined as provided in the Contract Documents. The prices quoted shall include without exception all materials, supervision, labor, equipment, appliances, clean-up, incidental items, applicable sales, use and other taxes, insurance, building permit or fees, and the Contractor's labor, overhead, profit, mobilization and other mark-ups, and in full accordance with the Contract Documents. Include allowance for waste where appropriate. The unit prices shall be maintained throughout the Contract Time.

B. ADDENDA

The undersigned acknowledges receipt of the following addenda:

Addendum No. Dated:

Addendum No. Dated:

Addendum No. Dated:

C. It is expressly agreed by us that the City of Hampton, Virginia shall have the right to reject any and all Bids and to waive any minor non-substantive errors in the Bid. Award shall be based on the lowest responsive and responsible Bid for Base Bid.

D. Attached is a bond conforming to the requirements of the 2007 VDOT Road and Bridge Specifications and 2008 VDOT Roads and Bridge Standards Vol. I and II, it being understood that such bond is to be forfeited as liquidated damages if, upon acceptance of the terms of this proposal, I/we fail to execute the contract and furnish bond as provided in the current Road and Bridge Specifications.

E. I/we declare that no other person, firm or corporation is interested in this proposal.

F. I/we have carefully examined the plans, job specifications, 2007 VDOT Road and Bridge Specifications and 2008 VDOT Roads and Bridge Standards Vol. I and II, and all other documents pertaining thereto and thoroughly understand the contents thereof.

G. I/we meet the prequalification requirements for bidding on this proposal. Prequalification of Contractors and/or Subcontractors is in accordance with VDOT Road and Bridge Specifications, Section 102.

H. I/we understand that the plans, 2007 VDOT Road and Bridge Specifications, and 2008 VDOT Roads and Bridge Standards Vol. I and II are a part of this proposal; that all of the quantities shown herewith are a part of this proposal; that all the quantities shown herewith are approximate only.

I. I/we have examined the location of the proposed work and source of supply of materials.

J. I/we agree to bind myself/ourselves upon award of the City of Hampton, Virginia under this proposal to a contract with necessary surety bond to start work within 15 days of notification of the contract execution or as excepted by other contract language permitted by project specifications, and to complete all work in accordance with the plans, job specifications and current Road and Bridge Specifications within the time limit set forth in the contract

K. CONTRACTOR'S REGISTRATION

Registered Virginia Contractor Class and No. _____

*(NOTE: FAILURE TO INCLUDE CONTRACTOR'S REGISTRATION NUMBER IS GROUNDS FOR
REJECTION OF THE BID.)*

L. SIGNATURE

Contractor _____

Signed _____

Date _____

Title _____

NOTE: If Bidder is a corporation, write state of incorporation under signature.

VENDOR#/FIN# _____

MAILING ADDRESS AND TELEPHONE NUMBER OF BIDDER:

IF CORPORATION, PROVIDE NAME AND MAILING ADDRESS AS REQUIRED BELOW:

PRESIDENT

SECRETARY

TREASURER

IF PARTNERSHIP, PROPRIETORSHIP, LIMITED LIABILITY COMPANY OR OTHER FIRM,
PROVIDE NAME AND MAILING ADDRESS OF EACH PARTNER, PROPRIETOR, OR MEMBER
OF FIRM.

III. BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____ as Principal, and _____ as Surety, are hereby held and firmly bound unto **City of Hampton, Virginia** as OWNER in the penal sum of _____ (Five Percent) for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____, 20____.

The Condition of the above obligation is such that whereas the Principal has submitted to the OWNER a certain BID, attached hereto and hereby made a part hereof to enter into a Contract in writing, for the project entitled: **ITB No. 14-21/A Citywide CCTV Camera Locations – Phase 2, VDOT Project No.: U000-114-167 (UPC 84364), Federal Aid Project No.: CM-5A03(608).**

NOW, THEREFORE,

(a) If said BID shall be rejected, or

(b) If said BID shall be accepted and the Principal shall execute and deliver a Contract in the attachment hereto (properly completed in accordance with said BID) and shall furnish a BOND for faithful performance of said Contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year set forth above.

Principal

Surety

By: _____
Attorney-in-Fact

IMPORTANT - Surety companies executing BONDS shall appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the Commonwealth of Virginia.

IV. CERTIFICATION REGARDING DEBARMENT

This is to certify that this person/firm/corporation is not now debarred by the Federal Government or by the Commonwealth of Virginia or by any other state, or by any town, city, or county, from submitting Bids on contracts for construction covered by this solicitation, nor are they an agent of any person or entity that is now so debarred.

Name of Official

Title

Firm or Corporation

Date

V. AGREEMENT

This AGREEMENT, dated this ____ day of _____ 2013, by and between City of Hampton hereinafter called the Owner; and _____ (a corporation, or an unincorporated organization organized and existing under the laws of the State/Commonwealth of _____ or, an individual trading under the above name) hereinafter called the Contractor.

WITNESSETH: The Owner and Contractor, for the consideration stated herein, agree as follows:

A. Scope of Work

The Contractor shall perform all required Work and shall provide and furnish all labor, materials, necessary tools, expendable equipment and utility and transportation service and all else required to complete the construction of the **ITB No. 14-21/A Citywide CCTV Camera Locations – Phase 2, VDOT Project No.: U000-114-167 (UPC 84364), Federal Aid Project No.: CM-5A03(608)**, project all in strict accordance with the Contract Documents, the terms of which are incorporated herein by reference.

It is understood and agreed that said labor, materials, tools, equipment and service shall be furnished and said Work performed and completed under the direction and supervision of the Contractor and subject to the approval of the Owner or its authorized representative.

B. Engineer

The power, duties, and responsibilities conferred hereto to the Engineer shall be construed to be those of the Owner or its authorized representative. Where the terms “Department”, “Engineer” and “Contract Engineer” appear in Virginia Department of Transportation Supplemental Specifications, Special Provisions and Special Provision Copied Notes used in this contract and the Virginia Department of Transportation publication(s) that each references, the authority identified shall be construed to be those of the Owner or its authorized representative.

C. Guarantee

All materials and equipment, furnished by the Contractor, and all construction involved in this Agreement are hereby guaranteed by the Contractor to be free from defects owing to faulty materials or workmanship for a period of one year after date of Completion of the Work. All Work that proves defective, by reason of faulty material or workmanship within said period of one year, shall be replaced by the Contractor free of cost to the Owner. These guarantees shall not operate as a waiver of any of the Owner’s rights and remedies for default under or breach of the Agreement which rights and remedies may be exercised at any time within the period of any applicable statute of limitations.

D. Contract Price

The Owner shall pay the Contractor as just compensation for the satisfactory performance of the Work, subject to any additions or deductions as provided in the Contract Documents, the unit and/or lump sum price as contained in the Bid Schedule attached hereto.

The Contract Price is _____ (\$) based upon unit and/or lump sum prices extended as herein contained.

E. Payments

The Owner will pay the Contract Price to the Contractor in the manner and at such times as set forth in Section 109 of the *Virginia Department of Transportation Road and Bridge Specifications*, as referenced in Section I. below and as specifically revised for this Project.

F. Time

The undersigned Contractor agrees to complete all Work under this Agreement within **180** Days from the date of the Notice to Proceed. Contract completion shall be as described by Section 108.10 of the *Virginia Department of Transportation Road and Bridge Specifications*, as referenced in Section I. below.

G. Applicable Law/Compliance

(1) Applicable Law

This Agreement shall be deemed to be a Virginia contract and shall be governed as to all matters of validity, interpretations, obligations, performance, or otherwise, exclusively by the laws of the Commonwealth of Virginia, and all questions arising with respect thereto shall be determined in accordance with such laws. Regardless of where actually delivered and accepted, this Agreement shall be deemed to have been delivered and accepted by the parties in the Commonwealth of Virginia.

(2) Compliance with all Laws

Contractor shall comply with all federal, state and local statutes, ordinances, and regulations, now in effect or hereafter adopted, in the performance of Work set forth herein. Contractor represents that it possesses all necessary licenses and permits required to conduct its business and will acquire any additional license and permits necessary for performance of this Agreement prior to the initiation of Work. [If the Contractor is a corporation] Contractor further expressly represents that it is a corporation in good standing in the Commonwealth of Virginia and will remain in good standing throughout the term of the contract. Contractor shall at all times observe all health and safety measures and precautions necessary for the sanitary and safe performance of the contract Work.

(3) Venue

Any and all suits for any claims or for any breach or dispute arising out of these Contract Documents shall be maintained in the appropriate court of competent jurisdiction in the City of Hampton, Virginia.

(4) Environmental Considerations

Any cost or expense associated with environmentally related violations of the law, the creation or maintenance of a nuisance, or releases of hazardous substance, including but not limited to, the cost of any cleanup activities, removals, remediation, responses, damages, fines, administrative or civil penalties or charges imposed on the Owner, whether because of actions or suits by any governmental or regulatory agency or by any private party, as a result of the release of any hazardous substances, or any

noncompliance with or failure to meet any federal, state or local standards, requirements, laws, statutes, regulations or the law of nuisance by the Contractor (or its agents, officers, employees, subcontractors, consultants, subconsultants, or any other persons, corporations, or legal entities employed, utilized, or retained by the Contractor) in the performance of this Agreement or related activities, shall be paid by the Contractor.

(5) Non-Discrimination/Drug-Free Workplace Provisions

a. Employment discrimination by Contractor shall be prohibited. Contractor agrees to comply with Special Provision SF010CF-0309; “FHWA 1273, MEMORANDUM AND CFR CHANGE” dated January 19, 2009 included in the Contract Documents. Furthermore, during the performance of this Agreement, Contractor agrees as follows:

i. Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification/consideration reasonably necessary to the normal operation of Contractor.

Contractor will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Act of 1975, as amended, where applicable, the Virginians With Disabilities Act, the Americans With Disabilities Act, and the Code of Virginia § 2.2-4311.

If the award is made to a faith-based organization, the organization shall not discriminate against any recipient of goods, services, or disbursements made pursuant to the Agreement on the basis of the recipient’s religion, religious belief, refusal to participate in a religious practice, or on the basis of race, age, color, gender or national origin and shall be subject to the same rules as other organizations that contract with public bodies to account for the use of the funds provided; however, if the faith-based organization segregates public funds into separate accounts, only the accounts and programs funded with public funds shall be subject to audit by the public body.

Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

ii. Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, will state that Contractor is an equal opportunity employer.

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

iv. Contractor will include the provisions of the foregoing subsections (i) and (ii), and (iii) in every subcontract or purchase order of over \$10,000, so

that the provisions will be binding upon each subcontractor or vendor

b. During the performance of this Agreement, Contractor agrees as follows:

i. Contractor will provide a drug-free workplace for Contractor's employees.

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

iii. Contractor will state in all solicitations or advertisements for employees placed by or on behalf of Contractor that Contractor maintains a drug-free workplace.

iv. Contractor will include the provisions of the foregoing subsections (i), (ii) and (iii) in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

v. For the purposes of this section, "Drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a Contractor, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession, or use of any controlled substance or marijuana during the performance of the contract."

H. Liquidated Damages

The damage and loss to the Owner resulting from failure of the Contractor to complete the Work within the time specified in this Agreement, plus any extension of time granted, shall be as stipulated in Section 108.06 of the *Virginia Department of Transportation Road and Bridge Specifications*.

I. Hierarchy of Regulations

The Contractor shall comply with all federal, state and local statutes, ordinances, and regulations ("provisions") now in effect or hereafter adopted, in the performance of the scope of work set forth herein. To the extent that any controlling federal provisions conflict with those of the Commonwealth of Virginia (State) or the locality, the federal provisions will control. To the extent the State or City provisions are more restrictive and/or conservative while remaining consistent with federal provisions, the State and City provisions will control respectively.

J. Binding

This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

PRE-BID QUESTION FORM

I.T.B. 14-21/A Citywide CCTV Camera Locations – Phase 2

DATE: _____

NAME: _____

COMPANY: _____

SPECIFICATION SECTION _____ PARAGRAPH _____

A separate form must be used for each question.

Submit all Pre-Bid Question Forms to:

City of Hampton Procurement Office, Attn: Octavia Andrew, Email: oandrew@hampton.gov, Fax: 757-727-2207.

All questions are due in the Procurement Office no later than **12:00 p.m. (Noon) on Friday, September 13, 2013**

[illegible]

SUPPLEMENTAL CITY PROVISIONS

Insurance Coverage and Limits Required

Submit proof of insurance in accordance with requirements as outlined in sections 103.06(d)(f) of the Virginia Department of Transportation Road and Bridge Specifications.

Worker's Compensation must fully comply with all statutory requirements of the Commonwealth of Virginia (Including coverage under United States Longshoremen's and Harbor Workers Act, where applicable, to include Employer's Liability).

Contractor shall submit:

- Proof of Insurance on the form of a certificate prior to the commencement of work.
- Description section to include solicitation number with simple statement of services/work.
- A stipulation that insurance cannot be canceled without 30 days notice except for non-payment where ten (10) days notice of expiration applies.

The Certificate must name the City of Hampton as an additional insured. The endorsement policy would be that which is attached to the Contractor's liability policy that acknowledges the City as an also insured on all policies the City requires to be endorsed. This shall be either a direct endorsement that actually names the City or a blanket endorsement that contract states that the City will be named as an also insured on the insurance policy.

The Contractor shall secure and maintain such insurance policies as will protect himself, his subcontractors, and unless otherwise specified, the City of Hampton, from claims for bodily injuries, death or property damage which may arise from operation under this Agreement, whether such operations be by himself or by any subcontractor or anyone employed by them directly or indirectly.

The establishment of minimum limits of insurance by the City does not reduce or limit the liability or responsibilities of the Contractor.

Should any of the above described policies be cancelled before the expiration date thereof, notice shall be delivered in accordance with the policy provisions. The City further requires thirty (30) days notice of cancellation must be noted in the policy or in additional insured and alternate employer endorsements. Failure to obtain such notice provisions will void any awards or contracts to the Contractor.

Order No.:

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
CONTRACT PERFORMANCE BOND

Know all men by these presents. That we _____

Hereinafter called the ("principal") and _____

_____ (hereinafter called the "Surety"), are held and firmly
bound unto the Commonwealth of Virginia (hereinafter called the "Owner"), in full and just sum of _____

Dollars (\$ _____) lawful money of the United States of America to be paid to said

"Owner." Its successors, and assigns, to which payment well and truly to be made we bind ourselves, executors, administrators, successors, and assigns jointly and severally and firmly by these presents:

Whereas, The above bounden: "Principal" has entered into a contract with the said "Owner" by and through the Commonwealth Transportation Commissioner of the Department of Transportation, said contract being attached hereto, for constructing or otherwise improving

Project: _____

Located _____

Contract ID Number: _____

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

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

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

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

hereunto affixed this _____ day of _____ in the year _____

(Principal)

(Surety Company)

By
:

By:

(Officer, Partner or Owner) (SEAL)

Attorney-in-fact (SEAL)

(Address)

(Address)

(Continued)

ORDER NO.:

CONTRACT PAYMENT BOND

Know all men by these presents. That we _____

Hereinafter called the "Principal" and _____

(hereinafter called the "Surety"), are held and firmly bound unto the Commonwealth of Virginia (hereinafter called the "Owner"), in full and the just sum of _____

Dollars (\$ _____) lawful money of the United States of America to be paid to said

"Owner." Its successors, and assigns, to which payment well and truly to be made we bind ourselves, executors, administrators, successors, and assigns jointly and severally and firmly by these presents:

Whereas, The above bounden "Principal" has entered into a contract with the said "Owner" by and through the Commonwealth Transportation Commissioner of the Department of Transportation, said contract being attached hereto, for constructing or otherwise improving

Project: _____

Located: _____

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

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

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

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

hereunto affixed this _____ day of _____ in the year _____

(Principal)

(Surety Company)

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

By: _____
Attorney-in-fact (SEAL)

(Address)

(Address)

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
PROPOSAL GUARANTY**

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

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

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

PROJECT NUMBER:

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

(Principal*)

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

(Surety Company)

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

(Principal*)

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

(Address)

By: _____
(Surety Company)

(Principal*)

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

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

By: _____
(Address)

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

Electronic Bid Only: In lieu of completing the above section of the Contract Performance Bond, the Principal shall file an Electronic Bid Bond when bidding electronically. By signing below the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the Commonwealth of Virginia under the same conditions of the bid bond as shown above.

Electronic Bid Bond ID#

Company/Bidder Name

Signature and Title

**Attach copy of Power of Attorney

VIRGINIA DEPARTMENT OF TRANSPORTATION

**STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL PERMIT FOR THE
DISCHARGE OF STORMWATER FROM CONSTRUCTION ACTIVITIES CONTRACTOR AND
SUBCONTRACTOR CERTIFICATION STATEMENT**

Order No.: _____ Project _____ t Number: _____

Route: _____ Contract _____ ID. #: _____

I certify under penalty of law that I understand the terms and conditions of the project contract, plans, permits, specifications and standards related to the erosion and sediment control, stormwater management and stormwater pollution prevention plan requirements for the affected activities associated with this project, the Virginia Stormwater Management Program (VSMP), and the General Permit for the Discharge of Stormwater from Construction Activities, if applicable to this project, issued by the Virginia Department of Conservation and Recreation. The VSMP Permit authorizes the storm water discharges associated with the construction activities from the project site identified and described in the bid documents and subsequent contract including any off-site support activities required for the complete fulfillment of the work therein.

Signature: _____

Name: _____

Title: _____

Contracting Firm: _____

Address: _____

Phone Number: _____

Address/Description of Site: _____
(Include off-site areas) _____

Certified on this date: _____

(Note: This form must be returned with performance and payment bonds)

FHWA NO.	DATE SUBMITTED
-----------------	-----------------------

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

TITLE

SUBCONTRACTOR/SUPPLIER SOLICITATION AND UTILIZATION (ALL)

[illegible]

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

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

--DO NOT DETACH--

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

CONTRACT I.D. NUMBER _____

PROJECT NUMBER _____

FHWA NUMBER _____

DISTRICT _____

DATE BID SUBMITTED _____

BIDDER'S NAME _____

SIGNATURE _____

TITLE _____

VENDOR NUMBER _____

DBE GOAL FROM BID PROPOSAL _____

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

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

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

BIDDER _____ SIGNATURE _____

TITLE _____

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

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

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

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY

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

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

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

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

BIDDER _____ SIGNATURE _____

TITLE _____

TELEPHONE LOG

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

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

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

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

BIDDER _____ SIGNATURE _____

TITLE _____

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

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

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

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

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

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

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

BIDDER _____ SIGNATURE _____

TITLE _____

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

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

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

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

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

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

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

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

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

BIDDER _____ SIGNATURE _____

TITLE _____

ADVERTISEMENTS OR PROOFS OF PUBLICATION.

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

PUBLICATIONS	DATES OF ADVERTISEMENT

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

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

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

BIDDER _____ SIGNATURE _____

TITLE _____

NAMES OF AGENCIES CONTACTED TO PROVIDE ASSISTANCE

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

NAME OF AGENCY	METHOD AND DATE OF CONTACT	RESULTS

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

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

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

BIDDER _____ SIGNATURE _____

TITLE _____

TECHNICAL ASSISTANCE AND INFORMATION PROVIDED TO DBEs

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

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

DBEs ASSISTED	INFORMATION PROVIDED	DATE OF CONTACT

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
DBE GOOD FAITH EFFORTS DOCUMENTATION

CONTRACT I.D. NO. _____ DATE SUBMITTED _____

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

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

BIDDER _____ SIGNATURE _____

TITLE _____

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

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

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

DBEs ASSISTED	ASSISTANCE OFFERED	DATES SERVICES OFFERED AND/OR PROVIDED

NOTE: ATTACH ADDITIONAL PAGES IF NECESSARY.

NOTE: ATTACH ADDITIONAL PAGES, IF NECESSARY

**ORDER NO.:
CONTRACT ID. NO.:**

Form C-104
Rev. 7-13-05

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION**

PROJECT:

FHWA:

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

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

AFFIDAVIT

The undersigned is duly authorized by the bidder to make the foregoing statement to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

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

(Name of Firm) By: _____ Title (print)
STATE of _____ COUNTY (CITY) of _____

To-wit: _____, a Notary Public in and for the State and
County(City) aforesaid, hereby certify that this day _____

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

Subscribed and sworn to before me this _____ day of _____, 20 ____
My Commission expires _____

Notary Public

OR
UNSWORN DECLARATION

The undersigned is duly authorized by the bidder to make the foregoing statement to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

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

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

**ORDER NO.:
CONTRACT ID. NO.:**

Form C-105
Rev. 7-13-05

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
AFFIDAVIT**

PROJECT:

FHWA:

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

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

During the preceding twelve months, I (we) have been a member of the following Highway Contractor's Associations, as defined in Section 33.1-336 of the Code of Virginia (1970). (If none, so state).

NAME	Location of Principal Office
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

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

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

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

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

(Continued)

ORDER NO.:
CONTRACT ID. NO.:

Form C-105
page 2

3. The bidder certifies to the best of its knowledge and belief, that it and its principals:
- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offence in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated above; and
 - (d) Where the bidder is unable to certify to any of the statements in this certification, the bidder shall show an explanation below.

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

The undersigned is duly authorized by the bidder to make the foregoing statements to be filed with bids submitted on behalf of the bidder for contracts to be let by the Commonwealth Transportation Board.

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

By: _____
(Name of Firm) (Signature) Title (print)
STATE of _____ COUNTY (CITY) of _____
To-wit:

I _____, a Notary Public in and for the State and
County(City) aforesaid, hereby certify that this day _____
personally appeared before me and made oath that he is duly authorized to make the above statements
and that such statements are true and correct.

Subscribed and sworn to before me this _____ day of _____, 20 ____
My Commission expires _____

Notary Public

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
MINIMUM DBE REQUIREMENTS

PROJECT NO. _____

FHWA NO. _____

***** INSTRUCTIONS *****

THIS FORM CAN BE USED BY THE CONTRACTOR TO SUBMIT THE NAMES OF DBE FIRMS TO BE UTILIZED ON THE PROJECT. THE CONTRACTOR SHALL INDICATE THE DESCRIPTION OF THE CATEGORY (S, M, SP or H) AND THE TYPE OF WORK THAT EACH DBE WILL PERFORM AND THE ALLOWABLE CREDIT PER ITEM(S). ADDITIONAL SHEETS TO SHOW THE ALLOWABLE CREDIT PER ITEM MAY BE ATTACHED IF NECESSARY. **PLEASE NOTE:** THE AMOUNT OF ALLOWABLE CREDIT FOR A DBE SUPPLIER IS 60% OF THE TOTAL COST OF THE MATERIALS OR SUPPLIES OBTAINED AND 100% FOR A DBE MANUFACTURER OF THE MATERIALS AND SUPPLIES OBTAINED. A CONTRACTOR MAY COUNT 100% OF THE FEES PAID TO A DBE HAULER FOR THE DELIVERY OF MATERIALS AND SUPPLIES TO THE PROJECT SITE, BUT NOT FOR THE COST OF THE MATERIALS AND SUPPLIES THEMSELVES.

DBE REQUIREMENT _____ %

PERCENT ATTAINED BY BIDDER _____ %

NAMES(S) AND CERTIFICATION NO. OF DBE(S) TO BE USED	USED AS	TYPE OF WORK AND ITEM NO(S)	\$ AMOUNT OF ALLOWABLE CREDIT PER ITEM
	SUBCONTR. (S) MFG. (M) SUPPLIER (SP) HAULER (H)		
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
TOTAL			\$ _____

TOTAL CONTRACT VALUE \$ _____ x REQUIRED DBE _____ % = \$ _____

I/WE CERTIFY THAT THE PROPOSED DBE(S) SUBMITTED WILL BE USED ON THIS CONTRACT AS STATED HEREON AND ASSURE THAT DURING THE LIFE OF THE CONTRACT. I/WE WILL MEET OR EXCEED THE PARTICIPATION ESTABLISHED HEREON BY THE DEPARTMENT.

_____	BY	_____
BIDDER		SIGNATURE
_____	BY	_____
TITLE		DATE

**COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
CERTIFICATION OF BINDING AGREEMENT
WITH
DISADVANTAGED BUSINESS ENTERPRISE FIRMS**

Project No.:

Federal Project No.:

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

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

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

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

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

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

Prime Contractor _____

By: _____
Signature Title

Date: _____

First Tier
Subcontractor if
Applicable

By: _____
Signature Title

Date: _____

Second Tier
Subcontractor if
Applicable

By: _____
Signature Title

Date: _____

Third Tier
Subcontractor if
Applicable

By: _____
Signature Title

Date: _____

DBE Contractor

By: _____
Signature Title

Date: _____

—DIVISION I – GENERAL PROVISIONS—

——STANDARD 100 SERIES SPECIAL PROVISION COPIED NOTES (SPCNs)——

((c100ai03-0112)

GENERAL PROJECT REQUIREMENTS, SUPPLEMENTAL SPECIFICATIONS (SSs), SPECIAL PROVISIONS (SPs) AND SPECIAL PROVISION COPIED NOTES (SPCNs)

This project shall be constructed in accordance with: the plans; the *Virginia Department of Transportation Road and Bridge Specifications*, dated 2007; the *Virginia Department of Transportation Road and Bridge Standards*, dated 2008; the 2011 edition of the *Virginia Work Area Protection Manual*; the 2009 edition of the *MUTCD* and the current *Virginia Supplement to the MUTCD*; and the Supplemental Specifications, Special Provisions and Special Provision Copied Notes in this contract.

Special Provision Copied Notes in this contract are designated with "(SPCN)" after the date.

The information enclosed in parenthesis "()" at the left of each Special Provision Copied Note in this contract is file reference information for Department use only. The information in the upper left corner above the title of each Supplemental Specification and Special Provision in this contract is file reference information for Department use only.

The Department has identified the system of measurement to be used on this particular project as imperial. Any imperial unit of measure in this contract with an accompanying expression in a metric unit shall be referred to hereinafter as a "dual unit" measurement. Such a "dual unit" measurement is typically expressed first in the imperial unit followed immediately to the right by the metric unit in parenthesis "()" or brackets "[]" where parenthesis is used in the sentence to convey other information. Where a "dual unit" of measure appears in this project, only the imperial unit shall apply. The accompanying metric unit shown is not to be considered interchangeable and mathematically convertible to the imperial unit and shall not be used as an alternate or conflicting measurement.

12-1-11 (SPCN)

VDOT SUPPLEMENTAL SPECIFICATIONS (SSs), SPECIAL PROVISIONS (SPs) AND SPECIAL PROVISION COPIED NOTES (SPCNs)

Where Virginia Department of Transportation (VDOT) Supplemental Specifications, Special Provisions and Special Provision Copied Notes are used in this contract, the references therein to “the Specifications” shall refer to the *Virginia Department of Transportation Road and Bridge Specifications*, dated 2007 for both imperial and metric unit projects. References to the “Road and Bridge Standard(s)” shall refer to the *Virginia Department of Transportation Road and Bridge Standards*, dated 2008 for both imperial and metric unit projects. References to the “Virginia Work Area Protection Manual” shall refer to the 2011 edition of the *Virginia Work Area Protection Manual* for imperial and metric unit projects. References to the “MUTCD” shall refer to the 2009 edition of the *MUTCD* and the current *Virginia Supplement to the MUTCD* for imperial and metric unit projects.

Where the terms “Department”, “Engineer” and “Contract Engineer” appear in VDOT Supplemental Specifications, Special Provisions and Special Provision Copied Notes used in this contract and the VDOT publication(s) that each references, the authority identified shall be in accordance with the definitions in Section 101.02 of the *Virginia Department of Transportation Road and Bridge Specifications*, dated 2007. Authority identified otherwise for this particular project will be stated elsewhere in this contract.

VDOT Supplemental Specifications, Special Provisions and Special Provision Copied Notes used in this contract and the VDOT publication(s) that each reference are intended to be complementary to the each other. In case of a discrepancy, the order of priority stated in Section 105.12 of the *Virginia Department of Transportation Road and Bridge Specifications*, dated 2007 shall apply.

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

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

The system of measurement to be used in this project is stated elsewhere in this contract. VDOT Supplemental Specifications, Special Provisions and Special Provision Copied Notes containing imperial units of measurement with accompanying expressions in metric units shall be referred to hereinafter as “dual unit measurement” documents. Such a “dual unit measurement” is typically expressed first in the imperial unit followed immediately to the right by the metric unit in parenthesis “()” or brackets “[]” where parenthesis is used in the sentence to convey other information. Where a “dual unit measurement” appears in VDOT documents, the unit that applies shall be in accordance with the system of measurement as stated elsewhere in this contract. The unit shown that is not of the declared unit of measurement is not to be considered interchangeable and mathematically convertible to the declared unit and shall not be used as an alternate or conflicting measurement. Where VDOT Specifications are used for metric unit projects and only imperial units of measurement appear the document, the provision(s) in this contract for imperial unit to metric unit conversion shall apply.

12-1-11 (SPCN)

(c105hf1-0309)

SECTION 105.06 SUBCONTRACTING of the Specifications is amended to include the following:

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

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

12-19-08 (SPCN)

——SELECT USE 100 SERIES SPECIAL PROVISION COPIED NOTES (SPCNs)——

PERSONNEL REQUIREMENTS FOR WORK ZONE TRAFFIC CONTROL - Section 105 and 512 of the Specifications are amended as follows:

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

The Contractor shall provide at least one person on the project site during all work operations who is currently verified either by the Department in Intermediate Work Zone Traffic Control, or by the American Traffic Safety Services Association (ATSSA) as a Traffic Control Supervisor (TCS). This person must have the verification card with them while on the project site. This person shall be responsible for the oversight of work zone traffic control within the project limits in compliance with the contract requirements involving the plans, specifications, the VWAPM, and the MUTCD. This person's duties shall include the supervision of the installation, adjustment (if necessary), inspection, maintenance and removal when no longer required of all traffic control devices on the project.

If none of the Contractor's on-site personnel responsible for the supervision of such work has the required verification with them or if they have an outdated verification card showing they are not currently verified either by the Department in Intermediate Work Zone Traffic Control, or by the American Traffic Safety Services Association (ATSSA) as a Traffic Control Supervisor (TCS) all work on the project will be suspended by the Engineer.

The Contractor shall provide at least one person on site who is, at a minimum, verified by the Department in Basic Work Zone Traffic Control for each construction and/or maintenance operation that involves installing, maintaining, or removing work zone traffic control devices. This person shall be responsible for the placement, maintenance and removal of work zone traffic control devices.

In the event none of the Contractor's on-site personnel of any construction/maintenance operation has, at a minimum, the required verification by the Department in Basic Work Zone Traffic Control, that construction/maintenance operation will be suspended by the Engineer until that operation is appropriately staffed in accordance with the requirements herein.

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

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

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

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

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

6-11-09a (SPCN)

—FEDERAL DOCUMENTS—

General Decision Number: VA130014 01/04/2013 VA14

Superseded General Decision Number: VA20120014

State: Virginia

Construction Type: Highway

Counties: Gloucester, Hampton*, James*, Mathews, Newport
News* and York Counties in Virginia.

* INDEPENDENT CITIES

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).

Modification Number	Publication Date
0	01/04/2013

* SUVA2010-004 02/01/2011

Rates	Fringes
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CARPENTER (STRUCTURE).....\$ 17.43

CEMENT MASON/CONCRETE FINISHER...\$ 14.59

ELECTRICIAN.....\$ 29.24

FORM SETTER.....\$ 14.00

IRONWORKER, REINFORCING.....\$ 29.80

IRONWORKER, STRUCTURAL.....\$ 29.80

LABORER

Asphalt Raker.....\$ 14.94

Construction Laborer I

(Skilled Laborer).....\$ 14.32

Construction Worker II

(Laborer).....\$ 10.36

Flagger.....\$ 9.43

Guardrail Erector.....\$ 11.00

Landscape Worker.....\$ 11.08

Pipe Layer.....\$ 12.61

Power Tool Operator.....\$ 11.33

FILEDRIVERMAN.....\$ 23.41

POWER EQUIPMENT OPERATOR:

Asphalt Distributor.....\$ 17.75

Asphalt Paver.....	\$ 16.00
Backhoe.....	\$ 16.32
Bulldozer.....	\$ 16.00
Concrete Finish Machine.....	\$ 15.00
Concrete Paving Machine.....	\$ 15.69
Concrete Pump.....	\$ 16.12
Concrete Saw.....	\$ 14.00
Crane, Derrick, Dragline	
(1 cm & under).....	\$ 24.00
Crane, Derrick, Dragline	
(over 1 cm).....	\$ 28.92
Drill Operator.....	\$ 10.00
Excavator (Gradall).....	\$ 17.39
Front End Loader (2 cm &	
under).....	\$ 17.15
Front End Loader (over 2	
cm).....	\$ 16.80
Hydro Seeder.....	\$ 10.00
Mechanic.....	\$ 17.21
Motor Grader (Fine grade)...	\$ 18.00
Motor Grader (Rough grade)..	\$ 19.25
Pavement Marking.....	\$ 11.67
Pavement Planing.....	\$ 22.10
Pile Driver.....	\$ 17.00
Roller (Finish).....	\$ 16.00
Roller (Rough).....	\$ 14.14
Stabilizer.....	\$ 18.75
Tractor Operator (Crawlers).	\$ 10.00

Trenching Machine.....\$ 14.00

Truck Operator (Utility)....\$ 15.65

TRAFFIC SIGNAL INSTALLER.....\$ 21.64

TRUCK DRIVER

Truck Driver (Multi-Rear
Axle).....\$ 16.00

Truck Driver (Single Rear
Axle).....\$ 15.33

Truck Driver (Tandem Rear
Axle).....\$ 16.00

Truck Driver, Heavy Duty
(7 cy & under).....\$ 13.54

Truck Driver, Heavy Duty
(over 7 cy).....\$ 13.28

WELDER.....\$ 14.00

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

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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 union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective

bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

END OF GENERAL DECISION.

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

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

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

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

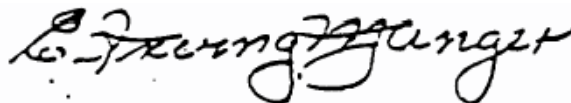
The contracting officer shall require that any class of laborers and mechanics which is not listed in the wage determination and which is to be employed under the contract, shall be classified or reclassified conformably to the wage determination, and a report of the action taken shall be sent by the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

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

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

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

By direction of the Secretary of Labor

A handwritten signature in cursive script, appearing to read "E. Irving Manger".

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

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

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FHWA-1273 – Revised May 1, 2012

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

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

ATTACHMENTS

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

I. GENERAL

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

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

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

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

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

II. NONDISCRIMINATION

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

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

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

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

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

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

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

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."
2. **EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.
 3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
 - a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.
 - b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
 - c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.
 - d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
 - e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.
 4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify

sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

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

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

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

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

6. Training and Promotion:

- a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.
- b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

- c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
 - d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.
7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:
- a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.
 - b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.
 - c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.
 - d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.
8. **Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.
9. **Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.
- a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

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

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

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

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

- a. The records kept by the contractor shall document the following:
 - (1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;
 - (2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and
 - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;
- b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

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

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

and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. Davis-Bacon and Related Act Provisions

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

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

1. Minimum wages

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

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its sub contractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

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

- (II) The classification is utilized in the area by the construction industry; and
 - (II) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
 - (3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
 - (4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
 - d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or a

subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

- a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- b.
 - (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.
 - (2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

- (I) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
 - (II) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
 - (III) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.
 - (4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at

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

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

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

b. Trainees (programs of the USDOL).

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

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

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

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at

less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
- d. Apprentices and Trainees (programs of the U.S. DOT).

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

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

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

1. **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
2. **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.
3. **Withholding for unpaid wages and liquidated damages.** The FHWA or the 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 any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.
4. **Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).
 - a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime

contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

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

VII. SAFETY: ACCIDENT PREVENTION

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

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety

of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).
3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

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

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

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

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

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

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

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

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

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

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

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

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

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

1. Instructions for Certification – First Tier Participants:

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

with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

* * * * *

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

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

falsification or destruction of records, making false statements, or receiving stolen property;

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

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

2. Instructions for Certification - Lower Tier Participants:

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

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

Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

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

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

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

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

- 1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
 - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and

the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

- b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE
EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals for female and minority participation, expressed in percentage terms of the Contractor's aggregate work force in each trade on all construction works in the covered area, are as follows:

Females- 6.9%

Minorities - See Attachment "A"

The goals are applicable to all the Contractor's construction work performed in the covered area, whether or not it is Federal or federally assisted. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications, set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established herein. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the 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 the award of any construction subcontract in excess of \$10,000 at any tier for construction works under this contract. The notification shall list the name, address and telephone number of the subcontractor, employer identification number, estimated dollar amount of the subcontract, estimated starting and completion dates of the subcontract and the geographical area in which the contract is to be performed.

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)**

1. As, used in this provision:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941;
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

- (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaska Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation.
 3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U. S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors and Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
 4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
 5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
 6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.
 7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, shall assign two or more women to each construction project. The Contractor shall specifically ensure that all foreman, superintendents and other on-site supervisory personnel are

aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites in such facilities.

- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off the street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union, or if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the union or unions which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or women sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources complied under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper or annual report; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents and General Foremen prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including in any news media advertisement that the Contractor is "An Equal Opportunity Employer" for minority and female, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Directs its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of Contractor's workforce.

- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
 - l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for such opportunities through appropriate training or other means.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are nonsegregated, except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
 9. Goals for women have been established. However, the Contractor is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner, that is even though the Contractor has achieved its goals for women, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.
 10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex or nation origin.
 11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
 12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
 13. The Contractor, in fulfilling its obligations under these specifications shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor

fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director will proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate and make known to the Department a responsible official as the EEO Officer to monitor all employment related activity, to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors will not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

ATTACHMENT A

<u>Economic Area</u>	<u>Goal (Percent)</u>
Virginia:	
021 Roanoke-Lynchburg, VA	
SM SA Counties:	
4640 Lynchburg, VA	19.3
VA Amherst; VA Appomattox; VA Campbell; VA Lynchburg	
6800 Roanoke, VA	10.2
VA Botetourt; VA Craig; VA Roanoke; VA Roanoke City; VA Salem	
Non-SMSA Counties	12.0
VA Alleghany; VA Augusta; VA Bath; VA Bedford; VA Bland; VA Carroll;	
V A Floyd; VA Franklin; VA Giles; VA Grayson; VA Henry; VA Highland;	
VA Montgomery; VA Nelson; VA Patrick; VA Pittsylvania; VA Pulaski;	
VA Rockbridge; VA Rockingham; VA Wythe; VA Bedford City; VA Buena	
Vista:	
VA Clifton Forge; VA Covington; VA Danville; VA Galax; VA Harrisonburg;	
VA Lexington; VA Martinsville; VA Radford; VA Staunton; VA Waynesboro;	
WV Pendleton.	
022 Richmond, VA	
SM SA Counties:	
6140 Petersburg - Colonial Heights - Hopewell, VA	30.6
VA Dinwiddie; VA Prince George; VA Colonial Heights; VA Hopewell;	
Petersburg.	
6760 Richmond, VA	24.9
VA Charles City; VA Chesterfield; VA Goochland, VA Hanover; VA	
Henrico; VA New Kent; VA Powhatan; VA Richmond.	
Non-SMSA Counties	27.9
VA Albemarle; VA Amelia; VA Brunswick; VA Buckingham, VA Caroline;	
VA Charlotte; VA Cumberland; VA Essex; VA Fluvanna; VA Greene; VA	
Greensville; VA Halifax; VA King and Queen; VA King William; VA	
Lancaster; VA Louisa; VA Lunenburg; VA Madison; VA Mecklenburg; VA	
Northumberland; VA Nottoway; VA Orange; VA Prince Edward; VA Richmond	
VA Sussex; VA Charlottesville; VA Emporia; VA South Boston	
023 Norfolk - Virginia Beach - Newport News VA:	
SM SA Counties:	
5680 Newport News- Hampton, VA	27.1

	VA Gloucester; VA James City; VA York; VA Hampton; VA Newport	
News;	VA Williamsburg.	
5720	Norfolk - Virginia Beach - Portsmouth, VA - NC	26.6
NC	Currituck; VA Chesapeake; VA Norfolk; VA Portsmouth; VA	
Su	ffolk; VA Virginia Beach.	
Non-SMSA	Counties	29.7
NC	Bertie; NC Camden; NC Chowan; NC Gates; NC Hertford;	
	NC Pasquotank; NC Perquimans; VA Isle of Wight; VA Matthews;	
VA	Middlesex; VA Southampton; VA Surry; VA Franklin.	
Washington, DC:		
	020 Washington, DC.	
SM	SA Counties:	
	8840 Washington, DC - MD - VA	28.0
	DC District of Columbia; MD Charles; MD Montgomery MD Prince	
	Georges; VA Arlington; VA Fairfax; VA Loudoun; VA Prince William	
VA	Alexandria; VA Fairfax City; VA Falls Church.	
Non-	SMSA Counties	25.2
	MD Calvert; MD Frederick; MD St. Marys; MD Washington; VA Clarke;	
VA	Culpeper; VA Fauquier; VA Frederick; VA King George; VA Page; VA	
Rappahann	ock; VA Shenandoah; VA Spotsylvania; VA Stafford; VA	
Warren:	VA Westmoreland; VA Fredericksburg; VA Winchester WV Berkeley;	
	WV Grant; WV Hampshire; WV Hardy; WV Jefferson; WV Morgan.	
Tennessee:		
	052 Johnson City - Kingsport - Bristol, TN - VA	
SM	SA Counties:	
3630	Johnson City - Kingsport -Bristol, TN-VA	2.6
TN	Carter; TN Hawkins; TN Sullivan; TN Washington; VA Scott: VA	
Was	hington; VA Bristol.	
Non-SMSA	Counties	3.2
	TN Greene; TN Johnson; VA Buchanan; VA Dickenson; VA Lee;	
VA	Russell; VA Smyth; VA Tazewell; VA Wise; VA Norton; WV McDowell;	
	WV Mercer.	
Maryland:		
	019 Baltimore MD	
Non-SMSA	Counties	23.6
	MD Caroline; MD Dorchester; MD Kent; MD Queen Annes; MD Somerset;	
MD	Talbot; MD Wicomico; MD Worchester; VA Ac comack; VA	
	Northampton.	

——STANDARD 100 SERIES SPs (SPECIAL PROVISIONS)——

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
PROJECT COMMUNICATION AND DECISION MAKING

January 3, 2005c
Reissued July 2008

I. DESCRIPTION

The intent of this provision is to establish procedures, processes and guidelines for making decisions and managing communications regarding work under contract on construction and maintenance projects. The information contained herein is not meant to be all inclusive but to serve as a minimal general framework for promoting efficient and effective communication and decision making at both the project and, if needed, executive administrative level. It is also not meant to override the decision-making processes or timeframes of specific contract requirements.

II. DEFINITIONS

For the purposes of this provision the following terms will apply and be defined as follows:

Submittals – Documents required by the contract that the Contractor must submit for the Department's review, acceptance or approval. These may include shop drawings, working drawings, material test reports, material certifications, project progress schedules, and schedule updates. The Contractor shall produce submittals as early as practicable when required by the contract so as not to delay review and determination of action.

Confirmation of verbal instructions (COVI) - Contractor requested written confirmation of agreements and instructions developed in negotiations with the Department concerning the Work under contract. Agreements must be able to be quantified using existing contract procedures and will, in the vast majority of cases, not impact contract time and cost. When time and/or cost are impacted, they must be clearly spelled out in the COVI.

Requests for information (RFI) – Requests generated by either the Contractor or the Department that the other party supplies information to better understand or clarify a certain aspect of the Work.

Requests for owner action (ROA) – Requests when the Contractor asks that the Department take certain action(s) the Contractor feels is required for proper completion of a portion of the Work or project completion.

Contract change requests (CCR) - Request where the Contractor asks the Department to make an equitable adjustment to the contract because of excusable and/or compensable events, instructions that have or have not been given or other work requiring time and/or cost beyond that specified or envisioned within the original contract.

Requests for contractor action (RCA) – Request generated by the Department where the Department asks the Contractor to take certain action that is in the best interests of the project and/or is required for proper completion of a portion of the Work or for project completion.

Contract change directives (CCD) – Directive by the Department which instructs the Contractor to perform work beyond that specified or envisioned in the original contract and which may specify instructions, time, and cost(s) to make an equitable adjustment to the original contract.

Responsible Person – The individual in the normal or escalated resolution process, for either the Contractor or the Department, having the direct authority, responsibility and accountability to formulate and respond to each category of information request.

III. PROCESS FOR DECISION MAKING

Project teams composed on responsible individuals directly involved in the administration, prosecution, and inspection of the Work from the Contractor and the Department shall define and agree upon the field decision-making process during the pre-construction conference. This information relative to the process should be written down and distributed to all parties of the process once it is established. Where there are responsibility, authority or personnel changes associated with this process such changes shall be distributed to all affected parties as quickly as practicable after they are effective so as not to delay or impede this process.

The process for making field decisions with respect to the Work detailed in the contract basically requires the following steps:

1. The Contractor and the Engineer agree on the decision-making process, the identity, authority and accountability of the individuals involved and on the cycle times for response for each category of decision.
2. The party requiring the information generates the appropriate request documents, and calls for a decision from the individual who is accountable for the particular facet of the Work under consideration within the agreed period.
3. The responding party has an internal decision-making process that supports the individual who is accountable and provides the information required within the agreed period for each category of request.
4. The party receiving the decision has an internal process for accepting the decision or referring it for further action within an agreed period of time.

The process also requires that clear and well-understood mechanisms be in place to log and track requests, document the age and status of outstanding requests and actions to be taken on requests that have not been answered within the agreed period.

Both the Department and the Contractor shall agree on the following:

- The documentation and perhaps format to be developed for each category of information requested,
- The name (as opposed to organizational position) of all individuals with the responsibility, authority and accountability to formulate and respond to each category of information requested. The District Administrator (DA) or Chief Executive Officer (CEO) of the Contractor may delegate the responsibility and authority for formulating and responding to requests, however, the accountability for meeting the established response time(s) remains with the District Administrator and CEO.
- The cycle times for each stage in the decision-making process,
- The performance measures to be used to manage the process,
- The action to be taken if cycle times are not achieved and information is not provided in a timely manner.

The following general guideline and timeframe matrix will apply to the various requests for action. Again, please note these guidelines are general in scope and may not apply to specific contract timeframes for response identified within the requirements of the Contract documents. In such cases, specific contract requirements for information shall apply.

PROCESS GUIDELINES FOR REQUESTS GENERATED BY THE CONTRACTOR

Process	Situation	Normal resolution process		Escalated process		Final resolution
		By	Within (calendar days)	By	Within	
Submittal	Where the Contractor requests the Department's review, acceptance or approval of shop drawings, materials data, test reports, project progress schedules, or other submittals required by standard Specifications or other contract language.	Department's Designated Project Manager	<ul style="list-style-type: none"> • Acknowledge: 3 days¹ • Accept or Return: 14 days • Final Determination/Approve: 30 days or as outlined in contract documents. 	DA or their designee*	7 days	Submit ROA or CCR
Confirmation of Verbal Instruction (COVI)	Resolving routine field issues, within the framework of the Contract, in negotiation with Owner field personnel.	Department's Appropriate field personnel	<ul style="list-style-type: none"> • Confirmation: 1 day² 	Submit RFI, ROA or CCR	7 days	(See process for RFI, ROA, or CCR)
Request for Information (RFI)	Requests the Department to supply information to better understand or clarify a certain aspect of the work.	Department's Designated Project Manager	<ul style="list-style-type: none"> • Action: 14 days (or appropriate Action Plan) 	DA or their designee*	7 days	Submit ROA or CCR
Request for Owner Action (ROA)	Requests that the Department take certain action the Contractor feels is required for proper completion of a portion of the Work or project completion.	Department's Designated Project Manager	<ul style="list-style-type: none"> • Acknowledge: 3 days¹ • Action: 14 days (or appropriate Action Plan) 	DA or their designee*	7 days	Submit CCR
Contract Change Request (CCR)	Requests the Department to make an equitable adjustment to the contract because of excusable and/or compensable events, instructions that have or have not been given or other work requiring time and/or cost beyond that specified or envisioned within the original contract.	Department's Designated Project Manager	<ul style="list-style-type: none"> • Acknowledge: 3 days¹ • Action: 30 days (45 days if federal oversight project) 	DA or their designee*	7 days	Established dispute resolution and claims process

¹ Process initiated on the last business day of a week shall be acknowledged before 5 pm on the next VDOT business day.

² The absence of a written confirmation from the Owner to a Contractor's written request for confirmation of a verbal instruction shall constitute confirmation of the verbal instruction.

PROCESS GUIDELINES FOR REQUESTS GENERATED BY THE OWNER

Process	Situation	Normal resolution process		Escalated process		Final resolution
		By	Within (calendar days)	By	Within	
1. RFI	Requests the Contractor to supply information to better understand or clarify a certain aspect of the work. (RFI)	Contractor's Project Superintendent	<ul style="list-style-type: none"> Action: 14 days (or appropriate written Action Plan) 	Contractor's Project Manager	7 days	Submit RCA or CCD
2. RCA	Requesting the Contractor take certain action(s) that is in the best interests of the project and/or is required for proper completion of a portion of the work or for project completion. (RCA)	Contractor's Project Superintendent	<ul style="list-style-type: none"> Response or Action to safety and environmental issues: 1 day Otherwise acknowledge: 3 days¹ Action: 14 days (or appropriate Action Plan) 	Contractor's Project Manager	7 days	Submit CCD
3. CCD	Instructs the Contractor to perform work beyond that specified or envisioned in the original contract and undertakes action(s) to make an equitable adjustment to the contract. (CCD)	Contractor's Project Superintendent	<ul style="list-style-type: none"> Acknowledge: 3 days¹ Action: 30 days 	CEO or their designee**	7 days	Established dispute resolution and termination process

¹ Process initiated on the last business day of a week shall be acknowledged before 5 p.m. on next project business day.

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
USE OF DOMESTIC MATERIAL

February 26, 2009

SECTION 102.05 PREPARATION OF BID of the Specifications is amended to include the following:

In accordance with the provisions of Section 635.410(b) of Title 23 CFR, hereinafter referred to as "Buy America", except as otherwise specified, all iron and steel products (including miscellaneous steel items such as fasteners, nuts, bolts and washers) to be permanently incorporated for use on federal aid projects shall be produced in the United States of America regardless of the percentage they exist in the manufactured product or final form they take. Therefore, "Domestically produced in the United States of America" means all manufacturing processes must occur in the United States of America, to mean, in one of the 50 States, the District of Columbia, Puerto Rico or in the territories and possessions of the United States. Manufacturing processes are defined as any process which alters or modifies the chemical content, physical size or shape or final finish of iron or steel material) such as rolling, extruding, bending, machining, fabrication, grinding, drilling, finishing, or coating whereby a raw material or a reduced iron ore material is changed, altered or transformed into a steel or iron item or product which, because of the process, is different from the original material. For the purposes of satisfying this requirement "coating" is defined as the application of epoxy, galvanizing, painting or any other such process that protects or enhances the value of the material. Materials used in the coating process need not be domestic materials.

For the purposes herein the manufacturing process is considered complete when the resultant product is ready for use as an item in the project (e.g. fencing, posts, girders, pipe, manhole covers, etc.) or is incorporated as a component of a more complex product by means of further manufacturing. Final assembly of a product may occur outside of the United States of America provided no further manufacturing process takes place.

Raw materials such as iron ore, pig iron, processed, pelletized and reduced iron ore, waste products (including scrap, that is, steel or iron no longer useful in its present form from old automobiles, machinery, pipe, railroad rail, or the like and steel trimmings from mills or product manufacturing) and other raw materials used in the production of steel and/or iron products may, however, be imported. Extracting, handling, or crushing the raw materials which are inherent to the transporting the materials for later use in the manufacturing process are exempt from Buy America. The use of foreign source steel or iron billet is not acceptable under the provisions of Buy America. For the purposes of this provision all steel or iron material not meeting the criteria as domestically produced in the United States of America will be considered as "foreign" material. All iron and steel items will be classified hereinafter as "domestic" or "foreign", identified by and subject to the provisions herein.

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

Buy America provisions do not apply to iron or steel products used temporarily in the construction of a project such as temporary sheet piling, temporary bridges, steel scaffolding, falsework or such temporary material or product or material that remains in place for the Contractor's convenience.

Section 635.410(b) of Title 23 CFR permits a minimal amount of steel or iron material to be incorporated in the permanent work on a federal-aid contract. The cost of such materials or products must not exceed one-tenth of one percent of the contract amount or \$2500, whichever is greater. The cost of the foreign iron or steel material is defined as its monetary value delivered to the job site and supported by invoices or bill of sale to the Contractor. This delivered to site cost must include transportation, assembly, installation and testing.

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

Waivers:

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

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

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

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

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

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

Alternative Bidding Procedures:

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

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

In the event the contract is awarded to the bidder furnishing foreign iron and/or steel materials or items the provision for price adjustment of steel items will be permitted, however, price fluctuations shall use the U.S. index as stated in the Special Provision for Price Adjustment For Steel. The Contractor must

indicate which corresponding eligible steel items he chooses price adjustment to apply. In the event the contract is awarded to a bidder furnishing foreign iron and/or steel items and during the life of that contract the Contractor discovers he can not furnish foreign iron and/or steel material as originally anticipated and agreed upon, he shall be responsible to honor the total bid price and furnish such iron and/or steel materials meeting the contract requirements from other sources as necessary to complete the work.

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

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

Certification of Compliance:

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

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

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
VOLATILE ORGANIC COMPOUND (VOC) EMISSIONS CONTROL AREAS

August 12, 2010

VOC Emission Control Area - The Contractor is advised that this project may be located in a volatile organic compound (VOC) emissions control area identified in the State Air Control Board Regulations (9 VAC 5-20-206) and in Table 1 below. Therefore, the following limitations may apply:

- Open burning is prohibited during the months of May, June, July, August, and September in VOC Emissions Control areas
- Cutback asphalt is prohibited April through October except when use or application as a penetrating prime coat or tack is necessary in VOC Emissions Control areas

Table 1. Virginia Department of Environmental Quality Volatile Organic Compound (VOC) Emissions Control Areas*

VOC Emissions Control Area	VDOT District	Jurisdiction
Northern Virginia	NOVA	Alexandria City Arlington County Fairfax County Fairfax City Falls Church City Loudoun County Manassas City Manassas Park City Prince William County
Northern Virginia	Fredericksburg	Stafford County
Fredericksburg	Fredericksburg	Spotsylvania County Fredericksburg City
Hampton Roads	Fredericksburg	Gloucester County
Hampton Roads	Hampton Roads	Chesapeake City Hampton City Isle of Wight County James City County Newport News City Norfolk City Poquoson City Portsmouth City Suffolk City Virginia Beach City Williamsburg City York County

Richmond	Richmond	Charles City County Chesterfield County Colonial Heights City Hanover County Henrico County Hopewell City Petersburg City Prince George County Richmond City
Western Virginia	Staunton	Frederick County Winchester City
Western Virginia	Salem	Roanoke County Botetourt County Roanoke City Salem City

* Regulations for the Control and Abatement of Air Pollution (9 VAC 5-20-206)

See the Virginia Code 9 VAC 5-40, Article 39 (Emission Standards for Asphalt Paving Operations) and 9 VAC 5-130 (Regulation for Open Burning) for further clarification. In addition to the above requirements, the Contractor's attention is directed to the requirements of Section 107.16 of the Specifications, because other air pollution requirements may also apply.

VIRGINIA DEPARTMENT OF TRANSPORTATION

**STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL PERMIT FOR THE
DISCHARGE OF STORMWATER FROM CONSTRUCTION ACTIVITIES CONTRACTOR AND
SUBCONTRACTOR CERTIFICATION STATEMENT**

Order No.: _____ Project Number: _____

Route: _____ Contract ID. #: _____

I certify under penalty of law that I understand the terms and conditions of the project contract, plans, permits, specifications and standards related to the erosion and sediment control, stormwater management and stormwater pollution prevention plan requirements for the affected activities associated with this project, the Virginia Stormwater Management Program (VSMP), and the General Permit for the Discharge of Stormwater from Construction Activities, if applicable to this project, issued by the Virginia Department of Conservation and Recreation. The VSMP Permit authorizes the storm water discharges associated with the construction activities from the project site identified and described in the bid documents and subsequent contract including any off-site support activities required for the complete fulfillment of the work therein.

Signature: _____

Name: _____

Title: _____

Contracting Firm: _____

Address: _____

Phone Number: _____

Address/Description of Site: _____
(Include off-site areas) _____

Certified on this date: _____

(Note: This form must be returned with performance and payment bonds)

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
SECTION 107.15

December 10, 2010

Section 107.15 of the Specifications is replaced by the following:

Section 107.15—Use of Disadvantaged Business Enterprises (DBEs)

A. Disadvantaged Business Enterprise (DBE) Program Requirements

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

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

In accordance with 49 CFR Part 26 and VDOT's DBE Program requirements, the Contractor, for itself and for its sub contractors and suppliers, whether certified DBE firms or not, shall commit to complying fully with the auditing, record keeping, confidentiality, cooperation, and anti-intimidation or retaliation provisions contained in those federal and state DBE Program regulations. By bidding on this contract, and by accepting and executing this contract, the Contractor agrees to assume these contractual obligations and to bind the Contractor's subcontractors contractually to the same at the Contractor's expense.

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

All administrative remedies noted in this provision are automatic unless the Contractor exercises the right of appeal within the required timeframe(s) specified herein. Appeal requirements, processes, and procedures shall be in accordance with guidelines stated herein and current at the time of the proceedings. Where applicable, the Department will notify the Contractor of any changes to the appeal requirements, processes, and procedures after receiving notification of the Contractor's desire to appeal.

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

B. DBE Certification

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

C. Bank Services

The Contractor and each subcontractor are encouraged to use the services of banks owned and controlled by socially and economically disadvantaged individuals. Such banking services and the fees charged for services typically will not be eligible for DBE Program contract goal credit. Such information is available from the VDOT's Internet Civil Rights Division website: <http://insidevdot/C7/Civil%20Rights/default.aspx>

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

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

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

work that it proposes to submit; it has made good faith efforts to seek out and consider DBEs as potential subcontractors. The bidder shall contact DBEs to solicit their interest, capability, and prices in sufficient time to allow them to respond effectively, and shall retain on file proper documentation to substantiate its good faith efforts. Award of the contract will be conditioned upon meeting these and other listed requirements of 49 CFR Part 26.53 and the contract documents.

6. Once awarded the contract, the Contractor shall make good faith efforts to utilize DBE firms to perform work designated to be performed by DBEs at or above the amount or percentage of the dollar value specified in the bidding documents. Further, the Contractor understands it shall not unilaterally terminate, substitute for, or replace any DBE firm that was designated in the executed contract in whole or in part with another DBE, any non-DBE firm, or with the Contractor's own forces or those of an affiliate of the Contractor without the prior written consent of VDOT as set out within the requirements of this provision.
7. Once awarded the contract, the Contractor shall designate and make known to the Department a liaison officer who is assigned the responsibility of administering and promoting an active and inclusive DBE program as required by 49 CFR Part 26 for DBEs. The designation and identity of this officer need be submitted only once by the Contractor during any twelve (12) month period at the preconstruction conference for the first contract the Contractor has been awarded during that reporting period. The Department will post such information for informational and administrative purposes at VDOT's Internet Civil Rights Division website.
8. Once awarded the contract, the Contractor shall comply fully with all regulatory and contractual requirements of the USDOT DBE Program, and that each DBE firm participating in the contract shall fully perform the designated work items with the DBE's own forces and equipment under the DBE's direct supervision, control, and management. Where a contract exists and where the Contractor, DBE firm, or any other firm retained by the Contractor has failed to comply with federal or VDOT DBE Program regulations and/or their requirements on that contract, VDOT has the authority and discretion to determine the extent to which the DBE contract regulations and/or requirements have not been met, and will assess against the Contractor any remedies available at law or provided in the contract in the event of such a contract breach.
9. In the event a bond surety assumes the completion of work, if for any reason VDOT has terminated the prime Contractor, the surety shall be obligated to meet the same DBE contract terms and requirements as were required of the original prime Contractor in accordance with the requirements of this specification.

E. Disqualification of Bidder

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

F. Bidding Procedures

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

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

Form C-111 may be submitted electronically or may be faxed to the Department, but in no case shall the bidder's Form C-111 be received later than 10:00 a.m. the next business day after the time stated in the bid proposal for the receipt of bids. Form C-48 must be received within ten (10) business days after the bid opening.

If, at the time of submitting its bid, the bidder knowingly cannot meet or exceed the required DBE contract goal, it shall submit Form C-111 exhibiting the DBE participation it commits to attain as a part of its bid documents. The bidder shall then submit Form C-49, DBE Good Faith Efforts Documentation, within two (2) business days after the bid opening.

The lowest responsive and responsible bidder must submit its properly executed Form C-112, Certification of Binding Agreement, within three (3) business days after the bids are received. DBEs bidding as prime contractors are not required to submit Form C-112 unless they are utilizing other DBEs as subcontractors.

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

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

Instructions for submitting Form C-111 can be obtained from the VDOT website at:
http://www.viriniadot.org/business/resources/const/Exp_DBE_Commitments.pdf

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

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

3. **Good Faith Efforts Described:** In order to award a contract to a bidder that has failed to meet DBE contract goal requirements, VDOT will determine if the bidder's efforts were adequate good faith efforts, and if given all relevant circumstances, those efforts were made actively and aggressively to meet the DBE requirements. Efforts to obtain DBE participation are not good faith efforts if they could not reasonably be expected to produce a level of DBE participation sufficient to meet the DBE Program and contract goal requirements.

Good faith efforts may be determined through use of the following list of the types of actions the bidder may make to obtain DBE participation. This is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts of similar intent may be relevant in appropriate cases:

- (a) Soliciting through reasonable and available means, such as but not limited to, attendance at pre-bid meetings, advertising, and written notices to DBEs who have the capability to perform the work of the contract. Examples include: advertising in at least one daily/weekly/monthly newspaper of general circulation, as applicable; phone contact with a completely documented telephone log, including the date and time called, contact person, or voice mail status; and internet contacts with supporting documentation, including dates advertised. The bidder shall solicit this interest no less than five (5) business days before the bids are due so that the solicited DBEs have enough time to reasonably respond to the solicitation. The bidder shall determine with certainty if the DBEs are interested by taking reasonable steps to follow up initial solicitations as evidenced by documenting such efforts as requested on Form C-49, DBE Good Faith Efforts Documentation.
- (b) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to completely perform all portions of this work in its entirety or use its own forces;
- (c) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner, which will assist the DBEs in responding to a solicitation;
- (d) Negotiating for participation in good faith with interested DBEs;
 - 1. Evidence of such negotiation shall include the names, addresses, and telephone numbers of DBEs that were considered; dates DBEs were contacted; a description of the information provided regarding the plans, specifications, and requirements of the contract for the work selected for subcontracting; and, if insufficient DBE participation seems likely, evidence as to why additional agreements could not be reached for DBEs to perform the work;
 - 2. A bidder using good business judgment should consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and should take a firm's price, qualifications, and capabilities, as well as contract goals, into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not sufficient reason for a bidder's failure to meet the contract goal for DBE participation, as long as such costs are reasonable and comparable to costs customarily appropriate to the type of work under consideration. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make diligent good faith efforts. Bidders are not, however, required to accept higher quotes from DBEs if the price difference can be shown by the bidder to be excessive, unreasonable, or greater than would normally be expected by industry standards;
- (e) A bidder cannot reject a DBE as being unqualified without sound reasons based on a thorough investigation of the DBE's capabilities. The DBE's standing within its industry, membership in specific groups, organizations, associations, and political or social affiliations, and union vs. non-union employee status are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal for DBE participation;
- (f) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by VDOT or by the bidder/Contractor;

- (g) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services subject to the restrictions contained in these provisions;
- (h) Effectively using the services of appropriate personnel from VDOT and from DMBE; available minority/women community or minority organizations; contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and utilization of qualified DBEs.

G. Documentation and Administrative Reconsideration of Good Faith Efforts

During Bidding: As described in the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision, the bidder must provide Form C-49, DBE Good Faith Efforts Documentation, of its efforts made to meet the DBE contract goal as proposed by VDOT within the time frame specified in this provision. The means of transmittal and the risk for timely receipt of this information shall be the responsibility of the bidder. The bidder shall attach additional pages to the certification, if necessary, in order to fully detail specific good faith efforts made to obtain the DBE firms participation in the proposed contract work.

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

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

Where the Department upon initial review of the bid results determines the apparent low bidder has failed or appears to have failed to meet the requirements of the **Contract Goal, Good Faith Efforts Specified** section of this Special Provision and has failed to adequately document that it made a good faith effort to achieve sufficient DBE participation as specified in the bid proposal, that firm upon notification of the Department's initial determination will be offered the opportunity for administrative reconsideration before VDOT rejects that bid as non-responsive. The bidder shall address such request for reconsideration in writing to the Contract Engineer within five (5) business days of receipt of notification by the Department and shall be given the opportunity to discuss the issue and present its evidence in person to the Administrative Reconsideration Panel. The Administrative Reconsideration Panel will be made up of VDOT Division Administrators or their designees, none of who took part in the initial determination that the bidder failed to make the goal or make adequate good faith efforts to do so. After reconsideration, VDOT shall notify the bidder in writing of its decision and explain the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so.

If, after reconsideration, the Department determines the bidder has failed to meet the requirements of the contract goal and has failed to make adequate good faith efforts to achieve the level of DBE participation as specified in the bid proposal, the bidder's bid will be rejected.

If sufficient documented evidence is presented to demonstrate that the apparent low bidder made reasonable good faith efforts, the Department will award the contract and reduce the DBE requirement to the actual commitment identified by the lowest successful bidder at the time of its bid. The Contractor is still encouraged to seek additional DBE participation during the life of the contract.

However, such action will not relieve the Contractor of its responsibility for complying with the reduced DBE requirement during the life of the contract or any administrative sanctions as may be appropriate.

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

If the Contractor fails to conform to the schedule of DBE participation as shown on the progress schedule, or at any point at which it is clearly evident that the remaining dollar value of allowable credit for performing work is insufficient to obtain the scheduled participation, and the Contractor has not taken the preceding actions, the Contractor and any aforementioned affiliates may be subject to disallowance of DBE credit until such time as conformance with the schedule of DBE participation is achieved.

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

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

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

H. DBE Participation for Contract Goal Credit

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

1. Cost-plus subcontracts will not be considered to be in accordance with normal industry practice and will not normally be allowed for credit.
2. The applicable percentage of the total dollar value of the contract or subcontract awarded to the DBE will be counted toward meeting the contract goal for DBE participation in accordance with the **DBE Program-Related Certifications Made by Bidders\Contractors** section of this Special Provision for the value of the work, goods, or services that are actually performed or provided by the DBE firm itself or subcontracted by the DBE to other DBE firms.
3. When a DBE performs work as a participant in a joint venture with a non-DBE firm, the Contractor may count toward the DBE goal only that portion of the total dollar value of the contract equal to the distinctly defined portion of the contract work that the DBE has performed with the DBE's own forces or in accordance with the provisions of this Section. The Department shall be contacted in advance regarding any joint venture involving both a DBE firm and a non-DBE firm to coordinate Department review and approval of the joint venture's organizational structure and proposed operation where the Contractor seeks to claim the DBE's credit toward the DBE contract goal.
4. When a DBE subcontracts part of the work of the contract to another firm, the value of that subcontracted work may be counted toward the DBE contract goal only if the DBE's subcontractor at a lower tier is a certified DBE. Work that a DBE subcontracts to either a non-DBE firm or to a non-certified DBE firm will not count toward the DBE contract goal. The cost of supplies and equipment a DBE subcontractor purchases or leases from the prime Contractor or the prime's affiliated firms will not count toward the contract goal for DBE participation.
5. The Contractor may count expenditures to a DBE subcontractor toward the DBE contract goal only if the DBE performs a Commercially Useful Function (CUF) on that contract.
6. A Contractor may not count the participation of a DBE subcontractor toward the Contractor's final compliance with the DBE contract goal obligations until the amount being counted has actually been paid to the DBE. A Contractor may count sixty (60) percent of its expenditures actually paid for materials and supplies obtained from a DBE certified as a regular dealer, and one hundred (100) percent of such expenditures actually paid for materials and supplies obtained from a certified DBE manufacturer.
 - (a) For the purposes of this Special Provision, a regular dealer is defined as a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment required and used under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the DBE firm shall be an established business that regularly engages, as its principal business and under its own name, in the purchase and sale or lease of the products or equipment in question. Packers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions will not be considered regular dealers.
 - (b) A DBE firm may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business where it keeps such items in stock if the DBE both owns and operates distribution equipment for the products it sells and provides for the contract work. Any supplementation of a regular dealer's own distribution equipment shall be by a long-

term lease agreement and not on an *ad hoc* or contract-by-contract basis to be eligible for credit to meet the DBE contract goal.

- (c) If a DBE regular dealer is used for DBE contract goal credit, no additional credit will be given for hauling or delivery to the project site goods or materials sold by that DBE regular dealer. Those delivery costs shall be deemed included in the price charged for the goods or materials by the DBE regular dealer, who shall be responsible for their distribution.
- (d) For the purposes of this Special Provision, a manufacturer will be defined as a firm that operates or maintains a factory or establishment that produces on the premises the materials, supplies, articles, or equipment required under the contract and of the general character described by the project specifications. A manufacturer shall include firms that produce finished goods or products from raw or unfinished material, or purchase and substantially alter goods and materials to make them suitable for construction use before reselling them.
- (g) A Contractor may count toward the DBE contract goal the following expenditures to DBE firms that are not regular dealers or manufacturers for DBE program purposes:
 - 1. The entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant or managerial services, or for providing bonds or insurance specifically required for the performance of the federal-aid contract, if the fee is reasonable and not excessive or greater than would normally be expected by industry standards for the same or similar services.
 - 2. The entire amount of that portion of the construction contract that is performed by the DBE's own forces and equipment under the DBE's supervision. This includes the cost of supplies and materials ordered and paid for by the DBE for contract work, including supplies purchased or equipment leased by the DBE, except supplies and equipment a DBE subcontractor purchases or leases from the prime Contractor or its affiliates.
- (h) A Contractor may count toward the DBE contract goal one hundred (100) percent of the fees paid to a DBE trucker or hauler for the delivery of material and supplies required on the project job site, but not for the cost of those materials or supplies themselves, provided that the trucking or hauling fee is determined by VDOT to be reasonable, as compared with fees customarily charged by non-DBE firms for similar services. A Contractor shall not count costs for the removal or relocation of excess material from or on the job site when the DBE trucking company is not the manufacturer of or a regular dealer in those materials and supplies. The DBE trucking firm shall also perform a Commercially Useful Function (CUF) on the project and not operate merely as a pass through for the purposes of gaining credit toward the DBE contract goal. Prior to submitting a bid, the Contractor shall determine, or contact the VDOT Civil Rights Division or its district Offices for assistance in determining, whether a DBE trucking firm will meet the criteria for performing a CUF on the project. See section on **Miscellaneous DBE Program Requirements; Factors used to Determine if a DBE Trucking Firm is Performing a CUF**.
- (i) The Contractor will receive DBE contract goal credit for the fees or commissions charged by and paid to a DBE broker who arranges or expedites sales, leases, or other project work or service arrangements provided that those fees are determined by VDOT to be reasonable and not excessive as compared with fees customarily charged by non-DBE firms for similar services. For the purposes of this Special Provision, a broker is defined as a person or firm that regularly engages in arranging for delivery of material, supplies, and equipment, or regularly arranges for the providing of project services as a course of routine business but does not own or operate the delivery

equipment necessary to transport materials, supplies, or equipment to or from a job site.

I. Performing a Commercially Useful Function (CUF)

No credit toward the DBE contract goal will be allowed for contract payments or expenditures to a DBE firm if that DBE firm does not perform a CUF on that contract. A DBE performs a CUF when the DBE is solely responsible for execution of a distinct element of the contract work and the DBE actually performs, manages, and supervises the work involved with the firm's own forces or in accordance with the provisions of the **DBE Participation for Contract Goal Credit** section of this Special Provision. To perform a CUF the DBE alone shall be responsible and bear the risk for the material and supplies used on the contract, selecting a supplier or dealer from those available, negotiating price, determining quality and quantity, ordering the material and supplies, installing those materials with the DBE's own forces and equipment, and paying for those materials and supplies. The amount the DBE firm is to be paid under the contract shall be commensurate with the work the DBE actually performs and the DBE credit claimed for the DBE's performance.

Monitoring CUF Performance: It shall be the Contractor's responsibility to ensure that all DBE firms selected for subcontract work on the contract, for which he seeks to claim credit toward the contract goal, perform a CUF. Further, the Contractor is responsible for and shall ensure that each DBE firm fully performs the DBE's designated tasks with the DBE's own forces and equipment under the DBE's own direct supervision and management or in accordance with the provisions of the **DBE Participation for Contract Goal Credit** section of this Special Provision. For the purposes of this provision the DBE's equipment will mean either equipment directly owned by the DBE as evidenced by title, bill of sale or other such documentation, or leased by the DBE, and over which the DBE has control as evidenced by the leasing agreement from a firm not owned in whole or part by the prime Contractor or an affiliate of the Contractor under this contract.

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

DBEs Must Perform a Useful and Necessary Role in Contract Completion: A DBE does not perform a commercially useful function if the DBE's role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.

DBEs Must Perform The Contract Work With Their Own Workforces: If a DBE does not perform and exercise responsibility for at least thirty (30) percent of the total cost of the DBE's contract with the DBE's own workforce, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, VDOT will presume that the DBE is not performing a CUF and such participation will not be counted toward the contract goal.

VDOT Makes Final Determination On Whether a CUF Is Performed: VDOT has the final authority to determine whether a DBE firm has performed a CUF on a federal-aid contract. To determine whether a DBE is performing or has performed a CUF, VDOT will evaluate the amount of work subcontracted by that DBE firm or performed by other firms and the extent of the involvement of other firms' forces and equipment. Any DBE work performed by the Contractor or by employees or equipment of the Contractor shall be subject to disallowance under the DBE Program, unless the independent validity and need for such an arrangement and work is demonstrated.

J. Verification of DBE Participation and Imposed Damages

Within fourteen days after contract execution, the Contractor shall submit to the Responsible Engineer, with a copy to the District Civil Rights Office (DCRO), a fully executed subcontract agreement for each DBE used to claim credit in accordance with the requirements stated on Form C-112. The subcontract agreement shall be executed by both parties stating the work to be performed, the details or specifics concerning such work, and the price which will be paid to the DBE subcontractor. Because of the commercial damage that the Contractor and its DBE subcontractor could suffer if their subcontract pricing, terms, and conditions were known to competitors, the Department staff will treat subcontract agreements as proprietary Contractor trade secrets with regard to Freedom of Information Act requests. In lieu of subcontract agreements, purchase orders may be submitted for haulers, suppliers, and manufacturers. These too, will be treated confidentially and protected. Such purchase orders must contain, as a minimum, the following information: authorized signatures of both parties; description of the scope of work to include contract item numbers, quantities, and prices; and required federal contract provisions.

The Contractor shall also furnish, and shall require each subcontractor to furnish, information relative to all DBE involvement on the project for each quarter during the life of the contract in which participation occurs and verification is available. The information shall be indicated on Form C-63, DBE and SWAM Payment Compliance Report. The department reserves the right to request proof of payment via copies of cancelled checks with appropriate identifying notations. Failure to provide Form C-63 to the District Civil Rights Office (DCRO) within five (5) business days after the reporting period may result in delay of approval of the Contractor's monthly progress estimate for payment. The names and certification numbers of DBE firms provided by the Contractor on the various forms indicated in this Special Provision shall be exactly as shown on the DMBE's or MWAA's latest list of certified DBEs. Signatures on all forms indicated herein shall be those of authorized representatives of the Contractor as shown on the Prequalification Application, Form C-32 or the Prequalification/Certification Renewal Application, Form C-32A, or authorized by letter from the Contractor. If DBE firms are used which have not been previously documented with the Contractor's bid and for which the Contractor now desires to claim credit toward the project goal, the Contractor shall be responsible for submitting necessary documentation in accordance with the procedures stipulated in this Special Provision to cover such work prior to the DBE beginning work.

Form C-63 can be obtained from the VDOT website at: <http://vdotforms.vdot.virginia.gov/>

The Contractor shall submit to the Responsible Engineer its progress schedule with a copy to the DCRO, as required by Section 108.03 of the Specifications or other such specific contract scheduling specification that may include contractual milestones, i.e., monthly or VDOT requested updates. The Contractor shall include a narrative of applicable DBE activities relative to work activities of the Contractor's progress schedule, including the approximate start times and durations of all DBE participation to be claimed for credit that shall result in full achievement of the DBE goal required in the contract.

On contracts awarded on the basis of good faith efforts, narratives or other agreeable format of schedule information requirements and subsequent progress determination shall be based on the commitment information shown on the latest Form C-111 as compared with the appropriate Form C-63.

Prior to beginning any major component or quarter of the work, as applicable, in which DBE work is to be performed, the Contractor shall furnish a revised Form C-111 showing the name(s) and certification number(s) of any current DBEs not previously submitted who will perform the work during that major component or quarter for which the Contractor seeks to claim credit toward the contract DBE goal. The Contractor shall obtain the prior approval of the Department for any assistance it may provide to the DBE beyond its existing resources in executing its commitment to the work in accordance with the requirements listed in the **Good Faith Efforts Described** section of this Special Provision. If the Contractor is aware of any

assistance beyond a DBE's existing resources that the Contractor, or another subcontractor, may be contemplating or may deem necessary and that have not been previously approved, the Contractor shall submit a new or revised narrative statement for VDOT's approval prior to assistance being rendered.

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

K. Documentation Required for Semi-final Payment

On those projects nearing completion, the Contractor must submit Form C-63 marked "Semi-Final" within twenty (20) days after the submission of the last regular monthly progress estimate to the DCRO. The form must include each DBE used on the contract work and the work performed by each DBE. The form shall include the actual dollar amount paid to each DBE for the accepted creditable work on the contract. The form shall be certified under penalty of perjury, or other applicable law, to be accurate and complete. VDOT will use this certification and other information available to determine applicable DBE credit allowed to date by VDOT and the extent to which the DBEs were fully paid for that work. The Contractor shall acknowledge by the act of filing the form that the information is supplied to obtain payment regarding a federal participation contract. A letter of certification, signed by both the prime Contractor and appropriate DBEs, will accompany the form, indicating the amount, including any retainage, if present, that remains to be paid to the DBE(s).

L. Documentation Required for Final Payment

On those projects that are complete, the Contractor shall submit a final Form C-63 marked "Final" to the DCRO, within thirty (30) days of the final estimate. The form must include each DBE used on the contract and the work performed by each DBE. The form shall include the actual dollar amount paid to each DBE for the creditable work on the contract. VDOT will use this form and other information available to determine if the Contractor and DBEs have satisfied the DBE contract goal percentage specified in the contract and the extent to which credit was allowed. The Contractor shall acknowledge by the act of signing and filing the form that the information is supplied to obtain payment regarding a federal participation contract.

M. Prompt Payment Requirements

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

For purposes of this Special Provision, a subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished, documented, and accepted as required by the contract documents by VDOT. When VDOT has made partial acceptance of a portion of the prime contract, the Department will consider the work of any subcontractor covered by that partial acceptance to be satisfactorily completed. Payment will be made in accordance with the requirements of Section 107.01, Section 109.08, and Section 109.09 of the Specifications.

Upon VDOT's payment of the subcontractor's portion of the work as shown on the monthly progress estimate and the receipt of payment by the Contractor for such work, the Contractor shall make compensation in full to the subcontractor for that portion of the work satisfactorily completed and accepted by the Department. For the purposes of this Special Provision, payment of the subcontractor's portion of the work shall mean the Contractor has issued

payment in full, less a greed upon retainage, if any, to the subcontractor for that portion of the subcontractor's work that VDOT paid to the Contractor on the monthly progress estimate.

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

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

By bidding on this contract, and by accepting and executing this contract, the Contractor agrees to assume these contractual obligations, and to bind the Contractor's subcontractors contractually to those prompt payment requirements.

Nothing contained herein shall preclude the Contractor from withholding payment to the subcontractor in accordance with the terms of the subcontract in order to protect the Contractor from loss or cost of damage due to a breach of agreement by the subcontractor.

N. Miscellaneous DBE Program Requirements

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

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

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

The Contractor, as aforementioned in **DBE Program-Related Certifications Made by Bidders/Contractors**, shall notify VDOT in writing before terminating and/or replacing the DBE that was committed as a condition of contract award or that is otherwise being used or represented to fulfill DBE contract obligations during the contract performance period. Written consent from the Department for terminating the performance of any DBE shall be granted only when the Contractor can demonstrate that the DBE is unable, unwilling, or ineligible to perform its obligations for which the Contractor sought credit toward the contract DBE goal. Such

written consent by the Department to terminate any DBE shall concurrently constitute written consent to substitute or replace the terminated DBE with another DBE. Consent to terminate a DBE shall not be based on the Contractor's ability to negotiate a more advantageous contract with another subcontractor whether that subcontractor is, or is not, a certified DBE.

1. All Contractor requests to terminate, substitute, or replace a certified DBE shall be in writing, and shall include the following information:

- (a) The date the Contractor determined the DBE to be unwilling, unable, or ineligible to perform.
- (b) The projected date that the Contractor shall require a substitution or replacement DBE to commence work if consent is granted to the request.
- (c) A brief statement of facts describing and citing specific actions or inaction by the DBE giving rise to the Contractor's assertion that the DBE is unwilling, unable, or ineligible to perform;
- (d) A brief statement of the affected DBE's capacity and ability to perform the work as determined by the Contractor;
- (e) A brief statement of facts regarding actions taken by the Contractor which are believed to constitute good faith efforts toward enabling the DBE to perform;
- (f) The current percentage of work completed on each bid item by the DBE;
- (g) The total dollar amount currently paid per bid item for work performed by the DBE;
- (h) The total dollar amount per bid item remaining to be paid to the DBE for work completed, but for which the DBE has not received payment, and with which the Contractor has no dispute;
- (i) The total dollar amount per bid item remaining to be paid to the DBE for work completed, but for which the DBE has not received payment, and over which the Contractor and/or the DBE have a dispute.

2. Contractor's Written Notice to DBE of Pending Request to Terminate and Substitute with another DBE.

The Contractor shall send a copy of the "request to terminate and substitute" letter to the affected committed DBE firm, in conjunction with submitting the request to the DCRO. The affected DBE firm may submit a response letter to the Department within two (2) business days of receiving the notice to terminate from the Contractor. The affected DBE firm shall explain its position concerning performance on the committed work. The Department will consider both the Contractor's request and the DBE's response and explanation before approving the Contractor's termination and substitution request, or determining if any action should be taken against the Contractor.

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

3. Proposed Substitution of Another Certified DBE

Upon termination of a DBE, the Contractor shall use reasonable good faith efforts to replace the terminated DBE. The termination of such DBE shall not relieve the Contractor

of its obligations pursuant to this section, and the unpaid portion of the terminated DBE's contract will not be counted toward the contract goal.

When a DBE substitution is necessary, the Contractor shall submit an amended Form C-111 with the name of another DBE firm, the proposed work to be performed by that firm, and the dollar amount of the work to replace the unfulfilled portion of the work of the originally committed DBE firm. The Contractor shall furnish all pertinent information including the contract I.D. number, project number, bid item, item description, bid unit and bid quantity, unit price, and total price. In addition, the Contractor shall submit documentation for the requested substitute DBE as described in this section of this Special Provision.

Should the Contractor be unable to commit the remaining required dollar value to the substitute DBE, the Contractor shall provide written evidence of good faith efforts made to obtain the substitute value requirement. The Department will review the quality, thoroughness, and intensity of those efforts. Efforts that are viewed by VDOT as merely superficial or pro-forma will not be considered good faith efforts to meet the contract goal for DBE participation. The Contractor must document the steps taken that demonstrated its good faith efforts to obtain participation as set forth in the **Good Faith Efforts Described** section of this Special Provision.

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

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

1. To perform a CUF the DBE trucking firm shall be completely responsible for the management and supervision of the entire trucking operation for which the DBE is responsible by sub contract on a particular contract. There shall not be a contrived arrangement, including, but not limited to, any arrangement that would not customarily and legally exist under regular construction project subcontracting practices for the purpose of meeting the DBE contract goal;
2. The DBE must own and operate at least one fully licensed, insured, and operational truck used in the performance of the contract work. This does not include a supervisor's pickup truck or a similar vehicle that is not suitable for and customarily used in hauling the necessary materials or supplies;
3. The DBE receives full contract goal credit for the total reasonable amount the DBE is paid for the transportation services provided on the contract using trucks the DBE owns, insures, and operates using drivers that the DBE employs and manages;
4. The DBE may lease trucks from another certified DBE firm, including from an owner-operator who is certified as a DBE. The DBE firm that leases trucks from another DBE will receive credit for the total fair market value actually paid for transportation services the lessee DBE firm provides on the contract;
5. The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit for the total value of the transportation services provided by non-DBE lessees, *not to exceed the value of transportation services provided by DBE-owned trucks on the contract*. For additional participation by non-DBE lessees, the DBE will only receive credit for the fee or commission it receives as a result of the lease arrangement.

EXAMPLE

DBE Firm X uses two (2) of its own trucks on a contract. The firm leases two (2) trucks from DBE Firm Y and six (6) trucks from non-DBE Firm Z.

		Value of Trans. Serv.
		(For Illustrative Purposes Only)
<u>Firm X</u>		
Truck 1	Owned by DBE	\$100 per day
Truck 2	Owned by DBE	\$100 per day
<u>Firm Y</u>		
Truck 1	Leased from DBE	\$110 per day
Truck 2	Leased from DBE	\$110 per day
<u>Firm Z</u>		
Truck 1	Leased from Non DBE	\$125 per day
Truck 2	Leased from Non DBE	\$125 per day
Truck 3	Leased from Non DBE	\$125 per day
Truck 4	Leased from Non DBE	\$125 per day
Truck 5	Leased from Non DBE*	\$125 per day
Truck 6	Leased from Non DBE*	\$125 per day

DBE credit would be awarded for the total transportation services provided by DBE Firm X and DBE Firm Y, and may also be awarded for the total value of transportation services by four (4) of the six (6) trucks provided by non-DBE Firm Z (not to exceed the value of transportation services provided by DBE-owned trucks).

Credit = 8 Trucks

Total Value of Transportation Services = \$820

In all, full DBE credit would be allowed for the participation of eight (8) trucks (twice the number of DBE trucks owned and leased) and the dollar value attributable to the Value of Transportation Services provided by the 8 trucks.

* With respect to the other two trucks provided by non-DBE Firm Z, DBE credit could be awarded only for the fees or commissions pertaining to those trucks that DBE Firm X receives as a result of the lease with non-DBE Firm Z.

6. For purposes of this section, the lease must indicate that the DBE firm leasing the truck has exclusive use of and control over the truck. This will not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, provided the lease gives the DBE absolute priority for and control over the use of the leased truck. Leased trucks must display the name and identification number of the DBE firm that has leased the truck at all times during the life of the lease.

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

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

- The annual gross receipts of the firm

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

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

O. Suspect Evidence of Criminal Behavior

Failure of a bidder, Contractor, or subcontractor to comply with the Virginia Department of Transportation Road and Bridge Specifications and these Special Provisions wherein there appears to be evidence of criminal conduct shall be referred to the Attorney General for the Commonwealth of Virginia and/or the FHWA Inspector General for criminal investigation and, if warranted, prosecution.

Suspected DBE Fraud

In appropriate cases, VDOT will bring to the attention of the U. S. Department of Transportation (USDOT) any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take the steps, e.g., referral to the Department of Justice for criminal prosecution, referral to the USDOT Inspector General, action under suspension and debarment or Program Fraud and Civil Penalties rules provided in 49CFR Part 31.

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

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

1. Disadvantaged Business Enterprise (DBE) Program Requirements

The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award, administration, and performance of this contract. Failure by the Contractor to carry out these requirements is a material breach of this contract, which will result in the termination of this contract or other such remedy, as VDOT deems appropriate.

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

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

Once awarded the contract, the Contractor shall comply fully with all regulatory and contractual requirements of the USDOT DBE Program, and that each certified DBE firm participating in the contract shall fully perform the designated work items with the DBE's own forces and equipment under the DBE's direct supervision, control, and management. Where a contract exists and where the Contractor, DBE firm, or any other firm retained by the Contractor has failed to comply with federal or VDOT DBE Program regulations and/or their requirements on that contract, VDOT has the authority and discretion to determine the extent to which the DBE contract requirements have not been met, and will assess against the Contractor any remedies available at law or provided in the contract in the event of such a contract breach.

3. Disqualification of Bidder

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

4. Bidding Procedures

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

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

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

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

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

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

5. Verification of DBE Participation and Imposed Damages

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

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

Suspect Evidence of Criminal Behavior

Failure of a bidder, Contractor, or subcontractor to comply with the Virginia Department of Transportation Road and Bridge Specifications and these Special Provisions wherein there appears to be evidence of criminal conduct shall be referred to the Attorney General for the Commonwealth of Virginia and/or the FHWA Inspector General for criminal investigation and, if warranted prosecution.

In appropriate cases, VDOT will bring to the attention of the U. S. Department of Transportation (USDOT) any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take the steps, e.g., referral to the Department of Justice for criminal prosecution, referral to the USDOT Inspector General, action under suspension and debarment or Program Fraud and Civil Penalties rules provided in 49CFR Part 31.

——STANDARD 100 SERIES SSs (SUPPLEMENTAL SPECIFICATIONS)——

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS

SUPPLEMENTAL DIVISION I—GENERAL PROVISIONS

SECTION 101—DEFINITIONS OF ABBREVIATIONS, ACRONYMS, AND TERMS

Section 101.02—Terms of the Specifications is amended to replace the definition for **Notice to Proceed** with the following:

Notice to Proceed. A date selected by the Contractor that is no earlier than 15 nor later than 30 calendar days after the date of contract execution on which the Contractor intends to begin the work, or a contract specific date on which the Contractor may begin the work identified as the Notice to Proceed date in the Contract Documents.

Section 101.02 Terms of the Specifications is amended to add the following:

Storm Sewer System - A drainage system consisting of a series of at least two interconnecting pipes and structures (minimum of two drop inlets, manholes, junction boxes, etc.) designed to intercept and convey stormwater runoff from a specific storm event without surcharge.

SECTION 102—BIDDING REQUIREMENTS AND CONDITIONS

Section 102.01—Prequalification of Bidders of the Specifications is amended to replace the first paragraph of (a) with the following:

All prospective Bidders, including all members of a joint venture, must prequalify with the Department and shall have received a certification of qualification in accordance with the Rules Governing Prequalification Privileges prior to bidding. These rules and regulations can be found within the Department's Rules Governing Prequalification Privileges via the Prequalification Application. This requirement may be waived by a project-specific provision in the bid proposal.

All subcontractors must be prequalified prior to performing any work on the contract, except that prequalification will not be required for subcontractors only performing a service as defined by the Code of Virginia, or only performing work items noted in the proposal as "Specialty Items".

In order to be eligible for DBE credit under Special Provision for Section 107.15, DBE federal-aid contract subcontractors must be VDOT prequalified and DMBE certified at the time of bid submission. The prequalification and certification status of a DBE may affect the award of the contract to the prime contractor and the award of the subcontract to the DBE at any point during the contract.

Section 102.04(c) Notice of Alleged Ambiguities of the Specifications is amended to replace the first paragraph with the following:

If a word, phrase, clause, or any other portion of the proposal is alleged to be ambiguous, the Bidder shall submit to the State Contract Engineer a written notice of the alleged ambiguity not later than 10 days prior to the date of receipt of bids and request an interpretation thereof. This written notice shall be submitted via the CABB (Contractor Advertisement Bulletin Board) system located on the Construction website at www.VDOT.Virginia.gov. Authorized interpretations will be issued by the State Contract Engineer to each person who received a proposal and will be posted on the CABB system.

Section 102.11— eVA Business-To-Government Vendor Registration of the Specifications is replaced with the following:

Bidders are not required to be registered with "eVA Internet e-procurement solution" at the time bids are submitted, however, prior to award, the lowest responsive and responsible bidder must be registered with "eVA Internet e-procurement solution" or the bid will be rejected. Registration shall be performed by accessing the eVA web site portal www.eva.state.va.us, following the instructions and complying with the requirements therein.

When registering with eVa it is the bidder's responsibility to enter or have entered their correct PA type address or addresses in eVa in order to receive payments on any contracts that the Department (VDOT) may award to them as the lowest responsive and responsible bidder. The Bidder shall also ensure their prequalification address(es) match those registered with eVa. Failure on the part of the bidder or Contractor to meet either of these requirements may result in late payment of monthly estimates.

SECTION 105—CONTROL OF WORK

Section 105.01—Notice to Proceed of the Specifications is replaced with the following:

Unless otherwise indicated in the Contract, the Notice to Proceed date will be the date selected by the Contractor on which the Contractor intends to begin the work. That date shall be no earlier than 15 nor later than 30 calendar days after the date of contract execution. The State Contract Engineer will contact the Contractor on the date of contract execution to inform him that the contract has been executed. The State Contract Engineer will also confirm this date in the Letter of Contract Execution. Copies of the Letter of Contract Execution will be distributed to Department personnel involved in the administration of the Contract and to the Contractor. Within 10 calendar days after the date of contract execution the Contractor shall submit to the Engineer written notice of the date he has selected as his Notice to Proceed date. If the Contractor fails to provide written notice of his selected Notice to Proceed Date within 10 calendar days of contract execution, the selected Notice to Proceed Date will become the date 15 calendar days after the date of contract execution. The Contractor shall begin work no later than 10 calendar days after the date he has selected as his Notice to Proceed date, unless the Notice to Proceed date is otherwise indicated in the Contract, in which case the Contractor shall begin work within 10 calendar days after the specific Notice to Proceed date indicated in the Contract.

Contract Time will commence on the date of the Notice to Proceed. The Letter of Contract Execution will identify the Chief Engineer's authorized representative, hereafter referred to as the Engineer, who is responsible for written directives and changes to the Contract. The Engineer will contact the Contractor after notice of award to arrange a pre-construction conference.

In the event the Contractor, for matters of his convenience, wishes to begin work earlier than 15 calendar days or later than 30 calendar days after the date of contract execution, he shall make such a request in writing to the Engineer within 10 calendar days of the date of contract execution or once a Notice to Proceed Date has been established, if he wishes to begin work more than 10 calendar days after his selected Notice to Proceed date or the Notice to Proceed Date indicated in the Contract, he shall make such a request to the Engineer in writing no later than 5 calendar days after the Notice to Proceed date. If this requested start date is acceptable to the Department, the Contractor will be notified in writing; however, the Contract fixed completion date will not be adjusted but will remain binding. The Contractor's request to adjust the start date for the work on the Contract will not be considered as a basis for claim that the time resulting from the Contractor's adjusted start date, if accepted by the Engineer, is insufficient to accomplish the work nor shall it relieve the Contractor of his responsibility to perform the work in accordance with the scope of work and requirements of the Contract. In no case shall work begin before the Department executes the Contract or prior to the Notice to Proceed date unless otherwise permitted by the Contract or authorized by the Engineer. The Contractor shall notify the Engineer at least 24 hours prior to the date on which he will begin the work.

Section 105.02—Pre-Construction Conference of the Specifications is amended to replace the first paragraph with the following:

After notification of award and prior to the Notice to Proceed date the Contractor shall attend a pre-construction conference scheduled by the Engineer to discuss the Contractor's planned operations for prosecuting and completing the work within the time limit of the Contract. At the pre-construction conference the Engineer and the Contractor will identify in writing the authorities and responsibilities of project personnel for each party. The pre-construction conference may be held simultaneously with the scheduling conference when the Engineer so indicates this in advance to the Contractor. When these are simultaneously held, the Contractor shall come prepared to discuss preparation and submittal details of the progress schedule in accordance with the requirements of the Contract.

Section 105.10(c)(1)—Steel Structures of the Specifications is replaced with the following:

Working drawings for steel structures, including metal handrails, shall consist of shop detail, erection, and other working drawings showing details, dimensions, sizes of units, and other information necessary for the fabrication and erection of metal work.

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

The Contractor shall provide at least one person on the project site during all work operations who is currently verified either by the Department in Intermediate Work Zone Traffic Control, or by the American Traffic Safety Services Association (ATSSA) as a Traffic Control Supervisor (TCS). This person must have the verification card with them while on the project site. This person shall be responsible for the oversight of work zone traffic control within the project limits in compliance with the contract requirements involving the plans, specifications, the VWAPM, and the MUTCD. This person's duties shall include the supervision of the installation, adjustment (if necessary), inspection, maintenance and removal when no longer required of all traffic control devices on the project.

If none of the Contractor's on-site personnel responsible for the supervision of such work has the required verification with them or if they have an outdated verification card showing they are not currently verified either by the Department in Intermediate Work Zone Traffic Control, or by the American Traffic Safety Services Association (ATSSA) as a Traffic Control Supervisor (TCS) all work on the project will be suspended by the Engineer.

The Contractor shall provide at least one person on site who is, at a minimum, verified by the Department in Basic Work Zone Traffic Control for each construction and/or maintenance operation that involves installing, maintaining, or removing work zone traffic control devices. This person shall be responsible for the placement, maintenance and removal of work zone traffic control devices.

In the event none of the Contractor's on-site personnel of any construction/maintenance operation has, at a minimum, the required verification by the Department in Basic Work Zone Traffic Control, that construction/maintenance operation will be suspended by the Engineer until that operation is appropriately staffed in accordance with the requirements herein.

Section 105.15(b) Mailboxes and Newspaper Boxes of the Specifications is replaced with the following:

- (b) **Mailboxes and Newspaper Boxes:** When removal of existing mailboxes and newspaper boxes is made necessary by construction operations, the Contractor shall place them in temporary locations so that access to them will not be impaired. Prior to final acceptance, boxes shall be placed in their permanent locations as designated by the Engineer and left in as good condition as when found. Boxes or their supports that are damaged through negligence on the part of the Contractor shall be replaced at his expense. The cost of removing and resetting existing boxes shall be included in other pay items of the Contract. New mailboxes designated in the plans shall be paid for in accordance with the provisions of Section 521 of the Specifications.

SECTION 107—LEGAL RESPONSIBILITIES

Section 107.13—Labor and Wages of the Specifications is amended to add the following:

- (c) **Job Service Offices:** In advance of the Contract starting date, the Contactor may contact the Job Service Office of the Virginia Employment Commission at the nearest location to secure referral of available qualified workers in all occupational categories. The closest office may be obtained by accessing the VEC web site at <http://www.vec.virginia.gov> and "clicking" on "VEC Workforce Centers".

Section 107.14(f) Training of the Specifications is amended to replace 5 and 6 with the following:

5. If the Contract provides a pay item for trainees, training shall be in accordance with the requirements of Section 518 of the Specifications.

Section 107.16(a) Erosion and Siltation of the Specifications is amended to replace the fourth paragraph with the following:

For projects that disturb 10,000 square feet or greater of land or 2,500 square feet or greater in Tidewater, Virginia, the Contractor shall have within the limits of the project during land disturbance activities, an employee certified by the Department in Erosion and Sediment control who shall inspect erosion and siltation control devices and measures for proper installation and operation and promptly report their findings to the Inspector. Inspections shall include all areas of the site disturbed by construction activity and all off site support facilities covered by the project's Stormwater Pollution Prevention Plan. Inspections shall be conducted at least once every 14 calendar days and within 48 hours following any runoff producing storm event (Note: If an inspection is conducted as a result of a storm event, another inspection is not required for 14 calendar days following provided there are no more runoff producing storm events during the that period). For those areas that have been temporarily stabilized or runoff is unlikely to occur due to winter conditions (e.g., the site is covered with snow or ice or frozen ground exists), inspections shall be conducted at least once a month. Those definable areas where final stabilization has been achieved will not require further inspections provided such areas have been identified in the project's Stormwater Pollution Prevention Plan. Failure of the Contractor to maintain a certified employee within the limits of the project will result in the Engineer suspending work related to any land disturbing activity until such time as a certified employee is present on the project. Failure on the part of the Contractor to maintain appropriate erosion and siltation control devices in a functioning condition may result in the Engineer notifying the Contractor in writing of specific deficiencies. Deficiencies shall be corrected immediately. If the Contractor fails to correct or take appropriate actions to correct the specified deficiencies within 24 hours after receipt of such notification, the Department may do one or more of the following: require the Contractor to suspend work in other areas and concentrate efforts towards correcting the specified deficiencies, withhold payment of monthly progress estimates, or proceed to correct the specified deficiencies and deduct the entire cost of such work from monies due the Contractor. Failure on the part of the Contractor to maintain a Department certified erosion and sediment control employee within the project limits when land disturbance activities are being performed will result in the Engineer suspending work related to any land disturbance activity until such time as the Contractor is in compliance with this requirement.

Section 107.16(e) Storm Water Pollution Prevention Plan of the Specifications is replaced with the following:

- (e) **Storm Water Pollution Prevention Plan and Virginia Stormwater Management Program General Permit for the Discharge of Stormwater from Construction Activities**

A Stormwater Pollution Prevention Plan (c) identifies potential sources of pollutants which may reasonably be expected to affect the stormwater discharges from the construction site and any off site support areas and describes and ensures implementation of practices which will be used to reduce pollutants in such discharges.

The SWPPP is comprised of, but not limited to, the Erosion and Sediment Control (ESC) Plan, the Stormwater Management (SWM) Plan and related Specifications and Standards contained within

all contract documents and shall be required for all land-disturbing activities that disturb 10,000 square feet or greater, or 2,500 square feet or greater in Tidewater, Virginia.

Land-disturbing activities that disturb one acre or greater, or 2,500 square feet or greater in an area designated as a Chesapeake Bay Preservation Area, require coverage under the Department of Conservation and Recreation's Virginia Stormwater Management Program (VSMP) General Permit for the Discharge of Stormwater from Construction Activities (hereafter referred to as the VSMP Construction Permit). Where applicable, the Department will apply for and retain coverage under the VSMP Construction Permit for those land disturbing activities for which it has contractual control.

The required contents of a SWPPP for those land disturbance activities requiring coverage under the VSMP Construction Permit are found in Section II D of the General Permit section of the VSMP Regulations (4VAC50-60-1170). While a SWPPP is an important component of the VSMP Construction Permit, it is only one of the many requirements that must be addressed in order to be in full compliance with the conditions of the permit.

The Contractor and all other persons that oversee or perform activities covered by the VSMP Construction Permit shall be responsible for reading, understanding, and complying with all of the terms, conditions and requirements of the permit and the project's SWPPP including, but not limited to, the following:

1. Project Implementation Responsibilities

The Contractor shall be responsible for the installation, maintenance, inspection, and, on a daily basis, ensuring the functionality of all erosion and sediment control measures and all other stormwater and pollutant runoff control measures identified within or referenced within the SWPPP, plans, Specifications, permits, and other contract documents.

The Contractor shall take all reasonable steps to prevent or minimize any stormwater or non-stormwater discharge that will have a reasonable likelihood of adversely affecting human health or public and/or private properties.

2. Certification Requirements

In addition to satisfying the personnel certification requirements contained herein, the Contractor shall certify his activities by completing, signing, and submitting Form C-45 VDOT SWPPP Contractor and Subcontractor Certification Statement to the Engineer at least 7 days prior to commencing any project related land-disturbing activities, both on-site and off-site.

3. SWPPP Requirements for Support Facilities

Where not included in the plans, the Contractor shall develop erosion and sediment control plan(s) and stormwater pollution prevention plan(s) for submission and acceptance by the Engineer prior to usage of any on-site or off-site support facilities including but not limited to, borrow and disposal areas, construction and waste material storage areas, equipment and vehicle storage and fueling areas, storage areas for fertilizers or chemicals, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the construction process. Such plans shall document the location and description of potential pollutant sources from these areas and shall include a description of the controls to reduce, prevent and control pollutants from these sources including spill prevention and response. The Contractor shall submit such plans and documentation as specified herein to the Engineer and, upon review and approval, they shall immediately become a component of the project's SWPPP and VSMP Construction Permit (where applicable) and shall be subject to all conditions and requirements of the VSMP Construction Permit (where applicable) and all other contract documents.

4. Reporting Procedures

a. Inspection Requirements

The Contractor shall be responsible for conducting inspections in accordance with the requirements herein. The Contractor shall document such inspections by completion of Form C-107 (a) and (b), Construction Runoff Control Inspection Form and Continuation Sheet, in strict accordance with the directions contained within the form.

b. Unauthorized Discharge Requirements

The Contractor shall not discharge into state waters sewage, industrial wastes, other wastes or any noxious or deleterious substances nor shall otherwise alter the physical, chemical, or biological properties of such waters that render such waters detrimental for or to domestic use, industrial consumption, recreational or other public uses.

(1) Notification of non-compliant discharges

The Contractor shall immediately notify the Engineer upon the discovery of or potential of any unauthorized, unusual, extraordinary, or non-compliant discharge from the land disturbing activity. Where immediate notification is not possible, such notification shall be not later than 24 hours after said discovery.

(2) Detailed report requirements for non-compliant discharges

The Contractor shall submit to the Engineer within 5 days of the discovery of any actual or potential non-compliant discharge a written report describing details of the discharge to include its volume, location, cause, and any apparent or potential effects on private and/or public properties and state waters or endangerment to public health, as well as steps being taken to eliminate the discharge. A completed Form C-107 (a) and (b) shall be included in such reports.

5. Changes, Deficiencies and Revisions

a. Changes and Deficiencies

The Contractor shall report to the Engineer when any planned physical alterations or additions are made to the land disturbing activity or deficiencies in the project plans or contract documents are discovered that could significantly change the nature or increase the quantity of the pollutants discharged from the land disturbing activity to surface waters.

b. Revisions to the SWPPP

Where site conditions, construction sequencing or scheduling necessitates revisions or modifications to the erosion and sediment control plan or any other component of the SWPPP for the land disturbing activity, such revisions or modifications shall be approved by the Engineer and shall be documented by the Contractor on a designated plan set (Record Set).

Such plans shall be maintained on the project site or at a location convenient to the project site where no on site facilities are available and shall be available for review upon request during normal business working hours.

Section 107.21—Size and Weight Limitations of the Specifications is amended to add the following:

- (d) **Construction Loading of Structures** - In the construction, reconstruction, widening, or repair of bridge, culvert, retaining wall and other similar type structures including approaches, the Contractor shall consider construction loads during the planning and prosecution of the work. If the loading capacity of these type structure(s) is not shown in the contract documents, the Contractor is

responsible for contacting the office of the appropriate district bridge engineer to obtain the loading capacity information. Construction loads include but are not limited to the weight of cranes, trucks, other heavy construction or material delivery equipment, as well as the delivery or storage of materials placed on or adjacent to the structure or parts thereof during the various stages (phases) of the work in accordance with the Contractor's proposed work plan. The Contractor shall consider the effect(s) of construction loads on the loading capacity of these type structure(s) in his sequencing of the work and operations, including phase construction. At the Engineer's request the Contractor shall be prepared to discuss or review his proposed operations with the Engineer with regard to construction loads to demonstrate he has taken such into consideration in the planning and execution of the work.

SECTION 108—PROSECUTION AND PROGRESS OF WORK

Section 108.01—Prosecution of Work of the Specifications is amended to replace the first paragraph with the following:

The Contractor shall begin work on the Contract within 10 calendar days after the date selected by the Contractor as his Notice to Proceed date or within 10 calendar days after the specific Notice to Proceed date indicated in the Contract, unless otherwise altered or amended by specific language in the Contract or as permitted by the provisions of Section 105.01 or Section 108.02 of the Specifications.

Section 108.02(b) Holidays of the Specifications is amended to include the following:

In addition to the Sunday or Holiday work limitations, mobile, short duration, short-term stationary, or intermediate-term stationary temporary traffic control zone (as defined in the *Virginia Work Area Protection Manual*) lane closures on mainline lanes, shoulders, or ramps shall not be performed during the following Holiday time periods without the written permission of the Engineer. Additionally, a long-term stationary temporary traffic control zone (as defined in the *Virginia Work Area Protection Manual*) shall not be initially put in place, adjusted, or removed during the following Holiday time periods without the written permission of the Engineer:

- **January 1:** From Noon on the preceding day until Noon on the following day, except as indicated below.
- **Easter:** As indicated below.
- **Memorial Day:** As indicated below.
- **July 4:** From Noon on the preceding day until Noon on the following day, except as indicated below.
- **Labor Day:** As indicated below.
- **Thanksgiving Day:** From Noon on the Wednesday preceding Thanksgiving Day until Noon on the Monday following Thanksgiving Day.
- **Christmas Day:** From Noon on the preceding day until Noon on the following day, except as indicated below.

If the Holiday occurs on a Friday or Saturday: From Noon on the preceding Thursday to Noon on the following Monday.

If the Holiday occurs on a Sunday or Monday: From Noon on the preceding Friday to Noon on the following Tuesday.

Section 108.04—Determination and Extension of Contract Time Limit of the Specifications is amended to replace the second paragraph with the following:

With a fixed date contract when contract execution is not within 60 calendar days after the opening of bids, or when the Contractor is unable to commence work because of any failure of the Department, or when the Contractor is delayed because of the fault of the Department, the Contractor will be given an extension of time based on the number of days delayed beyond the 60 calendar days. No time extension will be allowed for a delay in the date of contract execution when the delay is the fault of the Contractor.

Section 108.04(a) Fixed Date of the Specifications is amended to add the following after the first paragraph as currently written:

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

Section 108.07—Default of Contract of the Specifications is amended to replace condition (a) with the following:

- (a) fails to begin the work under the Contract within 10 calendar days after the Contractor's selected Notice to Proceed date, or within 10 calendar days after a contract specific Notice to Proceed date indicated in the Contract, except as otherwise permitted by specific contract language or the provisions of Section 105.01 or Section 108.02 of the Specifications.

SECTION 109—MEASUREMENT AND PAYMENT

Section 109.01(a)—Measurement by Weight is amended to replace the first paragraph and second paragraph including subparagraphs 1-4 with the following:

- (a) **Measurement by Weight:** Materials that are measured or proportioned by weight shall be weighted on accurate scales as specified in this Section. When material is paid for on a tonnage basis, personnel performing the weighing shall be certified by the Department and shall be bonded to the Commonwealth of Virginia in the amount of \$10,000 for the faithful observance and performance of the duties of the weighperson required herein. The bond shall be executed on a form having the exact wording as the Weighpersons Surety Bond Form furnished by the Department and shall be submitted to the Department prior to the furnishing of the tonnage material.

The Contractor shall have the weighperson perform the following:

1. Furnish a signed weigh ticket for each load that shows the date, load number, plant name, size and type of material, project number, schedule or purchase order number, and the weights specified herein.
2. Maintain sufficient documentation so that the accumulative tonnage and distribution of each lot of material, by contract, can be readily identified.
3. Submit by the end of the next working day a summary of the number of loads and total weights for each type of material by contract.

Section 109.01(a)—Measurement by Weight is also amended to delete the third paragraph.

Section 109.01(d)4 Asphalt is amended to replace the "formula...used in computing the volume of asphalt at temperatures other than 60 degrees F" with the following:

$$V^1 = V \times [1 - K(T - 60)]$$

Section 109.08(b)—Payment to Sub-Contractors of the Specifications is amended to replace the second paragraph with the following:

Payment to Sub-Contractors shall be in accordance with the provisions of §2.2-4354 of the *Highway Laws of Virginia*:

The Contractor shall take one of the following two actions within 7 days after receipt of payment from the Department for the subcontractor's portion of the work as shown on the monthly progress estimate:

1. Pay the subcontractor for the proportionate share of the total payment received from the agency attributable to the work performed by the subcontractor under that contract; or
2. Notify the Department and subcontractor, in writing, of his intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment.

The Contractor shall be obligated to pay interest in the amount 1 (one) percent per month on all amounts owed by the Contractor to the subcontractor that remain unpaid after 7 days following receipt by the contractor of payment from the Department for work performed by the subcontractor, except amounts withheld as allowed in section 2. The Contractor shall include in each of its subcontracts a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower tier subcontractor.

Section 109.09—Payment For Material On Hand of the Specifications is replaced with the following:

When requested in writing by the Contractor, payment allowances may be made for material secured for use on the project. Such material payments will be for only those actual quantities identified in the contract, approved work orders, or otherwise **authorized and documented by the Engineer** as required to complete the project and shall be in accordance with the following terms and conditions:

- (a) **Structural Steel or Reinforcing Steel:** An allowance of 100 percent of the cost to the Contractor for structural steel **or reinforcing steel** materials secured for fabrication not to exceed 60 percent of the contract price may be made when such material is delivered to the fabricator and has been adequately identified for exclusive use on the project. **The provisions of this section for steel reinforcement will only apply where the quantity of steel reinforcement is identified as a separate and distinct bid item for payment.** An allowance of 100 percent of the cost to the Contractor for superstructure units and reinforcing steel, not to exceed 90 percent of the contract price, may be made when fabrication is complete. Prior to the granting of such allowances, the materials and fabricated units shall have been tested or certified and found acceptable to the Department and shall have been stored in accordance with the requirements specified herein. Allowances will be based on invoices, bills, or the estimated value as approved by the Engineer and will be subject to the retainage requirements of Section 109.08 of the Specifications. **For the purposes of this section fabrication is defined as any manufacturing process such as bending, forming, welding, cutting or coating with paint or anti-corrosive materials which alters, converts, or changes raw material for its use in the permanent finished work.**
- (b) **Other Materials:** For aggregate, pipe, guardrail, signs and sign assemblies, and other nonperishable material, an allowance of 100 percent of the cost to the Contractor for materials, not to exceed 90 percent of the contract price, may be made when such material is delivered **to the project** and stockpiled or stored in accordance with the requirements specified herein. Prior to the granting of such allowances, the material shall have been tested and found acceptable to the Department. Allowances will be based on invoices, bills, or the estimated value of the material as approved by the Engineer and will be subject to the retainage provisions of Section 109.08 of the Specifications.

- (c) **Excluded Items:** No allowance will be made for fuels, form lumber, fall sework, temporary structures, or other work that will not become an integral part of the finished construction. **Additionally, no allowance will be made for perishable material such as cement, seed, plants, or fertilizer.**
- (d) **Storage:** Material for which payment allowance is requested shall be stored in an approved manner in areas where damage is not likely to occur. If any of the stored materials are lost or become damaged, the Contractor shall repair or replace them **at no additional cost to the Department. Repair or replacement of such material will not be considered the basis for any extension of contract time.** If payment allowance has been made prior to such damage or loss, the amount so allowed or a proportionate part thereof will be deducted from the next progress estimate payment and withheld until satisfactory repairs or replacement has been made.

When it is determined to be impractical to store materials within the limits of the project, the Engineer may approve storage on private property or, for structural units and reinforcing steel, on the manufacturer's or fabricator's yard. Requests for payment allowance for such **stored** material shall be accompanied by a release from the owner or tenant of such property or yard agreeing to permit the removal of the materials from the property without cost to the Commonwealth.

- (e) **Materials Inventory:** If the Contractor requests a payment allowance for properly stored material, he shall submit a certified and itemized inventory statement to the Engineer no earlier than five days and no later than two days prior to the progress estimate date. The statement shall be submitted on forms furnished by the Department and shall be accompanied by **supplier's or manufacturer's** invoices or other documents that will verify the material's cost. Following the initial submission, the Contractor shall submit to the Engineer a monthly-certified update of the itemized inventory statement within the same time frame. The updated inventory statement shall show additional materials received and stored with invoices or other documents and shall list materials removed from storage since the last certified inventory statement, with appropriate cost data reflecting the change in the inventory. If the Contractor fails to submit the monthly-certified update within the specified time frame, the Engineer will deduct the full amount of the previous statement from the progress estimate.

At the conclusion of the project, the cost of material remaining in storage for which payment allowance has been made will be deducted from the progress estimate.

—DIVISION II— MATERIALS—

——STANDARD 200 SERIES SSs (SUPPLEMENTAL SPECIFICATIONS)——

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS

SUPPLEMENTAL SECTION 214—HYDRAULIC CEMENT

SECTION 214—HYDRAULIC CEMENT of the Specifications is amended as follows:

Section 214.02(b) Portland cements is amended by replacing 1. with the following:

1. The SO_3 content as specified in AASHTO M85 will be permitted, provided supporting data specified in AASHTO M85 are submitted to the Department for review and acceptance prior to use of the material.

Section 214.02(b) Portland cements is amended by deleting 3., 4., and 5.

Section 214.02—Detail Requirements is amended by adding the following:

- (b) **Expansive hydraulic cement** shall conform to the requirements of ASTM C 845 Type K.

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS

SUPPLEMENTAL SECTION 215—HYDRAULIC CEMENT CONCRETE ADMIXTURES

SECTION 215—HYDRAULIC CEMENT CONCRETE ADMIXTURES of the Specifications is amended as follows:

Section 215.02(g) Fly ash is replaced with the following:

- (g) **Pozzolan** shall conform to Section 241 of the Specifications.

Section 215.02—Materials is amended by adding the following:

- (k) **Metakaolin** shall conform to the requirements of AASHTO M321

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS

SUPPLEMENTAL SECTION 217—HYDRAULIC CEMENT CONCRETE

SECTION 217—HYDRAULIC CEMENT CONCRETE of the Specifications is amended as follows:

Section 217.02(a) Cementitious Materials is replaced with the following:

Cementitious materials shall be a blend of mineral admixtures and Portland cement or a blended cement. In overlay concretes, expansive hydraulic cement is permitted in lieu of Portland cement. Portland cement (Types I, II, III) blended cements (Type IP, Type IS) or expansive cement (Type K) shall comply with Section 214 of the Specifications. Flyash, ground granulated iron blast-furnace slag (GGBFS), silica fume or metakaolin shall conform to Section 215 of the Specifications. As a portion of the cementitious material, Table 1 lists the minimum percents of specific pozzolans required by mass of the cementitious material depending on the alkali content of the cement. Any other mineral admixture or any other amount or combination of mineral admixtures may be used if approved by the Engineer. As a portion of the cementitious material, the fly ash content shall not exceed 30 percent for Class F, the ground granulated blast-furnace slag content shall not exceed 50 percent and the silica fume content shall not exceed 10 percent unless approved by the Engineer. Class C Flyash or other pozzolans may be used provided the contractor demonstrates that the percent usage of Class C Flyash or other pozzolans have a maximum expansion of 0.15% according to ASTM C227 at 56 days using borosilicate glass as aggregate. Blended cements require no further pozzolan additions to meet minimum pozzolan content to compensate for the alkali-silica reaction.

Up to 7 percent silica fume may be added to all combinations of cementitious materials to reduce early permeability without approval by the Engineer. Other silica fume additions must be approved by the Engineer.

Table 1 – Minimum percent pozzolan required by mass of cementitious material as a portion of the total cementitious materials and are based upon the alkali content of the cement.

	Total Alkalies of Cement is less than or equal to 0.75%	Total Alkalies of Cement is greater than 0.75% and less than or equal to 1.0%
Class F Flyash	20%	25%
GGBF Slag	40%	50%
Silica Fume	7%	10%
Metakaolin	7%	10%

TABLE II–17 Requirements for Hydraulic Cement Concrete is replaced with the following:

TABLE II-17
Requirements for Hydraulic Cement Concrete

Class of Concrete	Design Min. Laboratory Compressive Strength at 28 Days (f'c) (psi)	Aggregate Size No. ⁶	Design Max. Laboratory Permeability at 28 Days (Coulombs) ⁵	Nominal Max. Aggregate Size (in)	Min. Grade Aggregate	Min. Cementitious Content (lb./cu yd)	Max. Water /Cementitious Mat. (lb. Water/lb. Cement)	Consistency (in of slump)	Air Content (percent) ¹
A5 Prestressed and other special designs ²	5,000 or as specified on the plans	57 or 68	1,500	1	A	635	0.40	0-4	4 1/2 ± 1 1/2
A4 General	4,000	56 or 57	2,500	1	A	635	0.45	2-4	6 1/2 ± 1 1/2
A4 Post & rails	4,000	7,8 or 78	2,500	0.5	A	635	0.45	2-5	7 ± 2
A3 General	3,000	56 or 57	3,500	1	A	588	0.49	1-5	6 ± 2
A3a Paving	3,000	56 or 57	3,500	1	A	564	0.49	0-3	6 ± 2
A3b Paving	3,000	357	3,500	2	A	N.A	0.49	0-3	6 ± 2
B2 Massive or lightly Reinforced	2,200	57	N.A.	1	B	494	0.58	0-4	4 ± 2
C1 Massive Unreinforced	1,500	57	N.A.	1	B	423	0.71	0-3	4 ± 2
T3 Tremie seal	3,000	56 or 57	N.A.	1	A	635	0.49	3-6	4 ± 2
Latex hydraulic cement concrete overlay ³	3,500	7,8 or 78	1,500	0.5	A	658	0.40	4-6	5 ± 2
Silica fume, silica fume /Class F Fly Ash or silica fume/slag concrete overlay ⁴	5000	7,8 or 78	1,500	0.5	A	658	0.40	4-7	6 ± 2
Class F Fly Ash or slag overlay	4000	7,8 or 78	1,500	0.5	A	658	0.40	4-7	6 ± 2

(See next page for notes on TABLE II-17).

(See next page for notes on TABLE II-17).

----- (TABLE II-17 Notes) -----

- ¹ When a high-range water reducer is used, the upper limit for entrained air may be increased by 1% and the slump shall not exceed 7 inches.
- ² When Class A5 concrete is used as the finishing bridge deck riding surface, or when it is to be covered with asphalt concrete with or without waterproofing, the air content shall be $5 \frac{1}{2} \pm 1 \frac{1}{2}$ percent.
- ³ The latex modifier content shall be 3.5 gallons per bag of cement. Slump shall be measured approximately 4.5 minutes after discharge from the mixer.
- ⁴ Silica fume with a minimum of 7% by weight of cementitious material; silica fume with a range of 2.5-5 % shall be combined with Class F Fly Ash in range of 15-20% and minimum cement of 77.5% by weight of cementitious material; silica fume with a range of 2.5-5% shall be combined with Ground Granulated Blast Furnace Slag in the range of 30-35% and a minimum cement of 67.5% by weight of cementitious material.
- ⁵ The permeability testing does not apply to small bridges identified on the bridge plans and to concrete structures and incidental concrete as described in Sections 219, 232, 302, 415, 502, 504, 506 and 519. Curing and testing of test cylinders for permeability will be in accordance with VTM 112.
- ⁶ The contractor may use different aggregate sizes or a combination of sizes to increase the coarse aggregate content of the concrete as approved by the Engineer. The maximum size of the coarse aggregate shall not exceed 2.5 inches.

Note: With the approval of the Engineer, the Contractor may substitute a higher class of concrete for that specified at the Contractor's expense.

Section 217.02(b) Formulated latex modifier is amended by adding the following:

For latex-modified concrete, Type I, Type II, Type III or Type K, cement shall be used without mineral admixtures.

Section 217.04(a)4. Admixtures is replaced with the following:

4. **Admixtures** shall be dispensed and used according to the manufacturer's recommendations. They shall be added within a limit of accuracy of 3 percent, by means of an approved, graduated, transparent, measuring device before they are introduced into the mixer. If more than one admixture is to be used, they shall be released in sequence rather than in the same instant. Once established, the sequence of dispensing admixtures shall not be altered. However, when the amount of admixture required to give the specified results deviates appreciably from the manufacturer's recommended dosage, use of the material shall be discontinued.

Section 217.05—Equipment is amended to replace the first paragraph with the following:

Equipment and tools necessary for handling materials and performing all parts of the work will be approved by the Engineer and must be in accordance with one of the following procedures:

1. having a current National Ready Mix Concrete Association Plant and Truck Certification, or
2. having a Department approved self-certification program in-place prior to the production of concrete for the Department.

Failure to comply with one or the other of these procedures will result in the concrete production being unapproved and work will not be allowed to proceed.

Section 217.05(a) Batching Equipment is amended to replace the second paragraph with the following:

Scales used for weighing aggregates and cement shall be approved and sealed in accordance with the requirements of Section 109 of the Specifications.

Section 217.05—Equipment is amended to add the following:

- (d) **High Performance Volumetric Mixers (HPVMs):** The Contractor may produce the specified class of hydraulic cement concrete in Table II-17 in accordance with Section 217.02(a) of the Specifications provided that the manufacturer's equipment meets the tolerance requirements of Section 217.04(a) of the Specifications and has a stamped plate from the Volumetric Mixers Manufacturers Bureau stating that the equipment conforms to the requirements in ASTM C685.

The hydraulic cement concrete shall be mixed at the point of delivery by a combination of materials transport and mixer unit conforming to the following:

1. The unit shall be equipped with calibrated proportioning devices for each ingredient added to the concrete mix. The unit shall be equipped with a working recording meter that is visible at all times and furnishes a ticket printout with the calibrated measurement of the mix being produced. If at anytime the mixer fails to discharge a uniform mix, production of concrete shall halt until any problems are corrected.
2. Each unit shall have a metal plate(s) attached in a prominent place by the manufacturer on which the following are plainly marked: the gross volume of the transportation unit in terms of mixed concrete, the discharge speed and the mass calibrated constant of the machine in terms of volume.
3. HPVMs shall be calibrated by a Department approved testing agency in accordance with the manufacturer's recommendations at an interval of every 6 months or a maximum production of 2500 cubic yards, whichever occurs first prior to use on the project. The yield shall be maintained within a tolerance of ± 1 percent and verified using a minimum 2 cubic feet container every 500 cubic yards or a minimum once per week.
4. The three cubic feet initially discharged from the truck shall be discarded and not used for concrete placement. Acceptance of the specified class of concrete shall comply with Section 217.08 of the Specifications except that the sample secured for acceptance testing will be taken after four cubic feet is discharged from the delivery vehicle. During discharge, the consistency as determined by ASTM C143 on representative samples taken from the mixer discharge at random intervals shall not vary more than 1 inch. Acceptance tests shall be performed on each load. If test data demonstrates that consistency of concrete properties are being achieved, the Engineer may reduce testing requirements.
5. The HPVM shall be operated by a person who is a certified operator by the HPVM manufacturer. Any equipment adjustments made during the on-site production of concrete shall be done under the direct on-site supervision of the producer's VDOT Concrete Plant and Field Certified Technician.

Each load of HPVM produced concrete shall be accompanied by a Form TL-28 signed by the producer's VDOT Certified Concrete Plant Technician or a designated company representative working under the direct on-site supervision of the producer's VDOT Concrete Plant and Field Certified Technician. The form shall be delivered to the Inspector at the site of the work. Loads that do not carry such information or do not arrive in satisfactory condition shall not be used.

Section 217.07—Proportioning Concrete Mixtures is amended to replace the first paragraph with the following:

The Contractor is responsible for having a Certified Concrete Plant Technician available during batching operations, and a Certified Concrete Field Technician shall be present during placing operations.

Section 217.07—Proportioning Concrete Mixtures is amended to delete the third paragraph beginning with “**A Certified Concrete Batchers**”.

Section 217.08—Acceptance is replaced with the following:

- (a) **Air Consistency Tests:** Air and consistency tests will be performed by the Department prior to discharge of concrete into the forms to ensure that specification requirements are consistently being complied with for each class of concrete. The sample secured for the tests shall be taken after at least two cubic feet of concrete has been discharged from the delivery vehicle. The two cubic feet discharged is not to be used as part of the test sample. Any deviation from sampling and testing procedures must be approved by the Engineer. The Contractor shall provide a receptacle conforming to the requirements of ASTM C31, Section 5.9, for the Department's use in obtaining the sample. If either determination yields a result that is outside of the allowable range for air content or consistence, the following procedure will be used:
1. The Engineer will immediately perform a recheck determination. If the results confirm the original test results, the load will be rejected.
 2. The Contractor's representative will be immediately informed of the test results.
 3. The Contractor's representative shall notify the producer of the test results through a pre-established means of communication.

The Engineer may perform any additional tests deemed necessary and reject all remaining material that fails the tests.

Entrained air content will be determined in accordance with the requirements of ASTM C231 or ASTM C173. Acceptance or rejection will be based on the results obtained from these tests.

In general, a mixture that contains the minimum amount of water consistent with the required workability shall be used. Consistency will be determined in accordance with the requirements of ASTM C143. Adding cement to loads previously rejected for excessive water content or consistency will not be permitted.

- (b) **Strength Tests:** The 28-day compressive strengths (f'_c) specified in Table II-17 are the strengths used in the design calculations. The Engineer will verify design strengths by tests made during the progress of the work in accordance with the requirements of ASTM C31 (Standard Practice for Making and Curing Concrete Test Specimens in the Field) and ASTM C39 (Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens) with the exception that the fresh concrete sample used for testing is to be secured after at least two cubic feet has been discharged from the delivery vehicle. The two cubic feet discharged is not to be used as part of the test sample. Any deviation from sampling and testing procedures must be pre-approved by the Engineer. The use of ASTM C42 (Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete) will be at the Engineer's discretion. If the 28-day design compressive strength (f'_c) test results do not conform to the strength requirements specified in Table II-17, immediate steps shall be taken to adjust the mixture design. In addition, the Engineer may require removal of or corrective measures be applied to any concrete that does not meet the requirements of Table II-17. If the concrete cylinder strength, f'_{cyl} , is less than the specified compressive strength found in Table II-17, the criteria in Table II-17A shall apply:

Table II – 1 7A Price Reduction or Action Taken due to f'_{cyl} not meeting the specification value f'_c listed in Table II-17

Condition	Concrete is a Pay Item	Concrete is <u>Not</u> a Pay Item
f'_{cyl} is greater than or equal to 98% f'_c	A	A
f'_{cyl} is greater than or equal to 90% f'_c and less than 98% f'_c	B	C
f'_{cyl} is less than 90% f'_c	D	D
f'_{cyl} is not available due to the Contractor's inappropriate handling and storage of specimens in accordance with ASTM C31	D	D

f'_c is the 28-day design compressive strength found in Table II-17.

f'_{cyl} is the actual average tested strength of the standard-cured concrete cylinder made and tested in accordance with ASTM C31 and ASTM C39.

A = full payment

B = pay reduction = $[(f'_c - f'_{cyl})/f'_c] \times \text{contract unit price for concrete per yd}^3 \times \text{number of yds}^3 \text{ the concrete represents}]$ or \$500, whichever is greater.

C = pay reduction = $[(f'_c - f'_{cyl})/f'_c] \times 5 \times \text{Contractor's invoice price for concrete per yd}^3 \times \text{number of yds}^3 \text{ the concrete represents}]$ or \$500, whichever is greater.

D = The Contractor shall submit an investigative plan stamped by a Virginia-licensed Professional Engineer outlining how the Contractor shall demonstrate that the in-place concrete meets the structural strength requirements of the design. For barriers, parapets, railings, etc., no reduction in concrete strength below $0.9f'_c$ shall be allowed. For all other applications, the investigative plan must be approved by the Department's Engineer prior to the execution of the investigation. All costs associated with this investigation shall be borne by the Contractor. After the investigation is completed, a report shall be submitted to the Engineer showing the results of the analysis, testing and conclusions of the Virginia-licensed Professional Engineer and recommendations for action proposed by the Contractor to be taken with the concrete that did not meet the strength requirements. The Department retains all rights to determine if the action proposed with regard to the concrete in question is acceptable. If the Department concurs with the proposed action and the concrete meets the structural strength requirements of the design and remains in place, any price reduction will be taken by Method B if the concrete is a pay item or Method C if the concrete is not a pay item. If the concrete does not meet the structural requirements of the design, the concrete shall be removed and replaced at no cost to the Department. The maximum penalty assessed for low strength concrete left in place will be 10% as specified in Table II-17A not including the cost of the investigation and any corrective measures taken by the Contractor.

No calculated penalty less than \$500 will be assessed. The Contractor shall have the right to remove and replace concrete failing to meet specifications at the Contractor's cost.

Before concrete is placed, the Contractor shall provide a storage chamber at his expense for temporary storage of the Department's concrete cylinders. The contractor shall be responsible for maintaining the chamber such that the concrete test cylinders are kept in a continuously moist condition and within a temperature range of 60 degrees F to 80 degrees F. The chamber shall be equipped with a continuously recording thermometer accurate to ± 2 degrees F for the duration of concrete cylinder curing. The chamber shall be located in an area where the test cylinders will not be subject to vibration and shall be of sufficient size or number to store, without crowding or wedging, the required number of test cylinders as determined by the Contractor based on his plan of operations. Location of the chamber is subject to approval by the Engineer.

When use of high-early-strength hydraulic cement concrete is required, it shall conform to the requirements specified in Table II-17 except that the 28-day strength shall be obtained in 7 days. Up to 800 pounds per cubic yard of Type I, Type II or Type III cement may be used to produce high-early-strength concrete.

- (c) **Concrete Temperature** shall be measured in accordance with the requirements of ASTM C1064.

- (d) **Quality Assurance** for Low Permeability Concrete:

General:

At least two trial batches, using job materials, with permissible combination of cementitious materials shall be prepared, and test specimens shall be cast by the Contractor and tested by the Department for permeability and strength at least a month before the field application. The permeability samples shall be cylindrical specimens with a 4-inch diameter and at least 4-inches in length. Cylinders will be tested at 28 days in accordance with VTM 112. The test value shall be the result of the average values of tests on two specimens from each batch. Permeability values obtained from trial batches shall be 500 coulombs below the maximum values specified in Table II-17 of the Specifications to be acceptable.

Acceptance Tests:

For each set of cylinders made for compressive strength tests, two additional cylinders shall be made for the permeability test. The Department will be responsible for making and testing all permeability test specimens.

If the average permeability test result is equal to or less than the value for the specified class of concrete in Table II-17, then full payment will be made for the lot the average permeability test result represents. However, if the average permeability test result exceeds the coulomb value in Table II-17, payment for that lot of concrete shall be reduced by 0.005 percent for each coulomb above the coulomb value in Table II-17 multiplied by the bid item cost of the concrete times the number of cubic yards or cubic meters of concrete in the lot. The reduction in price will not exceed 5 percent of the bid price of the concrete. Any concrete with a coulomb value that exceeds the maximum required in Table II-17 by 1000 coulomb will be rejected. However, bridge deck concrete with any coulomb value exceeding the maximum required by over 1000 coulomb may be accepted by the Engineer at 95 percent of the bid price if the concrete in question has the required strength and meets other specification requirements, and the Contractor applies, at his own expense, an approved epoxy concrete overlay to the top of the entire deck. In such case deck grooving will not be required. Epoxy overlays over latex overlays will not be permitted. The adjustment to the roadway grade shall be made as required by the Engineer at the Contractor's expense.

Similarly, concrete in abutments and pier caps with coulomb value exceeding the maximum required in Table II-17, by more than 1000 coulomb may be accepted at 95 percent of the bid price if it has the required strength and meets other specification requirements, and the Contractor applies at his own expense, one coat of Type EP-3B and one coat of EP-3T in conformance with the requirements of Section 243.02 of the Specifications, on top of the pier cap or abutment seat.

Section 217.09(b) Ready Mixed Concrete is amended to replace the second paragraph with the following:

Each load of transit or shrink-mixed concrete shall be accompanied by Form TL-28 signed by the VDOT Certified Concrete Field Technician or a designated company representative working under the direction of the VDOT Certified Concrete Field Technician. The form shall be delivered to the Inspector at the site of the work. Loads that do not carry such information or that do not arrive in satisfactory condition shall not be used.

Section 217.09(b) Ready-Mixed Concrete is amended to replace the fourth paragraph and the table with the following:

Each batch of concrete shall be delivered to the site of work and discharged within 90 minutes of the time the cement is introduced into the mixture unless approved otherwise by the Engineer.

Section 217.09(b)1. Transit mixing is amended to replace the first paragraph with the following:

1. **Transit mixing:** Concrete shall be mixed in a truck mixer. Mixing shall begin immediately after all ingredients are in the mixer and shall continue for at least 70 revolutions of the drum or blades at the rate of at least 14 but no more than 20 revolutions per minute.

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS

SUPPLEMENTAL SECTION 226—STRUCTURAL STEEL

SECTION 226—STRUCTURAL STEEL of the Specifications is amended as follows:

Section 226.02(b) Other Structural Steel is replaced with the following:

- (b) **Other Structural Steel:** Unless otherwise specified, steel for other structural members except H-piles shall conform to the requirements of ASTM A36. H-piles shall conform to the requirements of ASTM A572 or ASTM A992. One copy of the mill analysis shall accompany steel piles shipped to the project site. Three copies of the mill analysis for structural steel members shall be submitted to the Engineer.

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS

SUPPLEMENTAL SECTION 238—ELECTRICAL AND SIGNAL COMPONENTS

SECTION 238 ELECTRICAL AND SIGNAL COMPONENTS of the Specifications is amended as follows:

Section 238.02(f) Electrical and Signal Junction Boxes is replaced with following:

(f) **Electrical and Signal Junction Boxes:**

Boxes, frames and covers shall be water resistant. Covers shall be secured with stainless steel bolts and fasteners. Covers shall be flush with surface of the junction box and not protrude above the top of the junction box flange.

Junction box bolt attachment holes shall be drilled through to prevent debris from collecting in the threaded bolt holes.

Junction boxes shall be tested and certified by an independent testing laboratory as meeting the requirements indicated herein for approval for use. Independent testing laboratory shall be approved by VDOT Materials Division prior to testing. The Contractor shall furnish the Engineer documentation of such test results.

Testing reports shall provide complete test results for the type of design testing indicated for the respective type of junction box.

Junction Boxes for deliberate traffic in the roadway applications:

- Concrete shall conform to the requirements of Section 217 of the Specifications and shall be designed to meet the provisions of AASHTO's *Standard Specifications for Highway Bridges* for HS20 loading. Concrete shall have a design minimum compressive strength of 4000 psi.
- Gray Iron frame and covers shall conform to the requirements of Section 224 of the Specifications.

Junction Boxes for off roadway applications:

- Shall conform to the requirements of ANSI/SCTE 77 2007 and tier 15 loading. Boxes shall be open bottom.
- Shall be Polymer concrete with straight sides or Polymer concrete with flared or straight fiberglass sides.
- Other materials may be submitted for the sidewalls provided they conform to the requirements of ANSI/SCTE 77 2007 and tier 15 loading.

Junction Boxes frames and covers for bridge structures encasements shall be one of the following types:

1. Steel castings conforming to the requirements of Section 224 of the Specifications, galvanized inside and out.
2. Welded sheet steel having a thickness of at least 3/16 inch or 7 gage, galvanized inside and out.

3. Polymer concrete with fiberglass sides or all polymer concrete.

Section 238.02(h)6.f. Light Emitting Diode (LED) traffic signal head sections is amended to replace the third paragraph with the following:

LED arrow traffic signal modules shall conform to the requirements of the *ITE Vehicle Traffic Control Signal Heads – Light Emitting Diode Vehicle Arrow Traffic* issued April 3, 2006 (inclusive of any ITE documents that amend, revise and/or supersede it).

And to replace the seventh paragraph with the following:

The LED's shall be mounted and soldered to a printed circuit board. Modules shall be provided with an external in-line fuse or internal fusing of the 120 VAC (+) input. The fuse shall be rated in accordance with the LED module manufacturer. The LED signal module shall utilize the same mounting hardware used to secure the incandescent lens and gasket assembly and shall only require a screwdriver or standard installation tool to complete the mounting.

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS**SUPPLEMENTAL SECTION 245—GEOSYNTHETICS**

SECTION 245—GEOSYNTHETICS of the Specifications is amended as follows:

Section 245.03(a) Geotextile Fabric for Use in Silt Fences, Silt Barrier s, or Filter Barrier s is replaced with the following:

- (a) **Geotextile Fabric for Use in Silt Fences, Silt Barriers, or Filter Barrier s:** Geotextile shall be a woven fabric with monofilament yarns only and function as a vertical; permeable interceptor designed to remove suspended soil from overland water flow. Fabric shall filter and retain soil particles from sediment-laden water to prevent eroding soil from being transported off the construction site by water runoff. Fabric shall contain ultraviolet inhibitors and stabilizers to provide at least 6 months of expected, usable construction life at a temperature of 0 degrees F to 125 degrees F. The tensile strength of the material after 6 months of installation shall be at least 50 percent of the initial strength.

Physical Property	Test Method	Requirements
Filtering efficiency	VTM-51	Min. 75%
Flow rate	VTM-51	Min. 0.2 gal/ft ² /min

In addition to these requirements, the geotextile shall comply with the requirements of AASHTO M288 for temporary silt fence property requirements, Table 7, for grab strength and ultraviolet stability.

—DIVISION III— ROADWAY CONSTRUCTION—

——STANDARD 300 SERIES SPs (SPECIAL PROVISIONS)——

VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION FOR
NO PLAN AND MINIMUM PLAN CONCEPT

December 6, 2007cc
Reissued July 2008c

I. DESCRIPTION

This work shall consist of all construction or reconstruction activities in accordance with the applicable requirements of the Specifications, except where otherwise specified in this provision, and in conformity with the lines, grades and typical sections shown or established by the Engineer. This work shall include clearing and grubbing; excavation within the area of the typical section(s), construction of embankments and shoulders, construction of connections with intersecting roads, streets and entrances, both public and private, and the construction of all ditches and channels within the area of the right-of-way or easements. Unless otherwise specified, this work shall include the removal and disposal of existing road surface material, abandoned pipe culverts and minor structures. The existing road surface material shall be salvaged and used for maintenance of traffic, except when the Engineer determines that this condition is impractical.

II. MATERIALS

Materials shall be in accordance with the applicable requirements of the Specifications, except as otherwise specified in this provision or elsewhere in the contract documents.

III. TESTING

Testing on this project will be in accordance with the policy for testing on no plan and minimum plan projects in Sections 207 and 208 of the Specifications and the Material Division's Manual of Instructions.

IV. PROCEDURES

The Contractor shall perform all construction or reconstruction activities in accordance with the applicable requirements of the Specifications, except as specified as follows:

The roadway centerline shall be in accordance with the centerline shown on the plans or established by the Engineer. The grade shall generally follow that shown on the plans. In the absence of a grade line on the plans, the proposed grade shall generally follow the existing grade as directed by the Engineer. The approximate depth of centerline cuts and fills shall be obtained from the plans, except that at certain locations and at the discretion of the Engineer, a minimum number of centerline grade stakes may be furnished by the Department whereby the approximate depth of centerline cuts and fills may be obtained therefrom. Slope tolerances specified in the Specifications are waived; however, all disturbed slopes shall be uniformly grooved or rough graded as directed by the Engineer.

The roadbed shall be shaped and worked until it is smooth and free from large clods or other material unfit for use in the road bed. Sharp breaks in the roadbed shall be eliminated and the final grade shall be compacted. The maximum gradient on all connections with intersecting roads, streets and entrances shall not exceed 10 percent, unless otherwise noted on plans or directed by the Engineer. Ditchlines shall be graded to facilitate drainage and to prevent the impoundment of water.

Excess material from slides, ditches and channels, slopes or drainage easements, and unsuitable material cut from below grade, which cannot be used to flatten fill slopes within the right-of-way or easements, shall be disposed of by the Contractor in accordance with Section 106.04 of the Specifications.

The construction or clean out of ditches or channels extending beyond the roadway right-of-way, the removal and disposal of slide material and the removal and disposal of unsuitable material required to be removed from below subgrade will be classified as extra excavation.

V. MEASUREMENT AND PAYMENT

Measurement and payment for items of work shall be in accordance with the applicable requirements of the Specifications, except as specified as follows:

Grading will be paid for at the contract lump sum price, which price shall be full compensation for mobilization when not specified as a separate bid item; for the cost of clearing and grubbing; for all regular excavation; for construction of embankments, grading of unpaved shoulders and ditches and channels; for allaying of dust when not specified as a separate bid item; for removal and disposal of excess or unsuitable material above grade; and for removal and disposal of existing minor structures and roadway surface materials.

Extra excavation, when specified as a bid item, will be measured in cubic yards in accordance with Section 109.01 of the Specifications and will be paid for at the contract unit price per cubic yard; which price shall be full compensation for performing the required excavation and disposing of material in accordance with Section 106.04 of the Specifications or as directed by the Engineer. When not specified as a contract bid item, extra excavation will be paid for at the unit price of \$15 per cubic yard.

Payment will be made under:

Pay Item	Pay Unit
Grading	Lump Sum
Extra Excavation	Cubic Yard

—DIVISION IV— BRIDGES AND STRUCTURES—

None

—DIVISION V– INCIDENTAL CONSTRUCTION—

——500 SERIES SPCNs (SPECIAL PROVISION COPIED NOTES)——

None

——STANDARD 500 SERIES SPs (SPECIAL PROVISIONS)——

None

——500 SERIES SSs (SUPPLEMENTAL SPECIFICATIONS)——

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS

SUPPLEMENTAL SECTION 512—MAINTAINING TRAFFIC

SECTION 512—MAINTAINING TRAFFIC of the Specifications is amended as follows:

Section 512.03(a) Signs is amended to replace the last paragraph with the following:

When construction signs are covered to prevent the display of the message, the entire sign shall be covered with silt fence or other materials approved by the Engineer such that no portion of the message side of the sign shall be visible. Plywood shall be used on ground-mounted construction signs only. Attachment methods used to attach the covering material to the signs shall be of a durable construction that will prevent the unintentional detachment of the material from the sign. At no time shall a construction sign and/or post be rotated to prevent the display of the message. In addition, the posts where the signs are being covered shall have two ED-3 Type II delineators mounting vertically on the post below the signs at a height of 4 feet to the top of the topmost delineator. The bottom delineator shall be mounted 6 inches below the top delineator.

Section 512.03(b) Flagger Service and Pilot Vehicles is amended to replace the last paragraph with the following:

Portable traffic control signals conforming to the requirements of Section 512.03(h)2 of the Specifications may be used in lieu of flagger service when specified or approved by the Regional Traffic Engineer. When portable traffic control signals are used in lieu of flagger service, the portable traffic control signals will be measured and paid for separately.

Section 512.03(e)b. Group 2 devices is amended to replace the first paragraph with the following:

- b. **Group 2 devices** shall be drums or vertical panels. Drums shall be round, or partially round with no more than one flat side; made from plastic; have a minimum height of 36 inches, have a cross-sectional width no less than 18 inches in any direction; and conform to the requirements of the *Virginia Work Area Protection Manual*. Drums shall be designed to allow for separation of ballast and drum upon vehicular impact but not from wind and vacuum created by passing vehicles. Drums of two-piece design, i.e., drum and associated base, shall utilize sufficient amounts of enclosed sand at the base in accordance with the manufacturer's recommendations to provide stable drum support. The base shall be not greater than 5 inches in height. Two-piece drums may also utilize a flared drum foundation and collar of not more than 5 inches in height and of suitable shape and weight to provide stable support. One-piece drums may be used provided they comply with these above requirements.

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

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

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

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

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

Section 512.04 Measurement and Payment is amended to replace the pay item and corresponding pay unit for “**Eradication of existing pavement markings**” with the following:

Eradication of existing pavement markings will be measured in linear feet of a 6-inch width or portion thereof as specified herein. Widths that exceed a 6-inch increment by more than 1/2 inch will be measured as the next 6-inch increment. Measurement and payment for eradication of existing pavement markings specified herein shall be limited to linear pavement line markings. Eradication of existing pavement markings will be paid for at the contract unit price per linear foot. This price shall include removing linear pavement line markings and disposing of residue.

Eradication of existing nonlinear pavement markings will be measured in square feet based on a theoretical box defined by the outermost limits of the nonlinear pavement marking. Nonlinear pavement markings shall include but not be limited to stop bars, arrows, images and messages. Eradication of existing nonlinear pavement markings will be paid for at the contract unit price per square foot. This price shall include removing nonlinear pavement markings and disposing of residue.

Payment will be made under:

Pay Item	Pay Unit
Eradication of existing pavement marking	Linear foot
Eradication of existing nonlinear pavement marking	Square foot

—DIVISION VI— ROADSIDE DEVELOPMENT—

None

—DIVISION VII— TRAFFIC CONTROL DEVICES—

——**SELECT USE 700 SERIES SPs (SPECIAL PROVISIONS)**——

——STANDARD 700 SERIES SSs (SUPPLEMENTAL SPECIFICATIONS)——

VIRGINIA DEPARTMENT OF TRANSPORTATION
2007 ROAD AND BRIDGE SUPPLEMENTAL SPECIFICATIONS

SUPPLEMENTAL SECTION 700—GENERAL

SECTION 700—GENERAL of the Specifications is amended as follows:

Section 700.02(i) the first sentence is replaced with the following:

Poles, posts, and overhead sign structures shall conform to the following:

Section 700.02(i)2. is replaced with the following:

2. **Overhead sign structures, signal poles (mast arm and strain), and high-mast lighting poles** shall be steel.

Section 700.02(i) 4. Poles, posts, and overhead sign structures is replaced with the following:

4. **Sign posts** shall be wood or steel. Square tube post shall be hot-rolled, carbon sheet steel, structural steel quality, conforming to the requirements of ASTM A 1011, Grade 50 except the yield strength after cold-forming shall be 60,000-psi minimum. Steel mounting brackets shall conform to the requirements of ASTM A36. Posts (inside and outside) shall be galvanized in accordance with the requirements of ASTM A653, Coating Designation G-90.

Section 700.02(i) the first and second paragraph is replaced with the following:

Lighting, signal, pedestal poles; sign posts; and overhead sign structures not designed to support variable message signs shall conform to the requirements of the 1994 Edition of AASHTO's *Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals*.

Overhead sign structures, including "butterfly" structures, designed to support variable message signs shall conform to the requirements of the 2001 Edition of AASHTO's *Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals* and the following clarifications:

- Basic wind speed shall be used in the designs. The alternate method for wind pressures provided in Appendix C shall not be used.
- When the installation location of the structures lies between isotachs, the basic wind speed shall be determined by using the higher adjacent isotach.
- Any optional design parameters indicated in the AASHTO specification that are "allowed when acceptable to the owner" shall not be used for the designs.

Steel poles, posts, and overhead sign structures shall be hot-dip galvanized after fabrication. Except when shop painting is required, steel poles and posts shall be given one shop coat of primer and two field coats of paint and the galvanization finish of overhead sign structures shall be field treated for paint retention and two coats of paint applied.

Section 700.04(a)1. Grounding Electrodes is amended to replace the seventh paragraph with the following:

- The Contractor shall install a junction box at the primary grounding electrode location for access to the electrode for connection and testing. Grounding electrode conductors shall be installed under the bottom flange of the junction box. The grounding electrode shall be

centered in the bottom of the junction box with a minimum of 6 inches exposed. The junction box cover shall have the letters "VDOT ELEC" cast in the depression on the top.

Section 700.04(a)2. Grounding electrode testing is replaced with the following:

2. **Grounding electrode testing:** Primary grounding electrodes shall be tested after each 10-foot grounding electrode and/or section thereof is installed using the fall of potential (three-point measurement) method. After the primary grounding electrode is installed and tested, the Contractor shall connect to the augmented electrode(s) to conduct a system test. The Contractor shall disconnect the grounding electrode conductor from the service equipment ground bus and bonding bushing before testing the grounding electrodes/system. The Contractor shall test the grounding electrode as required by the manufacturer's instructions for the type of earth testing equipment. The Contractor shall record the readings on a form provided by the Regional Traffic Engineering Office. The completed form shall be signed and submitted to the Engineer after installation of the electrical service grounding.

Section 700.04(e) Poles, Posts, and Sign Structures is amended to include the following:

Square tube sign post shall have 7/16-inch (+/- 1/64-inch) openings or knockouts spaced 1-inch on centers on all four sides. When specified on the plans a 2 3/16-inch inner-post shall be used with the 2 1/2-inch post for additional strength. The inner-post shall be no less than 6 feet long.

Where posts are to be mounted on a retaining wall or barrier, the Contractor shall provide a mounting bracket, fabricated from steel conforming to the requirements of ASTM A36 and hot dipped galvanized in accordance with ASTM A123. Mounting bracket shall be designed so no connection to the barrier is made on the traffic side of the barrier and shall be secured to the barrier and wall using stainless steel chemically adhesive anchors.

Section 700.04(g)1. Electrical service and lighting conductor identification is amended to replace the fifth paragraph with the following:

Color-coding shall be as follows:

2-wire circuits, 120 Volts; 3-wire circuits, 120/240 Volts; 3-phase, 4-wire wye circuits, 208/120 Volts and; 3-phase, 4-wire delta circuits, 240 Volts

Circuit Designation	Color Code
Phase A or Line A	Black
Phase B or Line B	Red or orange*
Phase C	Blue
Grounded Conductor (Neutral)	White or gray** (see exception above)
Equipment Grounding Conductor	Bare, green, or green with one/more yellow stripes

3-phase, 4-wire wye circuits, 480/277 Volts; 3-phase, 3-wire delta circuits, 480 volts

Circuit Designation	Color Code
Phase A	Brown
Phase B	Orange
Phase C	Yellow
Grounded Conductor (Neutral)	White or gray** (see exception above)
Equipment Grounding Conductor	Bare, green, or green with one/more yellow stripes

* For 3-phase, 4-wire delta circuits, Phase B shall be the high leg and shall be orange.

** For outer covering of conductors of different systems that is contained within the same enclosure, refer to Article 200 of the NEC.

Section 700.04(h) Conduit Systems is amended to include the following:

When a conduit enters a box, fitting, or other enclosure, a bushing shall be provided to protect the conductor cable from abrasion unless the design of the box, fitting, or enclosure is such to afford equivalent protection of the conductor cable.

Section 700.04(h)2. Buried conduit systems is amended to replace the second paragraph with the following:

When conduit is to be installed under an existing roadway, entrance, or fixed object and open cutting is not permitted, conduit shall be installed by an approved directional boring method. Conduit for the directional boring method shall be PVC designed specifically for the directional boring operation or high-density PE. When the plans show more than one conduit at a location to be installed by directional boring, with the Engineers approval the Contractor may elect to install multiple conduits into a single bore at no additional cost to the Department.

MAXIMUM PILOT OR BACK REAMER BIT DIAMETER WHEN ROATED 360°	
NOMINAL INSIDE PIPE DIAMETER INCHES	BIT (REAMER) DIAMETER INCHES
1 - 2"	4" BORE HOLE
2 - 2"	5" BORE HOLE
3 - 2"	8" BORE HOLE
1 - 3"	5" BORE HOLE
2 - 3"	6 ½ " BORE HOLE
3 - 3"	8" BORE HOLE
1 - 4"	6 ½ " BORE HOLE

The Contractor shall use an approved stabilizing agent mixed with potable water to create the drilling fluid (mud slurry) for lubrication and soil stabilization. The fluid viscosity may vary to best fit the soil conditions encountered. Do not use any chemicals or polymer surfactants in the drilling fluid without written consent from the Engineer. The Contractor shall certify to the Engineer in writing that any chemical added to the drilling fluid is environmentally safe and not harmful or corrosive to the conduit system.

The Contractor may elect to use the jacked method to install a pipe sleeve for installation of the required conduit at no additional cost to the Department.

If an obstruction is encountered during the directional boring or jacking operation that requires abandonment of the hole (tunnel), it shall be backfilled with a flowable fill immediately, at no additional cost to the Department.

Section 700.04(i) Junction Box Covers is replaced with the following:

(i) **Junction Boxes** shall be installed as follows:

The junction box site shall be excavated such that the depth of the excavation shall be the height of the junction box plus at least twelve inches to allow for bedding aggregate material and such that the width shall be six to eight inches wider than the junction box.

Bedding material shall be No. 68, No. 78, or No. 8 aggregate or Crushed Glass conforming to No. 78, or No. 8 gradation requirements. Aggregate shall be a minimum of twelve inches in depth and entirely cover the bottom of the junction box excavation. The bedding aggregate shall be leveled and tamped prior to installing the junction box.

Junction box shall be installed and leveled to grade prior to backfilling.

Prior to backfilling the interior of polymer concrete junction boxes (JB-S1, JB-S2 and JB-S3) shall be braced with 2 inch by 4 inch lumber using two braces across the width and one brace across the length of the box or as required by the manufacturer. Bracing shall be installed to facilitate removal once back filling and compaction have been completed. The Contractor shall remove internal bracing after the backfilling and compacting operation has been completed.

The cover of the junction box shall be installed prior to backfilling.

The junction box shall be backfilled and compacted around its perimeter utilizing six to eight inch horizontal lifts to where the concrete collar is to begin. Once the concrete collar has cured the remaining area around the collar shall be backfilled and compacted as stated above. Compaction shall be at least ninety percent of the theoretical maximum density as defined in Section 101.02 of the Specifications. A mechanical tamping device shall be used to compact the backfill and soil layer by layer around the perimeter of the junction box. The wheel of a backhoe or other type vehicle shall not be used for compaction of backfill and soil. The internal bracing shall be removed after backfilling and compaction has been completed. The area around the junction box shall be graded and restored as stated in the Specifications.

Junction boxes shall not be installed or backfilled in standing water. Backfill material shall be free of large stones, wood or other debris and shall not be saturated with water.

If a special tool or wrench is required to remove the cover, the Contractor shall furnish the Engineer with five such tools.

Section 700.05—Measurement and Payment for Concrete foundations is replaced with the following:

Concrete foundations will be measured and paid for in units of each or cubic yards of concrete as applicable. When paid for in cubic yards of concrete, no payment will be made for concrete in excess of the cubic yards of concrete required by the foundation design unless otherwise approved by the Engineer. This price shall include foundation design, concrete, reinforcing steel, stub poles, slip base, anchor sleeve, anchor bolts, bolt circle templates, grounding equipment, conduits, excavating, backfilling, compacting, disposing of surplus and unsuitable material, and restoring existing areas.

Section 700.05—Measurement and Payment for Overhead and bridge-mounted sign structures is replaced with the following:

Overhead sign structures will be measured in units of each and will be paid for at the contract unit price per each. This price shall include structural units and supports, hand holes and covers, grounding lugs, electrical systems including conduit and fittings, and identification tags.

Section 700.05—Measurement and Payment for, Junction boxes is replaced with the following:

Junction boxes will be measured in units of each and will be paid for at the contract unit price per each. This price shall include concrete collars, frames and covers, tools to remove the cover, ground rods, ground conductors, grounding lugs, knockouts, cable racks, bracing, aggregate, excavating, backfilling, compacting, disposing of surplus and unsuitable material, and restoring existing areas.

TIER 1 PROJECT
"NO PLAN" RAAP (CONSTRUCTION & MAINTENANCE) PROJECTS
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION: X **MAINTENANCE:**

DISTRICT: Hampton Roads CITY/COUNTY: Hampton UPC NO.: 84364

FUNCTIONAL CLASS Urban Principle Arterial/
Urban Minor Arterial FHWA 534 DATA 4E021 TYPE CODE N/A

ROUTE: Multiple PROJ. U000-114-167, P101 FEDERAL NO.: CM-5A03(608)

FROM: Multiple locations TO: N/A

LENGTH (FEET): N/A MILES N/A

TOPO: N/A DESIGN SPEED (MPH): N/A VPD (YEAR) N/A

PROJECT MGR: Martin Willson R/W DONATION: N/A

Utilities NO and/or Railroads NO are involved in the construction of this project.

This project is to be constructed in accordance with the Department's 2007 Road and Bridge Specifications, 2008 Road and Bridge Standards, 2009 MUTCD, 2011 Virginia Supplement to the MUTCD, 2011 Virginia Work Area Protection Manual and as amended by contract provisions and the complete plan assembly.

Design features relating to construction or to regulation and control of traffic may be subject to change as deemed necessary by the department.

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION		RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
		05-17-13	
DATE	DISTRICT PLANNING AND INVESTMENT MANAGER	DATE	CITY ENGINEER
		05-17-13	
DATE	DISTRICT PROJECT DEVELOPMENT ENGINEER	DATE	PROJECT MANAGER
APPROVED FOR RIGHT OF WAY ACQUISITION		APPROVED FOR CONSTRUCTION	
DATE	DISTRICT ADMINISTRATOR	DATE	DISTRICT ADMINISTRATOR

GENERAL NOTES

There are no identified areas within the right of way for the Contractor to store equipment and materials. The Contractor shall make arrangements for these areas according to City of Hampton policies. Copies of agreements between land owners and the Contractor must be submitted to the Engineer.

The Contractor shall be responsible for the management of traffic for work operations performed under this contract, and shall provide all necessary traffic control devices and safety equipment to make the conditions of work areas as safe as possible for all employees and the public.

The Contractor shall make every effort to maintain the existing travel lanes open to traffic at all times. The City of Hampton reserves the right to change any or all of the work hour restrictions as stated below when such changes are in the best interest of the traveling public.

INCIDENTALS

I-1 Clearing and grubbing shall be confined to those areas needed for construction. No trees or shrubs in ungraded areas shall be cut without the permission of the Engineer.

I-2 The Official Electronic .dwg Version of the plans will override the paper copies or prints of specific layers.

Portions of this plan assembly have been CADD generated. To assist in the construction of the project electronic files will be available to the prime contractor during bids and after award of the contract.

I-3 All electronic plan assemblies will include the construction plans in AutoCAD format (.dwg) files.

The AutoCAD format (.dwg) files are furnished only as information for the contractor. The AutoCAD files will only match the scanned files if all levels are turned on. An AutoCAD Software license is required to be able to read these files.

ROADSIDE DEVELOPMENT

(a) DESCRIPTION:

This work shall consist of providing erosion and siltation control for areas disturbed by excavation, trenching, grading or construction operations in accordance with this provision, *Virginia Erosion and Sediment Control Law, Regulations and Certification Regulations* and as directed by the Engineer.

(b) MATERIALS:

Silt fence shall be in accordance with Section 245 of the VDOT Specifications.

Seed shall be in accordance with Section 244 of the VDOT Specifications. The second sentence of the first paragraph of Section 244.02 (c) is deleted.

Fertilizer shall be in accordance with Section 244 of the VDOT Specifications.

Mulch shall be in accordance with Section 244 of the VDOT Specifications.

(c) PROCEDURES:

Prior to commencing excavation or grading operations the Engineer will review the area and direct the Contractor when and where any required erosion and siltation control devices shall be installed. All temporary silt fence specified will be measured and paid for in accordance with Section 303 of the VDOT Road and Bridge Specifications.

The Contractor shall exercise care when performing open trench or foundation excavations, the excavated material shall be confined along the open trench or foundation and all excavated material shall be used as backfill or removed from the construction site at the end of the day. Disposal of unsuitable material shall be in accordance with Section 106 of the VDOT Specifications. In the event the Contractor does not use the material as backfill or remove the material from the site at the end of the day, the Contractor shall install temporary silt fence at no additional cost to the City to prevent erosion.

The Contractor shall restore and seed areas disturbed by excavation, grading, or construction operations. Seeding shall be in accordance with Section 603 of the VDOT Specifications with the following seed mixes at the listed rates per acre:

Bristol, Culpepper, Fredericksburg, Lynchburg, Richmond, Salem and Staunton Districts				
FALL – WINTER 9-5 to 4-1			SPRING – SUMMER 4-1 to 9-5	
20 lbs. Winter Wheat or Barley (Nurse Crop)			10 lbs. Annual Ryegrass (Nurse Crop)	
100 lbs. Tall Fescue			100 lbs. Tall Fescue	

Slopes 2:1 or greater – Add 20 pounds of Crownvetch or Sericea Lespedeza to the above mix

Hampton Roads District				
FALL – WINTER 9-5 to 4-1			SPRING – SUMMER 4-1 to 9-5	
20 lbs. Winter Wheat or Barley (Nurse Crop)			10 lbs. Annual Ryegrass (Nurse Crop)	
100 lbs. Tall Fescue			100 lbs. Tall Fescue	
50 lbs. Bermudagrass (Unhulled)			50 lbs. Bermudagrass (Hulled)	

Slopes 2:1 or greater – Add 20 pounds of Sericea Lespedeza to the above mix

NOTE: Hard Fescue may be substituted for Tall Fescue

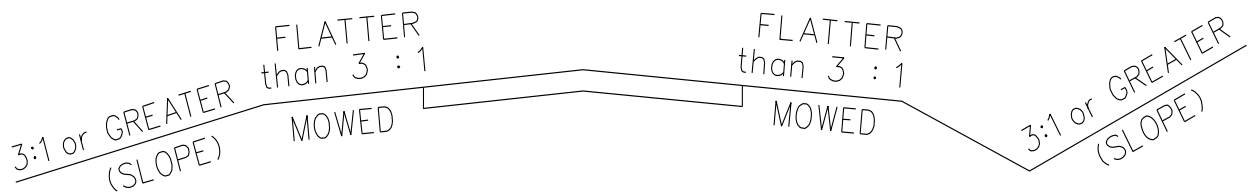
Mulch shall be applied at a rate of two-tons per acre in accordance with Section 603 of the VDOT Specifications.

Fertilizer shall be 15-30-15 applied at a rate of 600-pounds per acre in accordance with Section 603 of the VDOT Specifications.

The seeding shall include site preparation, seed, fertilizer, mulching; finishing and maintaining seeded areas until final acceptance, and restoring disturbed areas prior to final acceptance.

Roadside Development

Section of Seeding Locations



General Notes

The installation of some CCTV camera locations may involve activities that could disturb small areas of land that would require the re-establishment of grasses and /or legumes using the seeding requirements provided on the Roadside Restoration chart shown in Roadside Restoration.

Notes For Field Use Only

Over seeding rates shall be 100% of the seed mixture supplied without fertilizer.

The Engineer will require the Contractor to perform supplemental seeding when less than 75 percent uniform stand of the permanent grass specified in the mixture obtained. (Annual species such as, Rye and Millet are temporary varieties and require supplemental seeding.)

Notes That Apply To Schedule

Legume seed mixes (Birdsfoot Trefoil, Crown Vetch and Sericea Lespedeza) and weeping Lovegrass shall not be used on shoulders and other locations flatter than 3:1 slope.

Legume seed shall be inoculated with the appropriate strain and rate of bacteria. For hydroseeding, use five times the dry seeding rate of inoculant.

A temporary mix of erosion control mulch, as directed by the Engineer, is to be used only on areas that are to be regraded or later disturbed, if left dormant for more than 15 days.

Erosion Control Mulch, as directed by the Engineer, is to be used on areas that are to be left dormant for more than 15 days between December 1 and February 28.

Spring and Summer Fall and Winter defined for the purpose of determining whether hulled or unhulled Bermuda and Sericea Lespedeza seed is required:

Spring & Summer – 4/1 – 9/15 – use hulled seed

Fall & Winter – 9/15 – 4/1 – use unhulled seed

Type I mulch (Straw) to be used on newly seeded areas adjacent to all waterways, wetlands, swamps, or any area in which drainage flows toward areas under the jurisdiction of the environmental regulatory agencies.

Type I mulch shall be applied to provide a minimum 90% coverage.

Type I mulch shall be tacked with Fiber mulch at the rate of 750 lbs. per acre and/or mulch tackifier.

Type II mulch (Fiber mulch) may be substituted for Type I mulch at the recommendation of the District Roadside Manager.

Type II mulch shall be applied at a rate of 1500 lbs. (net dry weight) per acre to provide a minimum of 90 percent coverage, and shall be applied in a separate application.

Erosion Control Mulch, as listed on the VDOT Approved Products List, shall be applied in accordance with the manufacturer's recommendations.

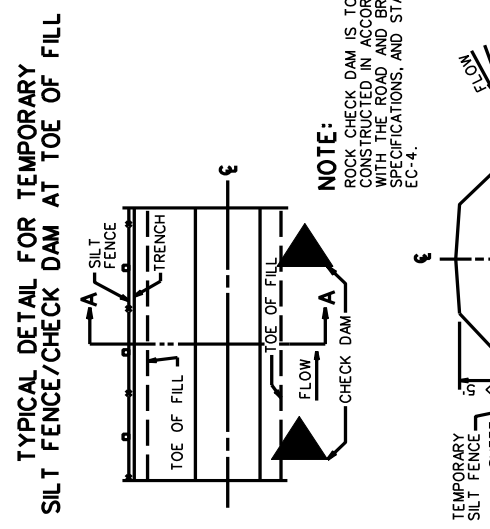
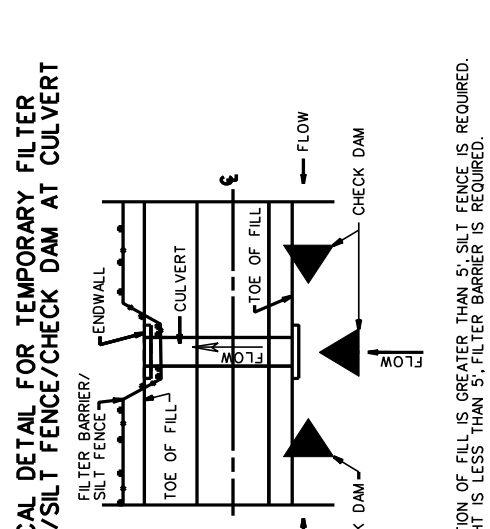
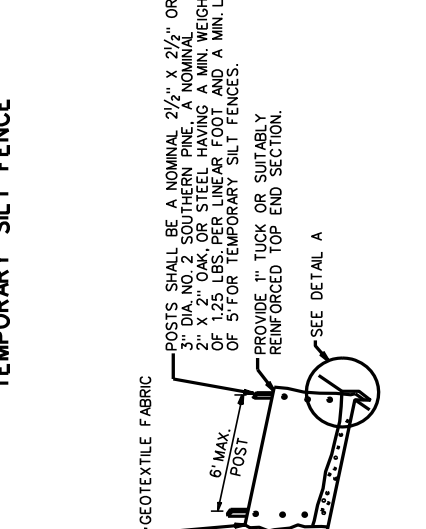
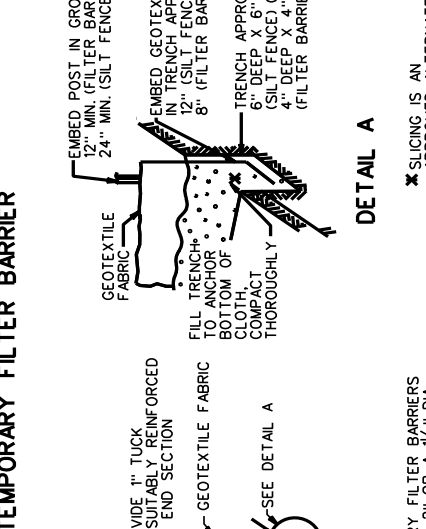
Erosion Control Mulch shall provide 100% coverage of all denuded areas.

All topsoil is to be free of hard lumps, clods, rocks and foreign debris and is to be hand raked to tie into existing lawns.

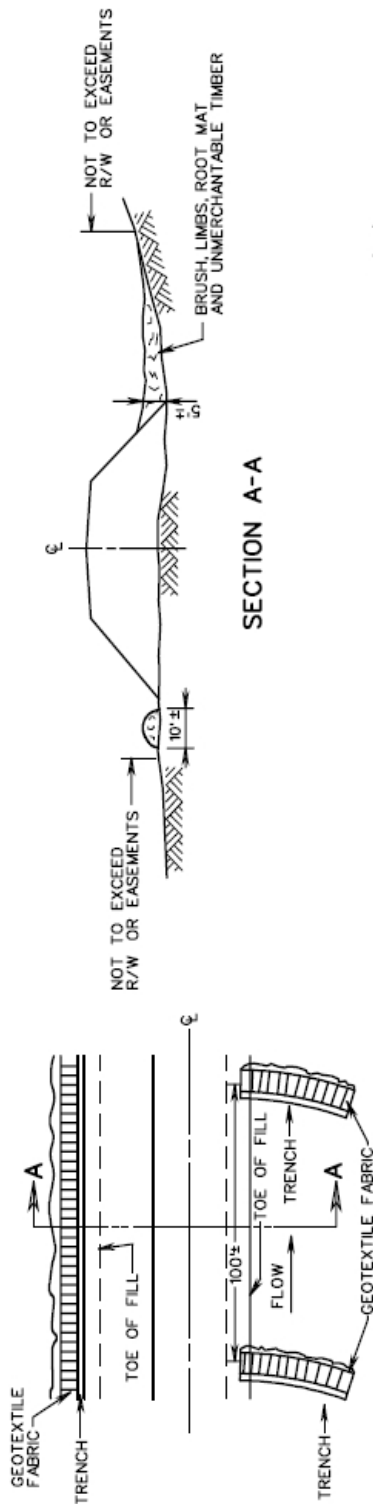
All seed must be in conformance with VDOT seed specifications for Grasses & Legumes and be provided at the project site in bags not opened and labeled for use on VDOT projects with a green tag certifying inspection by the Virginia Crop Improvement Association.

Temporary Silt Fence

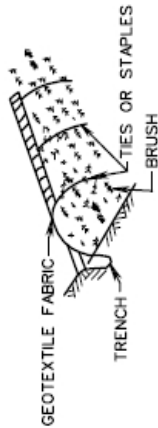
DESIGN FEATURES RELATING TO CONSTRUCTION OR REGULATIONS AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.

<div><p>TYPICAL DETAIL FOR TEMPORARY SILT FENCE/CHECK DAM AT TOE OF FILL</p><p>NOTE: ROCK CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4.</p></div>	<div><p>TYPICAL DETAIL FOR TEMPORARY FILTER BARRIER/SILT FENCE/CHECK DAM AT CULVERT</p><p>NOTES: 1. IF ANY PORTION OF FILL IS GREATER THAN 5', SILT FENCE IS REQUIRED. 2. IF FILL HEIGHT IS LESS THAN 5', FILTER BARRIER IS REQUIRED. 3. ROCK CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4.</p></div>	<div><p>TEMPORARY SILT FENCE</p><p>NOTE: POSTS SHALL BE A NOMINAL 2 1/2" X 2 1/2" OR A 3" DIA. NO. 2 SOUTHERN PINE. A NOMINAL 2" X 2" OAK OR STEEL HAVING A MIN. WEIGHT OF 1.25 LBS. PER LINEAR FOOT AND A MIN. LENGTH OF 5' FOR TEMPORARY SILT FENCES. PROVIDE 1" TUCK OR SUITABLY REINFORCED TOP END SECTION. SEE DETAIL A</p></div>	<div><p>TEMPORARY FILTER BARRIER</p><p>NOTE: SUPPORTS FOR TEMPORARY FILTER BARRIERS SHALL BE A NOMINAL 1" X 2" OR A 1/2" DIA. NO. 2 SOUTHERN PINE OR OAK OR STEEL HAVING A MIN. WEIGHT OF 1.00 LBS. PER LINEAR FOOT. PROVIDE 1" TUCK OR SUITABLY REINFORCED TOP END SECTION. SEE DETAIL A</p></div>	<div><p>TEMPORARY SILT BARRIERS FILTER BARRIER, SILT FENCE, AND BRUSH BARRIER</p><p>VIRGINIA DEPARTMENT OF TRANSPORTATION</p><p>VDOT ROAD AND BRIDGE STANDARDS</p><p>SHEET 1 OF 2 113.07</p></div>
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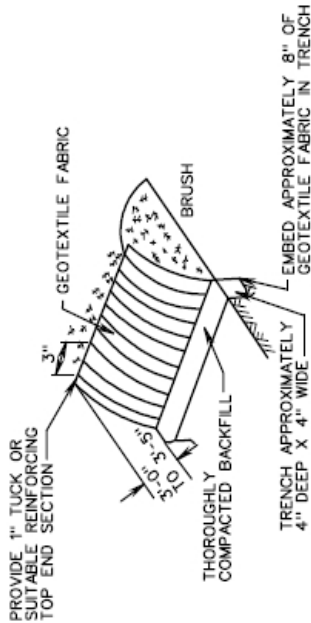
SILT BARRIERS **TYPICAL DETAIL FOR BRUSH BARRIER** **(TO BE USED AT ALL APPLICABLE LOCATIONS)**



SECTION A-A



BACK ISOMETRIC



FRONT ISOMETRIC

NOTES:

1. BRUSH BARRIERS SHALL BE CONSTRUCTED AT LOCATION SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. BRUSH SHALL BE PILED AGAINST EXISTING TREES TO PREVENT MOVEMENT OF BARRIER. BRUSH SHALL BE PILED AS TIGHTLY AS POSSIBLE AND WEIGHTED DOWN BY UNMERCHANTABLE LOGS.
2. GEOTEXTILE FABRIC CONFORMING TO THE ROAD AND BRIDGE SPECIFICATIONS SHALL BE INSTALLED AS DETAILED ABOVE. GEOTEXTILE FABRIC MAY ALSO BE ATTACHED TO EXISTING FENCES WHEN SPECIFIED ON THE PLANS OR DIRECTED BY THE ENGINEER.
3. NO BRUSH WILL BE DESTROYED OR REMOVED FROM THE PROJECT UNTIL ALL BRUSH SILT BARRIERS ARE IN PLACE AND HAVE BEEN INSPECTED AND APPROVED BY THE ENGINEER.
4. DIMENSIONS SHOWN ARE APPROXIMATE ONLY.

VDOT

ROAD AND BRIDGE STANDARDS

SHEET 2 OF 2 REVISION DATE

113.08

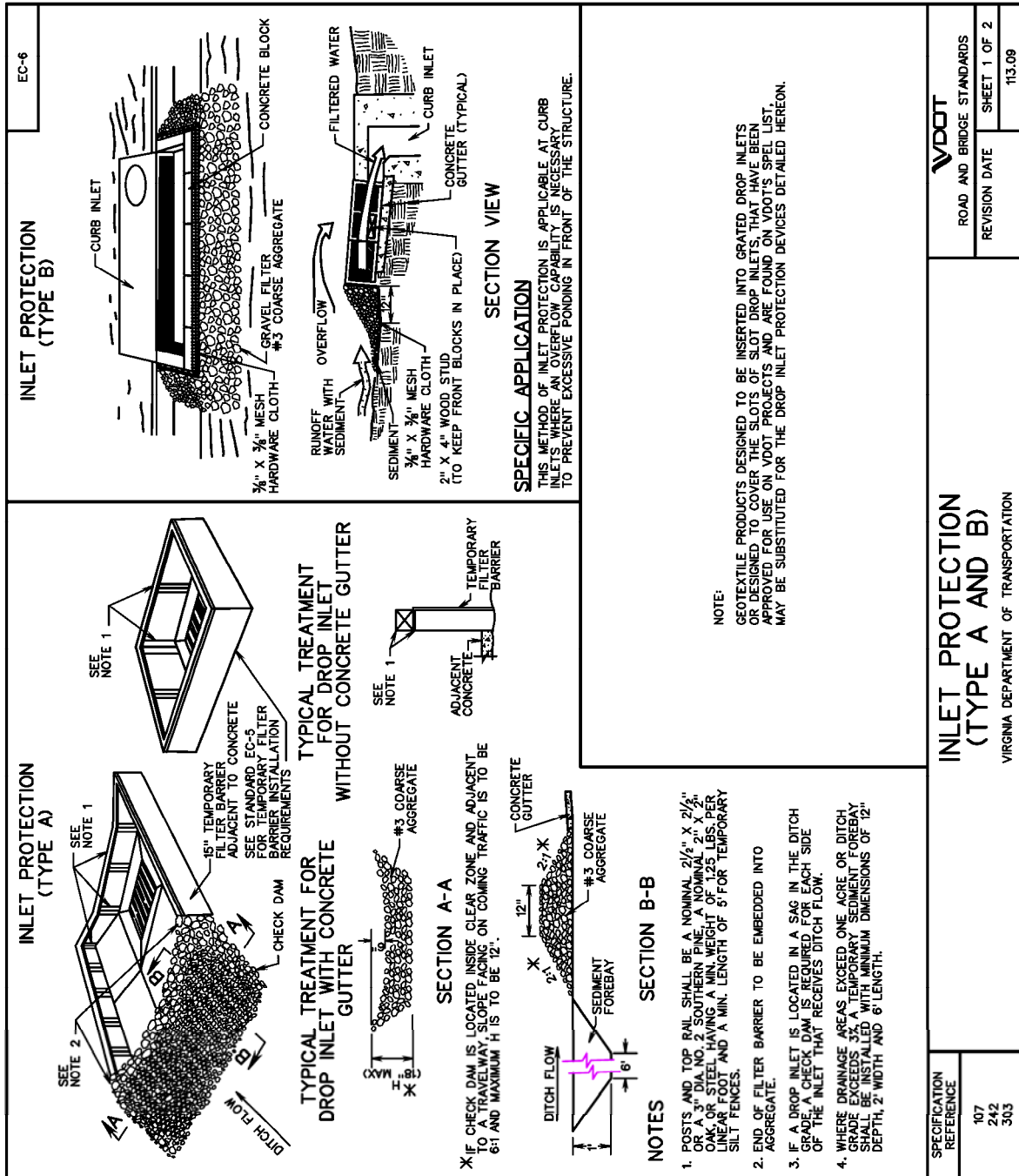
TEMPORARY SILT BARRIERS **FILTER BARRIER, SILT FENCE, AND BRUSH BARRIER**

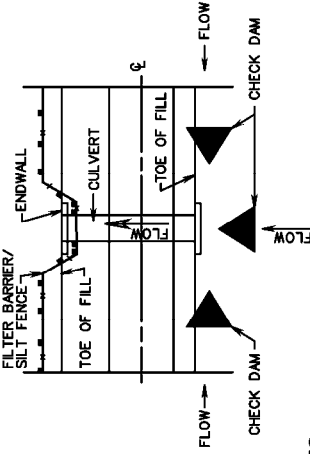
VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION
REFERENCE

107
303

Temporary Erosion Control



EC-6	<p>TYPICAL DETAIL FOR INSTALLATION OF TEMPORARY FILTER BARRIER/SILT FENCE/CHECK DAM AT CULVERT</p>  <p>NOTES:</p> <ol style="list-style-type: none"> 1. IF ANY PORTION OF FILL IS GREATER THAN 5' SILT FENCE IS REQUIRED. IF FILL HEIGHT IS LESS THAN 5' FILTER BARRIER IS REQUIRED. 2. ROCK CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4. 3. FILTER BARRIER/SILT FENCE IS TO BE INSTALLED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-5. <p>* INSTALLATION DETAIL ONLY - ROCK CHECK DAMS, FILTER BARRIER, AND SILT FENCE TO BE PAID FOR IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS.</p>	<table border="1"> <tr> <td> VDOT ROAD AND BRIDGE STANDARDS </td><td colspan="2"> INLET PROTECTION (TYPE C) VIRGINIA DEPARTMENT OF TRANSPORTATION </td></tr> <tr> <td> SHEET 2 OF 2 113.10 </td><td colspan="2"> </td></tr> <tr> <td></td><td></td><td> SPECIFICATION REFERENCE 107 242 303 </td></tr> </table>	VDOT ROAD AND BRIDGE STANDARDS	INLET PROTECTION (TYPE C) VIRGINIA DEPARTMENT OF TRANSPORTATION		SHEET 2 OF 2 113.10					SPECIFICATION REFERENCE 107 242 303
VDOT ROAD AND BRIDGE STANDARDS	INLET PROTECTION (TYPE C) VIRGINIA DEPARTMENT OF TRANSPORTATION										
SHEET 2 OF 2 113.10											
		SPECIFICATION REFERENCE 107 242 303									

Erosion and Sediment Control

(a) Project Description

The purpose of this project is to allow the City of Hampton to monitor traffic conditions at critical intersections throughout the City.

(b) Project Location

The project is located at various locations along arterials streets within the City of Hampton.

(c) Project Area

Project Right-of-Way Area: 0.05 Acres
Expected Area to Be Disturbed: 0.05 Acres

(d) Existing Site Conditions

The existing project vegetative cover consists of grass. The existing topography consists of asphalt concrete. The existing drainage patterns consist of inlets, pipes, ditches and basins.

Soils located within the project limits consist of the following types:

Soil Number	Site Number(s)	Soil Type per USDA-SCS	County Reference
1	47, 49	Altavista-Urban land complex	Hampton
2	51,	Augusta-Urban land complex	Hampton
10	48	Dragston-Urban land complex	Hampton
24	47	Tomotley-Urban land complex	Hampton
26	46, 48	Udorthents-Dumps Complex	Hampton
27	42, 43, 45, 46, 50	Urban Land	Hampton

Runoff from the project will discharge to: Existing drainage systems and stormwater management basins.

(e) Adjacent Areas

Areas adjacent to the project include: Roads, parking lots, and residential and commercial buildings.

(f) Critical Areas

Critical areas on the project consist of: None.

Stormwater runoff considerations for this project include: Temporary Silt Fence/Filter Barrier, Inlet Protection

The erosion and sediment control measures for this project can be seen in further detail in the VDOT Road & Bridge Standards, 2008 Edition. These controls are consistent with the requirements of the Virginia Erosion and Sediment Control Handbook, 1992 Edition.

The following E&S measures will be used to control runoff on this project:

- St'd. EC-5 (Temporary Silt Fence / Filter Barrier)
- St'd. EC-6 (Inlet Protection)

All erosion and sediment controls are to be installed, inspected, maintained, and removed in accordance with VDOT Specifications and Standards. Runoff from the cut slope shall be maintained in an established ditch, and controlled with the measures described in the Virginia E & S Control Handbook. If conditions exist where an established ditch cannot be maintained, runoff may be controlled, if approved by the Engineer or the Environmental Monitor, with either Temporary Silt Fence (TSF) or Temporary Filter Barrier (TFB) positioned on the roadway fill side. Alternately, where ditches cannot be maintained, existing storm system inlets downstream of disturbed areas shall be protected with Inlet Protection. If runoff from the cut side is controlled on the fill side with TSF or TFB, the existing roadway is to be stabilized with maintenance stone as required.

Site stabilization will be conducted in accordance with VDOT Specification 303.03(b), the Seed Schedule and Roadside Development notes.

The Contractor is responsible for complying with both VDOT Specifications 106.03 and 106.04 for all off-site support facilities.

(g) Contact Information

Weston S. Young, P.E.
Senior Civil Engineer - Stormwater
Department of Public Works

22 Lincoln Street
Hampton, VA 23669
(757)-727-6754

The project shall be stabilized in accordance with VDOT Specification 303.03(b).

All E&S controls shall be removed within 30 days after the project has been stabilized.

All referenced standards and E & S controls should conform to the latest edition of the VDOT Road and Bridge Standards.

For additional guidance on E & S controls, refer to I & IM LD-11.24

All disturbed areas will be stabilized with seed and mulch in accordance with the Roadside Development notes.

Seeding and Erosion and Sediment Control items identified in these General Requirements will be incidental to the contract and will be paid in accordance with the bid items herein.

Transportation Management Plan Requirements

Project Description

This project consists of the installation of CCTV cameras in the City of Hampton on arterial roadways.

The work shall be limited to existing City of Hampton right-of-way on the shoulder or within the media of each arterial. Temporary right and left independent lane closures may be required to install CCTV poles at each location.

Unless specified otherwise, the work zone shall be maintained in accordance with Section 512 Maintaining Traffic of the VDOT Road and Bridge Specifications.

A Type A Transportation Management Plan (TMP) is to be used for this project. It is intended as a guide and it is not meant to enumerate every detail which must be considered, but only to show the general handling of existing traffic.

The Contractor shall set up (establish) work zones and manage (control) traffic in accordance with the 2007 Road and Bridge Specifications, the Virginia Work Area Protection Manual, 2011 edition, and the Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition, revised May 2011.

Allowable Hours For Lane Closures

The Contractor shall make every effort to maintain the existing travel lanes open to traffic at all times. The following limits shall apply when lane closures are necessary:

Closures of one through lane on Coliseum Drive, Cunningham Drive, or Mercury Boulevard may be permitted between 8:30 A.M. and 4:00 P.M. and between 6:00 P.M. and 6:00 A.M., excluding Saturday and Sunday daytime hours, holidays, and from 12:00 noon the day before a holiday until 12:00 noon the day after a holiday.

Special Details

Lane closures shall be in accordance with the Virginia Work Area Protection Manual (VWAPM), 2011 edition. Times may change due to traffic conditions current at the time of the request for closure or the time of closure. In addition, these time frames are subject to change for emergency or extraordinary conditions as determined by the Engineer. The Contractor is responsible for obtaining approval for night work operations as required by local county and City noise ordinances. Any work scheduled between the hours of 9:00 PM and 6:00 AM must be approved by the Engineer in writing.

Temporary Traffic Control Notes

The Contractor shall submit Traffic Control Plans to the Engineer for approval. The Contractor should refer to the standards and Typical Traffic Control figures in Virginia's Work Area Protection Manual. Anticipated operations are as follows:

Mobile or Short Duration Shoulder Operation (TTC-3.0)

Stationary Operation on a Shoulder (TTC-4.0)

Shoulder Operation with Minor Encroachment (TTC-5.0)

Short Duration Operation on a Multi-Lane Roadway (TTC-15.0)

Outside Lane Closure Operation on a Four-Lane Roadway (TTC-16.0)

Inside Lane Closure Operation on a Four-Lane Roadway (TTC-17.0)

Turn Lane Closure Operation (TTC-29.0)

Interior Lane Closure Operation on a Multi-Lane Roadway (TTC-42.0)

And others, as appropriate

The Contractor shall coordinate lane closures with the Engineer and shall submit to the City a detailed proposed work zone plan by 10:00 AM each Wednesday for work that is planned for the upcoming week.

On the day the closure is scheduled, the inspector is responsible for calling the TOC directly at (757) 726-2831 to confirm the lane closure start/end times for each day of work. If scheduled work is no longer going to take place, the inspector shall notify TOC as soon as possible. The Contractor shall comply with any subsequent change in requirements that may be made by the Engineer regarding notification and submission of work zone closure requests

When Police presence is required for a lane closure operation, the Contractor shall contact the City of Hampton Police to request Police support and give the Police a minimum of 5 days advance notice. The Contractor shall notify the Police of any cancellation at least 24 hours in advance to avoid additional charges.

All traffic control devices and signs necessary for the maintenance of traffic are to be furnished, installed, maintained, and removed by the Contractor. The removal of all signs, equipment, and materials shall be accomplished prior to the ending closure time indicated or as otherwise directed by the Engineer.

All vehicles shall be equipped with at least one rotating or two high intensity amber lights. The light(s) shall only be displayed (in operation) when the vehicle is within the work zone, and when entering and exiting the work zone area, and it should be clearly visible to vehicles surrounding and following the amber lighted vehicle.

The Contractor shall consult with the Engineer for any planned work zone scenario not anticipated by this Transportation Management Plan.

Public Communications Plan

The Contractor shall provide advance notice of all lane closures to the Engineer who will communicate with respective stakeholders as determined appropriate.

Incident Response

The following is a list of local emergency contact agencies and procedures to respond to traffic incidents that may occur in the Work Zone:

Contractor will notify City of Hampton Police, City Inspector in Charge and the TOC.

911 Center: 911

City of Hampton Police (Non Emergency): (757) 727-6111

Traffic Operations Center: (757) 726-2831

Depending upon the severity of the incident, the Contractor may be required to temporarily shut down work operations.

Upon arrival on scene, Police will determine response necessary to guide the traveling public around the incident.

Inspector will notify Construction Manager or Construction Engineer of incident and take pictures as necessary, especially pictures of the Contractor's Work Zone to record and verify the proper setup.

Process of notification of incident to be followed is for the Contractor to call:

Project/Maintenance of Traffic Coordinator, To be provided at Pre-construction

Construction Manager, To be provided at Pre-construction

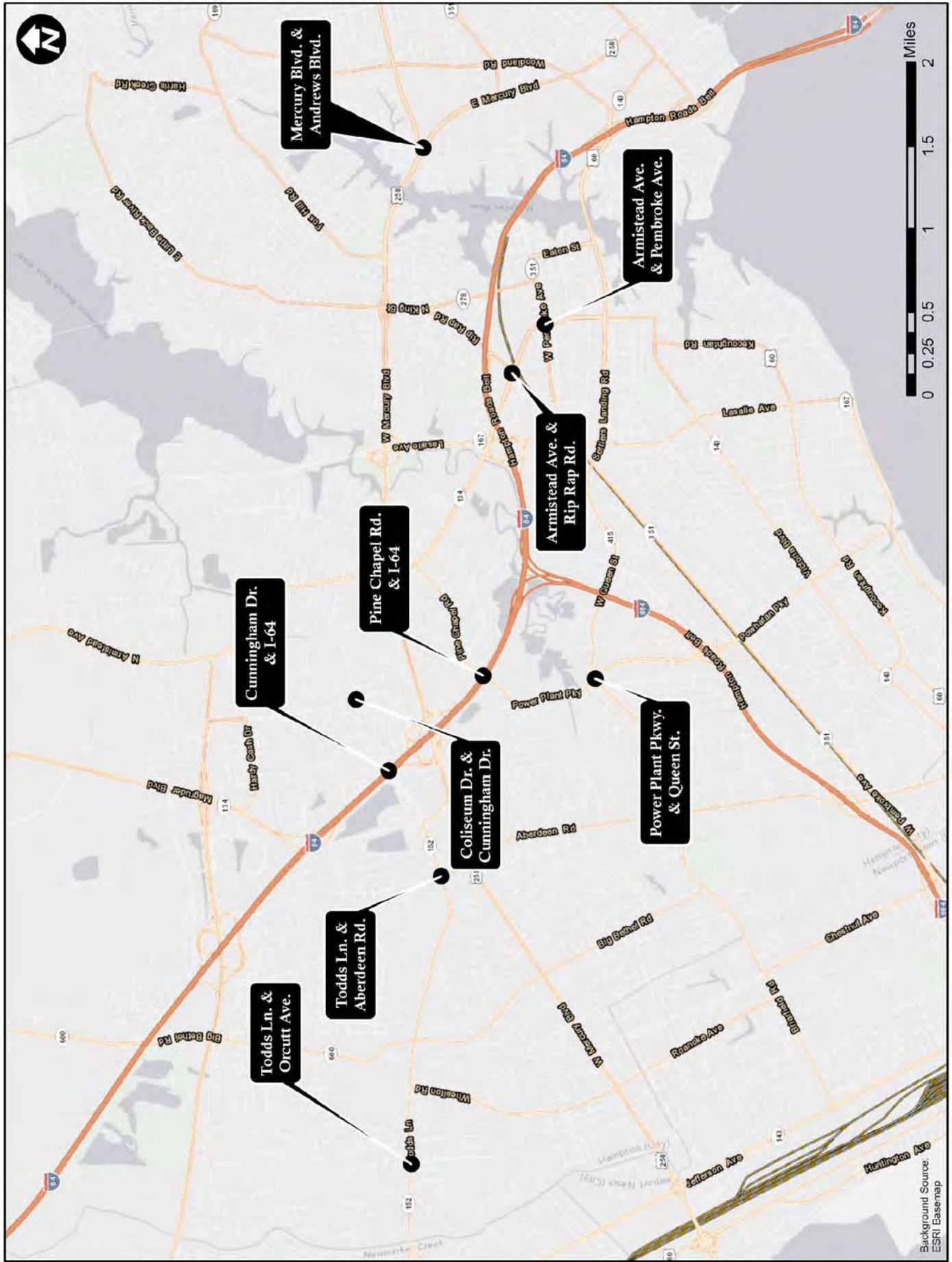
Construction Engineer, To be provided at Pre-construction

Work Zone Safety Coordinator, To be provided at Pre-construction

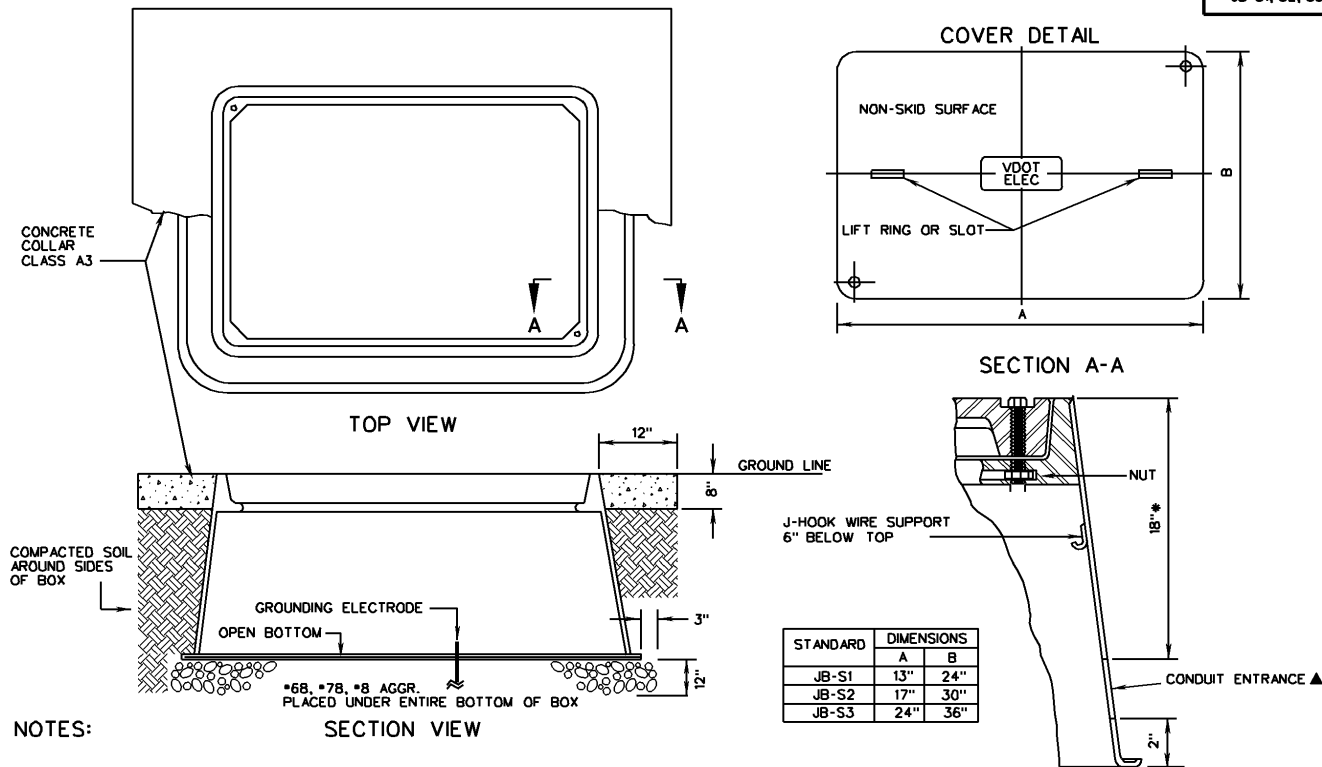
Traffic Engineer, To be provided at Pre-construction

Public Affairs Manager, To be provided at Pre-construction

The Police report of the incident will be reviewed by the Construction Engineer to determine if any modification of the Temporary Traffic Control Plan is necessary. If it is determined that it is necessary to alter the plan, then a meeting will be called with the Contractor, the Construction Engineer, City of Hampton personnel, and the Police (if necessary) to discuss modification and implementation of an improved traffic control plan.



JB-S1, S2, S3

**NOTES:**

JUNCTION BOXES MAY BE STRAIGHT OR FLARED WALL IN DESIGN. MATERIALS SHALL CONFORM TO SECTION 238 OF THE ROAD & BRIDGE SPECIFICATIONS.

BELL ENDS SHALL BE INSTALLED ON THE ENDS OF PVC CONDUITS.

GROUNDING BUSHINGS SHALL BE INSTALLED ON THE ENDS OF METAL CONDUITS.

BELL ENDS AND BUSHINGS SHALL BE PLUGGED TO PREVENT MOISTURE AND RODENT ENTRY.

*DEPTH OF CONDUIT ENTRANCE FOR USE OF MAGNETIC DETECTORS SHALL BE IN ACCORDANCE WITH STANDARD TD-2.

CONDUIT ENTRANCES SHALL BE LOCATED AS SHOWN ON THE PLANS.

THE COVER SHALL HAVE A NON-SKID SURFACE WITH LETTERS CAST IN THE DEPRESSION ON TOP. THE LETTERS "VDOT ELEC", "VDOT TRAF", "VDOT COMM" OR UTILITY AS APPLICABLE ARE TO BE 1" WIDE. COVERS USED FOR JUNCTION BOXES INSTALLED WITHIN MUNICIPALITIES AND NOT MAINTAINED BY VDOT SHALL NOT REQUIRE THE VDOT REFERENCE.

ALL JUNCTION BOXES SHALL BE INSTALLED WITH A GROUNDING ELECTRODE

TWO RECESSED $\frac{3}{8}$ " S.S. HEX HEAD BOLTS ARE REQUIRED FOR EACH COVER.

▲ A MINIMUM 2" DIAMETER CONDUIT ENTRANCE IS REQUIRED, UNLESS OTHERWISE SPECIFIED ON THE PLANS.

J-HOOK WIRE SUPPORTS SHALL BE SECURELY ATTACHED TO THE JUNCTION BOX WITH A BOLT AND NUT WITH A NEOPRENE WASHER OR AN EXPANSION FITTING.

CONDUITS SHALL EXTEND 2" TO 3" MAX. INTO THE INSIDE WALL OF THE JUNCTION BOX.

THE JUNCTION BOX MAY BE A TWO PIECE DESIGN WITH THE TOP SECTION NO LESS THAN 17" IN DEPTH.

VOIDS RESULTING FROM ENTRANCE OF CONDUITS INTO JUNCTION BOXES SHALL BE COMPLETELY FILLED WITH AN APPROVED MATERIAL.

SPECIFICATION
REFERENCE700
238

JUNCTION BOX FOR NON-DELIBERATE TRAFFIC USE VIRGINIA DEPARTMENT OF TRANSPORTATION

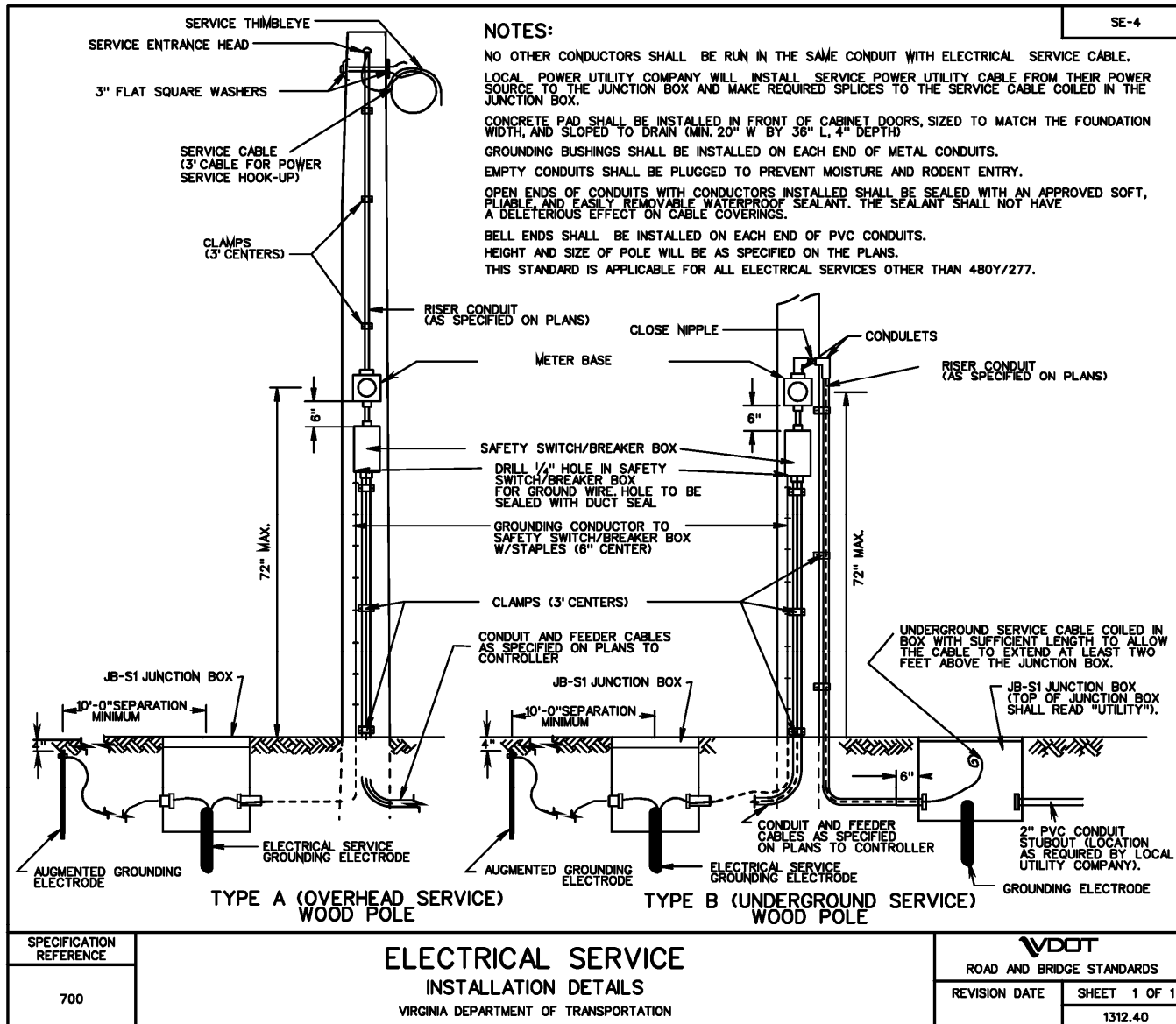
VDOT

ROAD AND BRIDGE STANDARDS

REVISION DATE
6-15-09

SHEET 1 OF 1

1317.20



CAMERA 42

ARMISTEAD AVE. & PEMBROKE AVE.



NORTHWEST CORNER

ARMISTEAD AVE.

BARRIER CURB

INSTALL
ENCODER

TRAFFIC CABINET
(EXISTING)

JUNCTION BOX
(EXISTING)

CONDUIT (EXISTING)
INSTALL CCTV CAMERA CABLE

PEMBROKE AVE.

JUNCTION BOX
(EXISTING)

INSTALL CCTV CAMERA POLE FOUNDATION
INSTALL 30' CAMERA POLE (BLACK)
INSTALL CCTV CAMERA ASSEMBLY
PENDANT 40 DEGREES \pm 1.5%

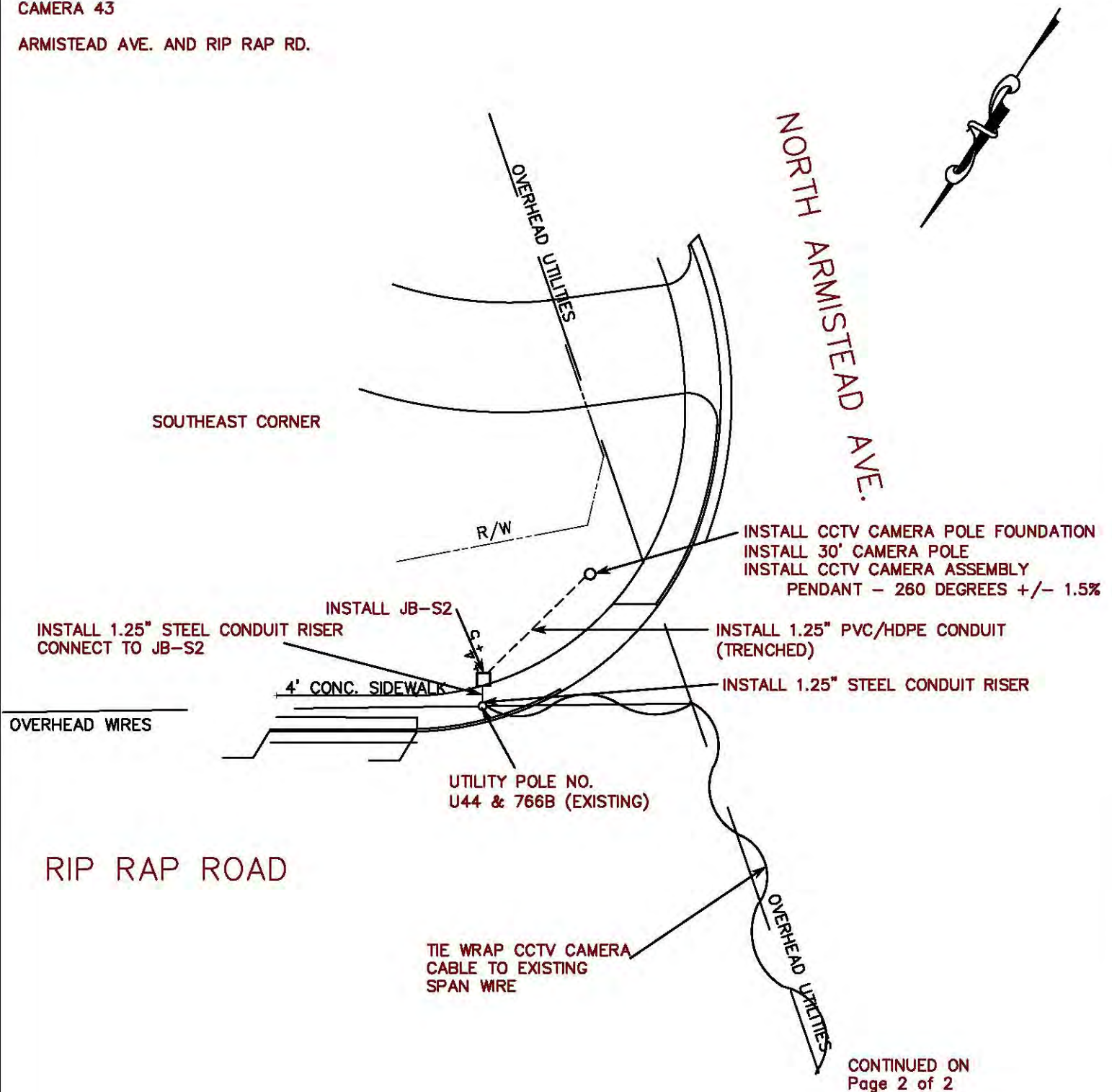
INSTALL 1.25" PVC/HDPE CONDUIT
(TRENCHED)
INSTALL CCTV CAMERA CABLE

EXISTING R/W

SOUTHWEST CORNER

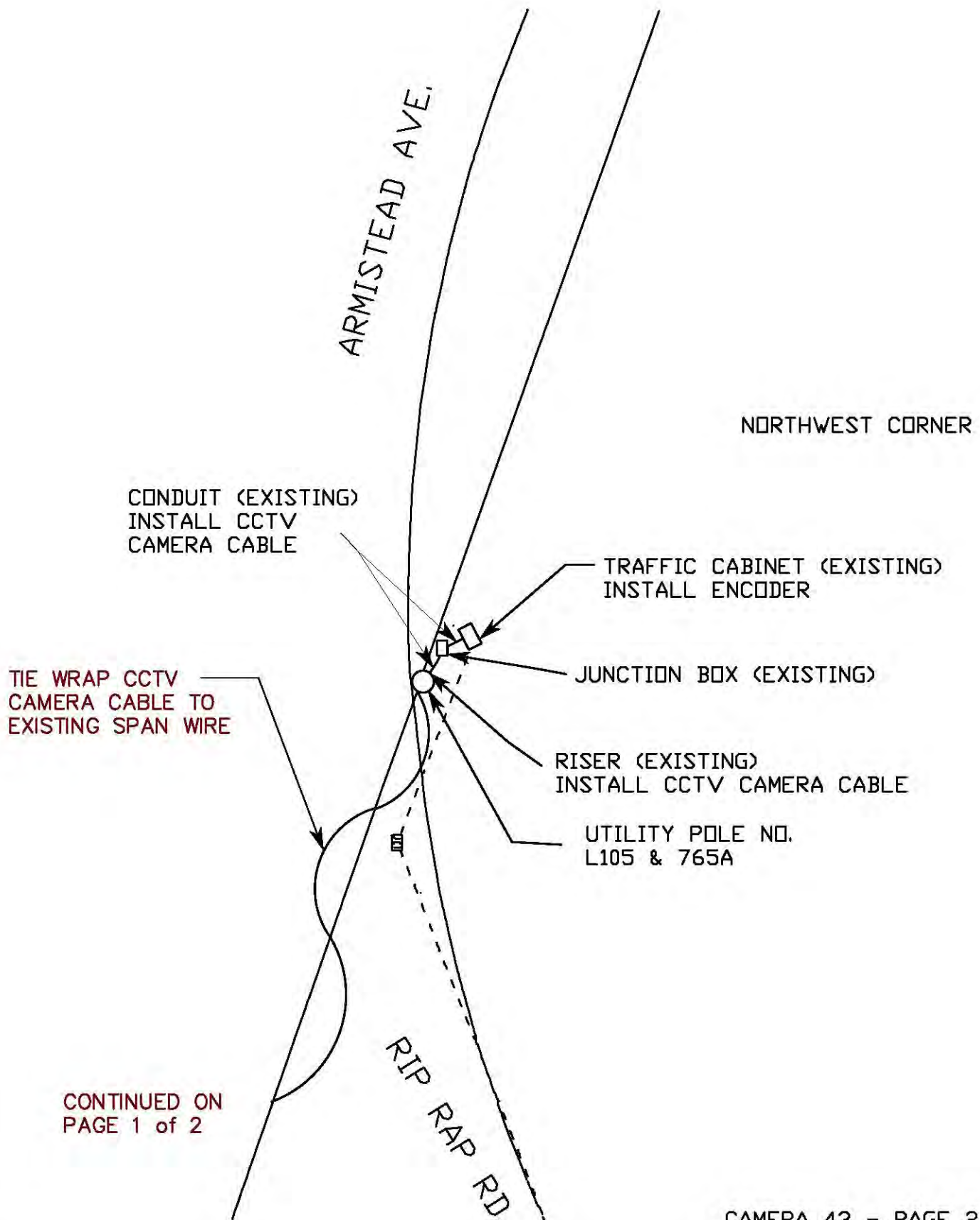
CAMERA 43

ARMISTEAD AVE. AND RIP RAP RD.



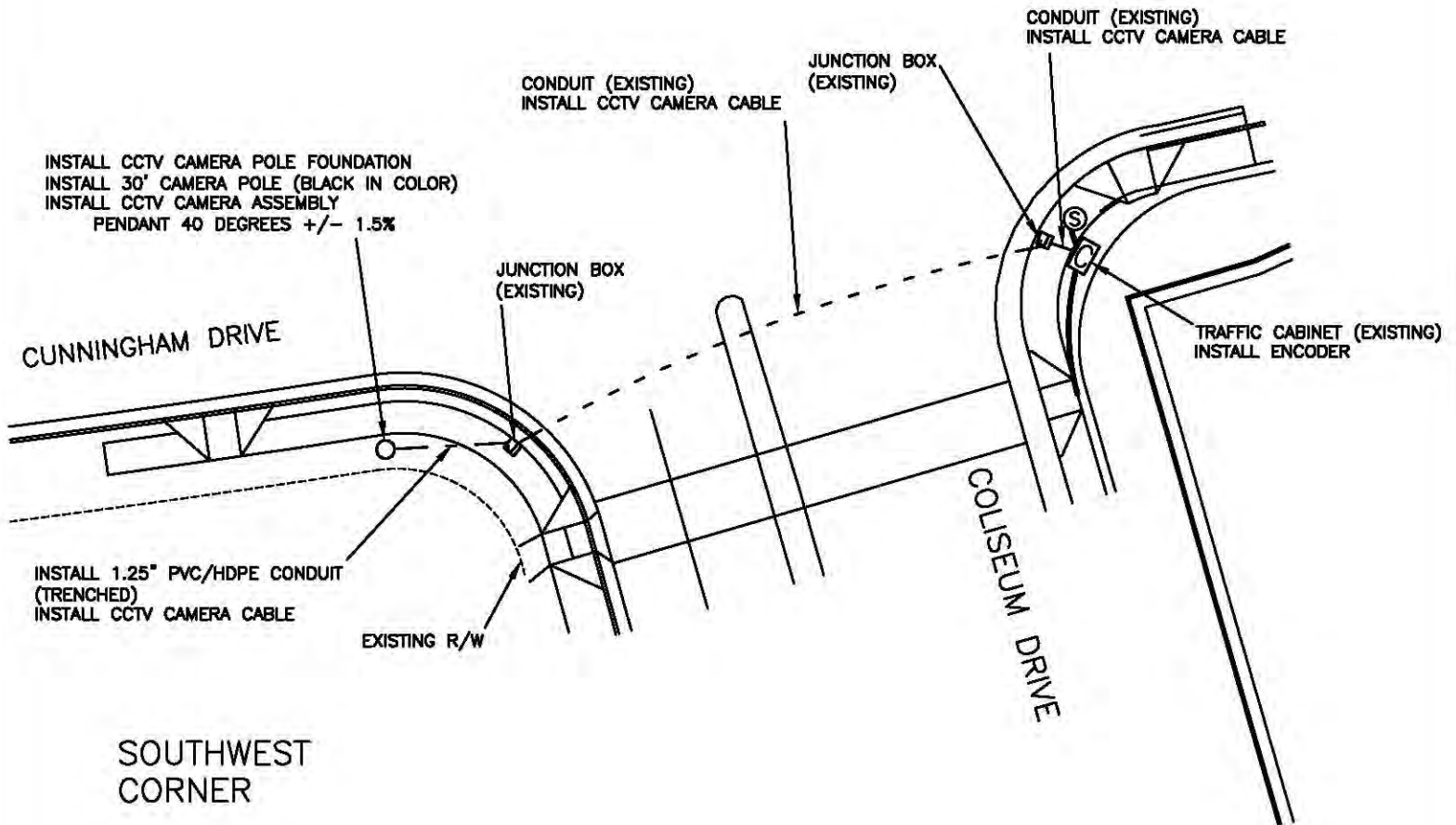
CAMERA 43

ARMISTEAD AVE. & RIP RAP RD.



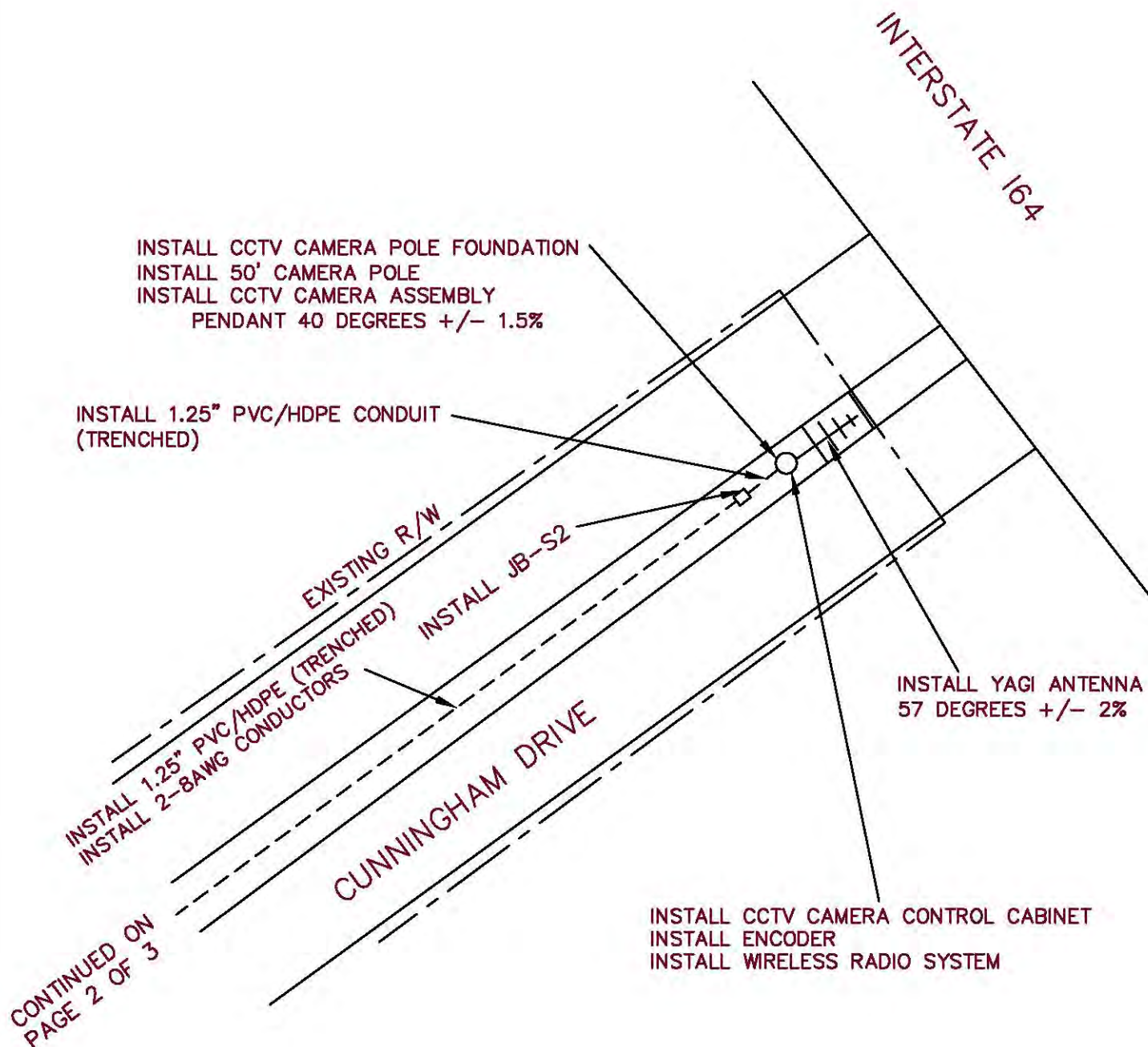
CAMERA 45

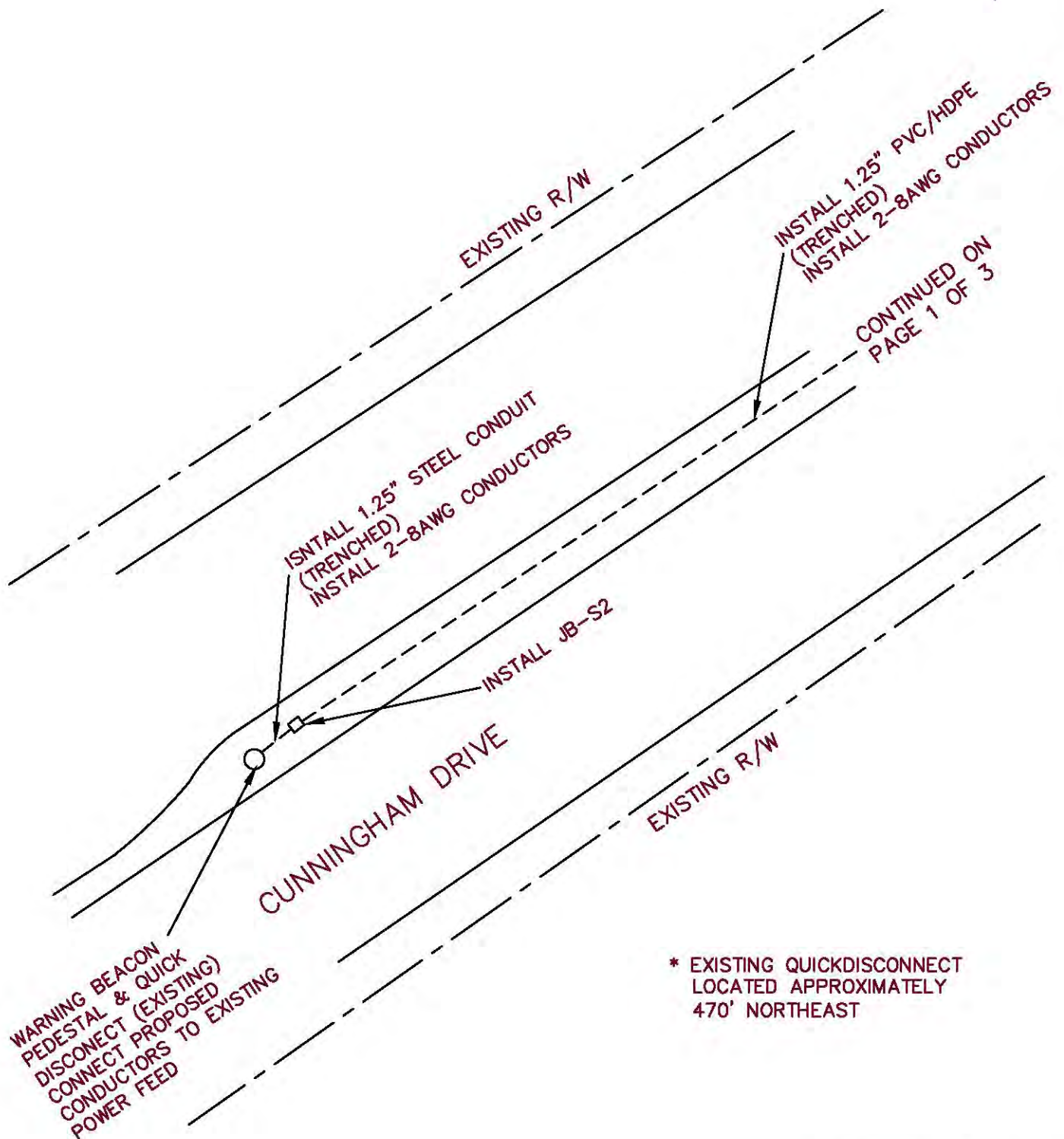
COLISEUM DRIVE & CUNNINGHAM DRIVE



CAMERA 46 (WIRELESS TRANSMIT STATION)

CUNNINGHAM DR. & I64

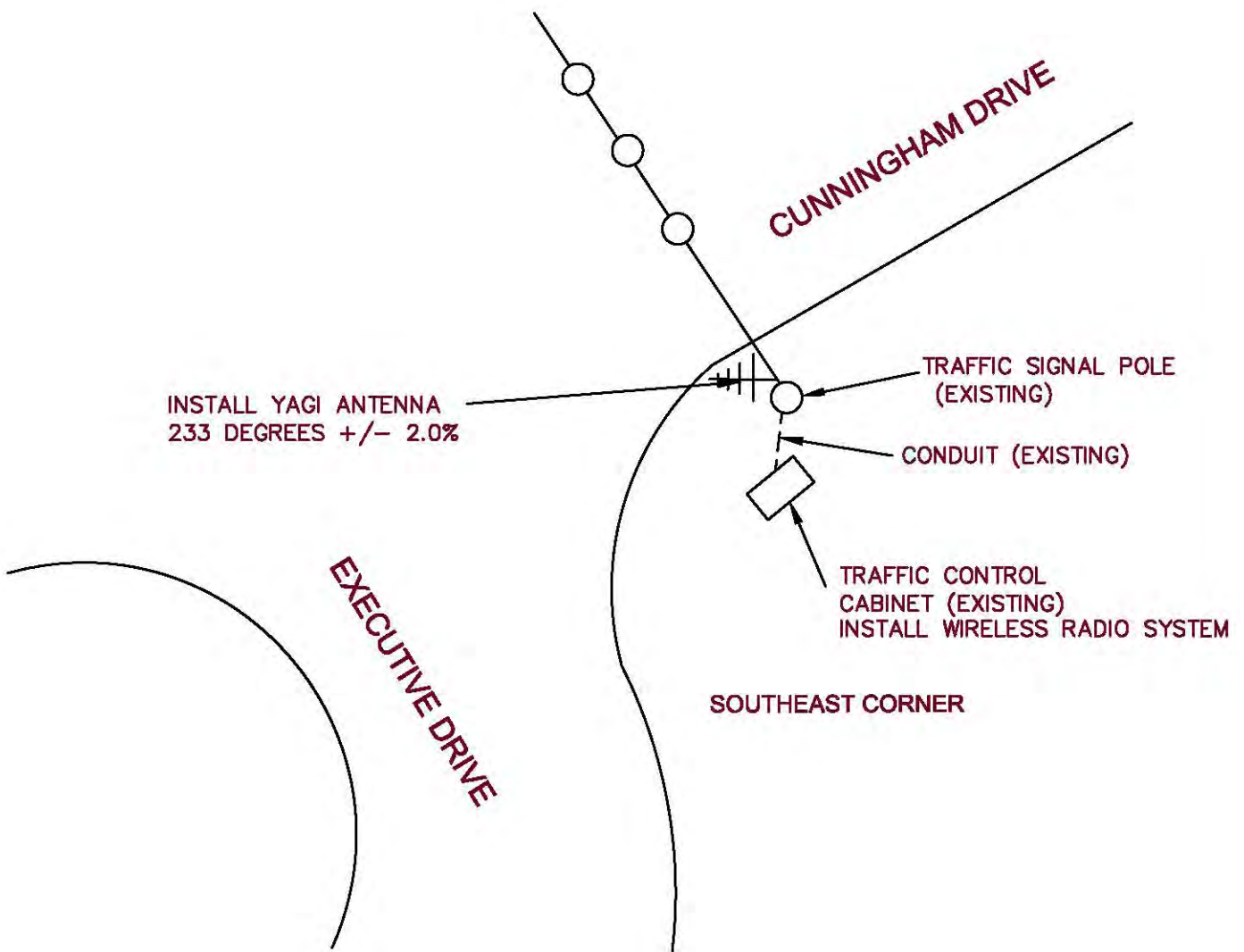




* EXISTING QUICKDISCONNECT
LOCATED APPROXIMATELY
470' NORTHEAST

CAMERA 46 (WIRELESS RECIEVE STATION)

CUNNINGHAM DR. & EXECUTIVE DR.



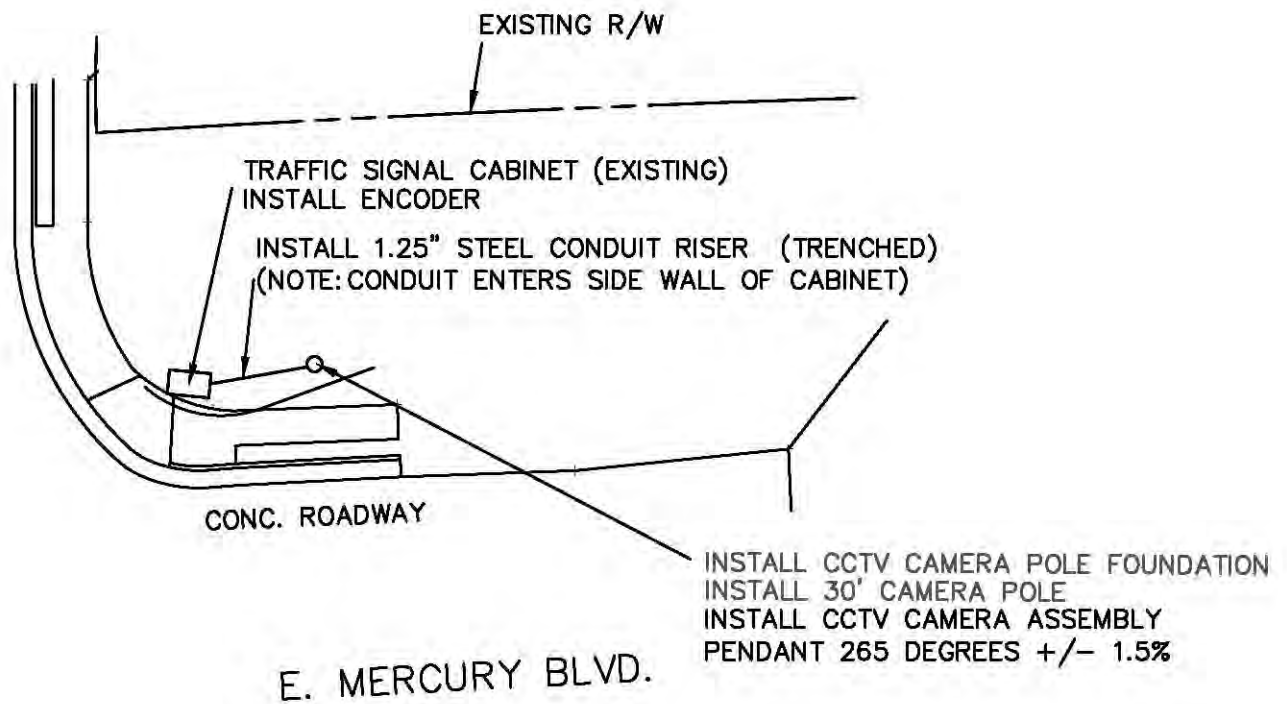
CAMERA 47

MERCURY BLVD. & ANDREWS BLVD.



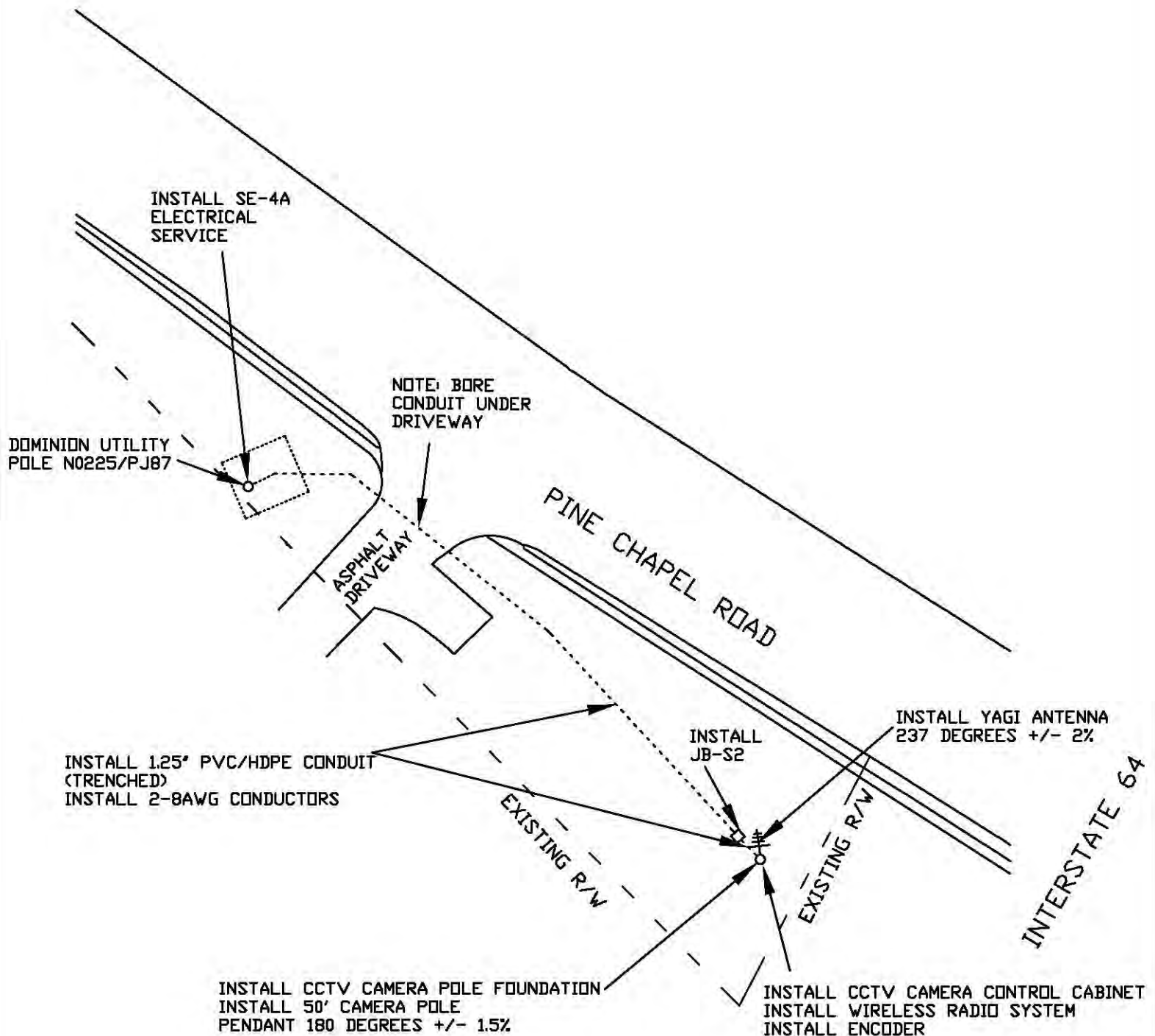
NORTHEAST
CORNER

ANDREWS BLVD.
80' R/W



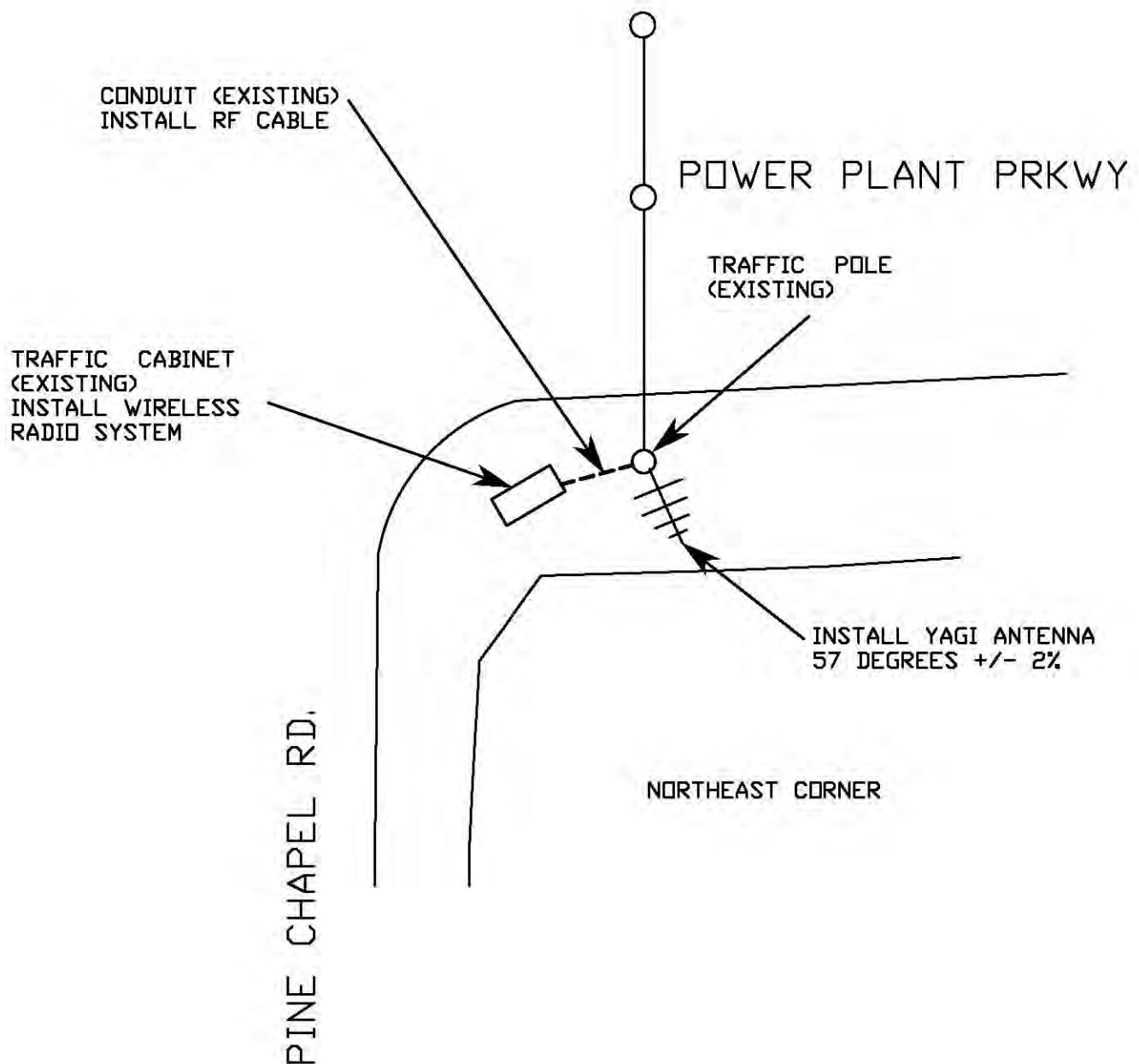
CAMERA 48 (WIRELESS TRANSMIT STATION)

PINE CHAPEL RD. & I64



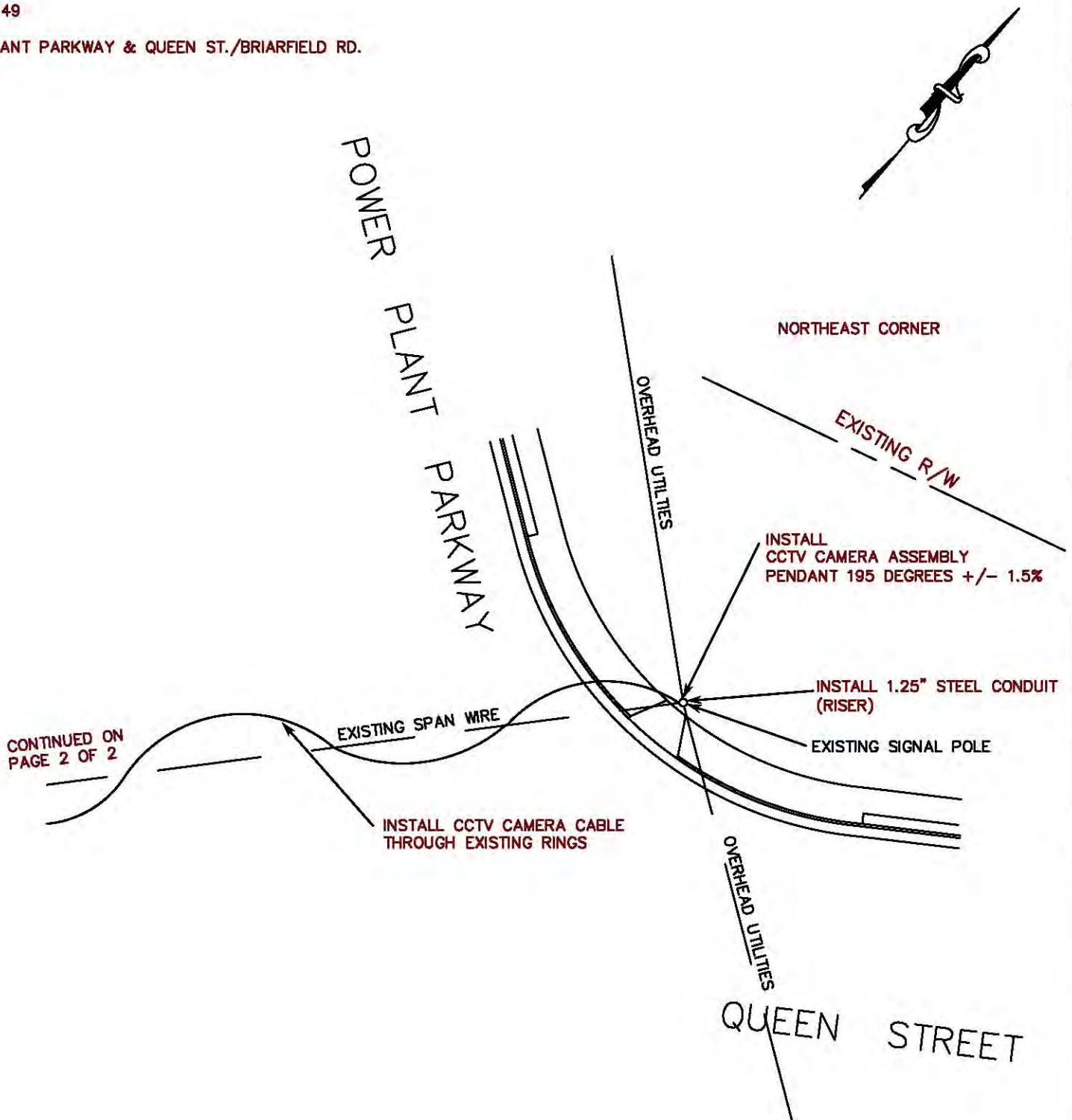
CAMERA 48 (WIRELESS RECEIVE STATION)

PINE CHAPEL RD. & POWER PLANT PRKWAY



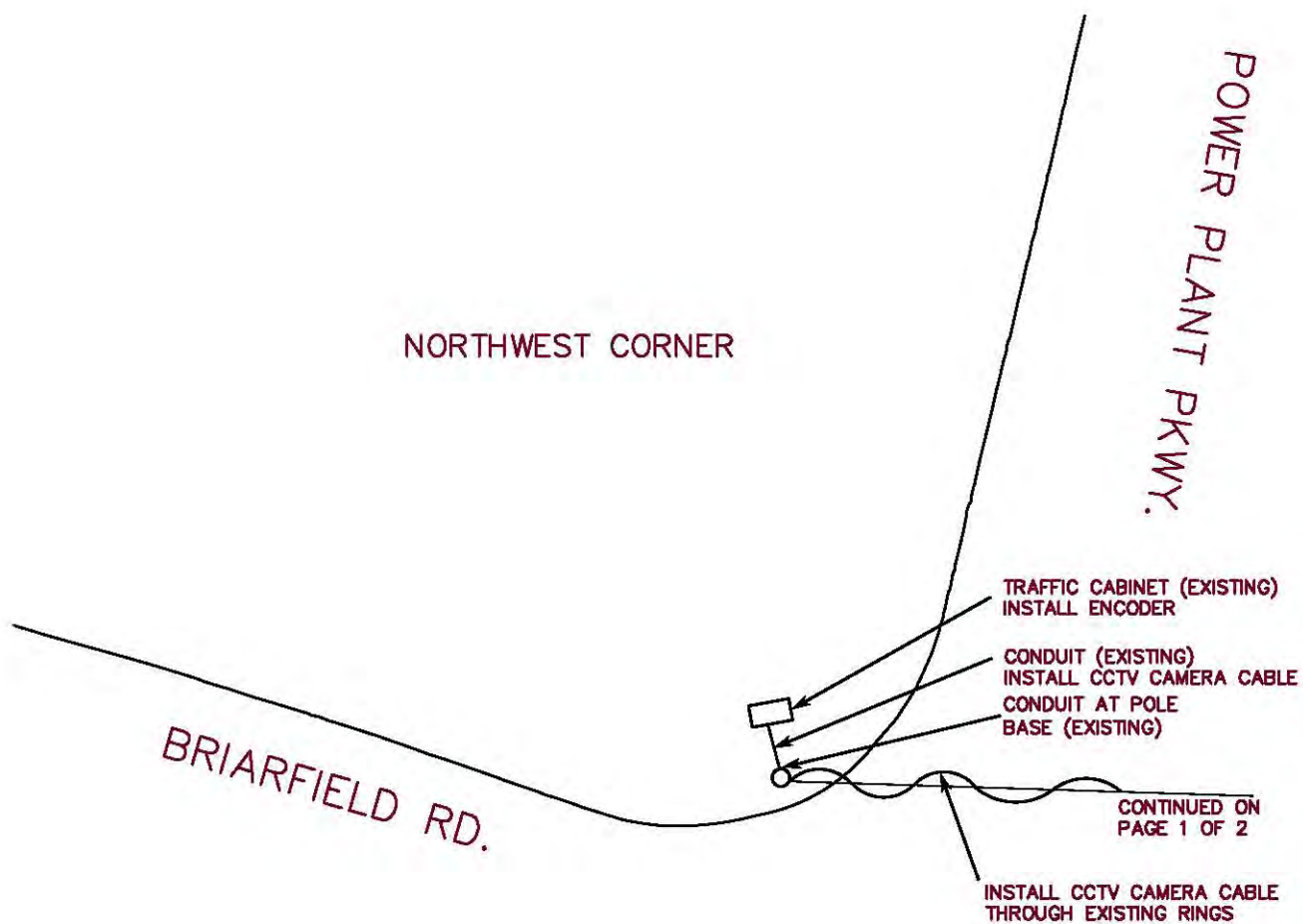
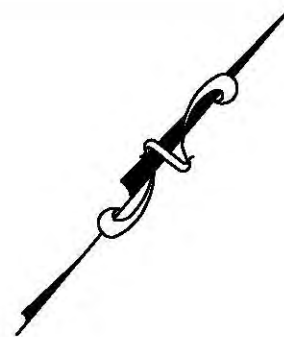
CAMERA 49

POWERPLANT PARKWAY & QUEEN ST./BRIARFIELD RD.



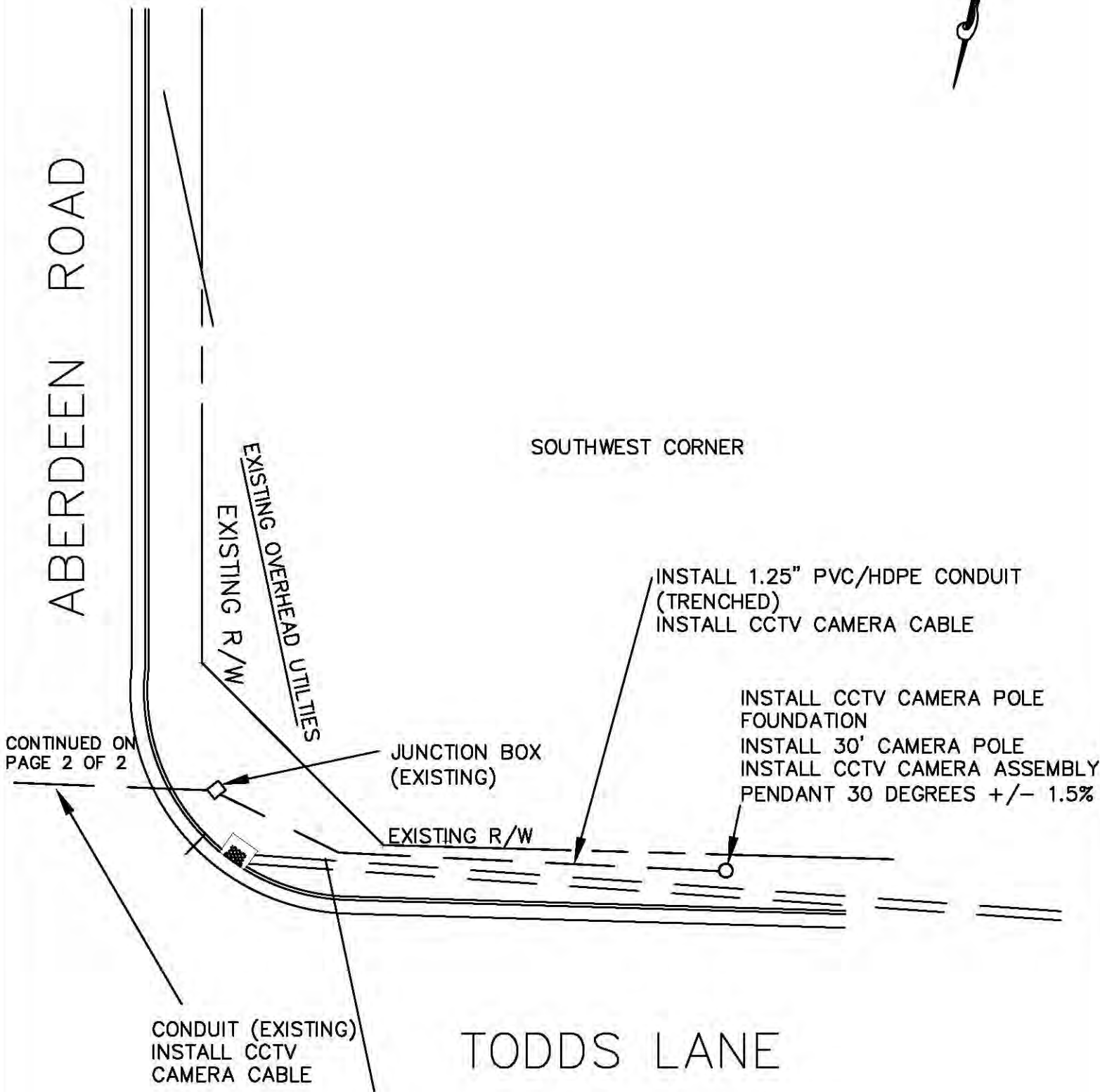
CAMERA 49

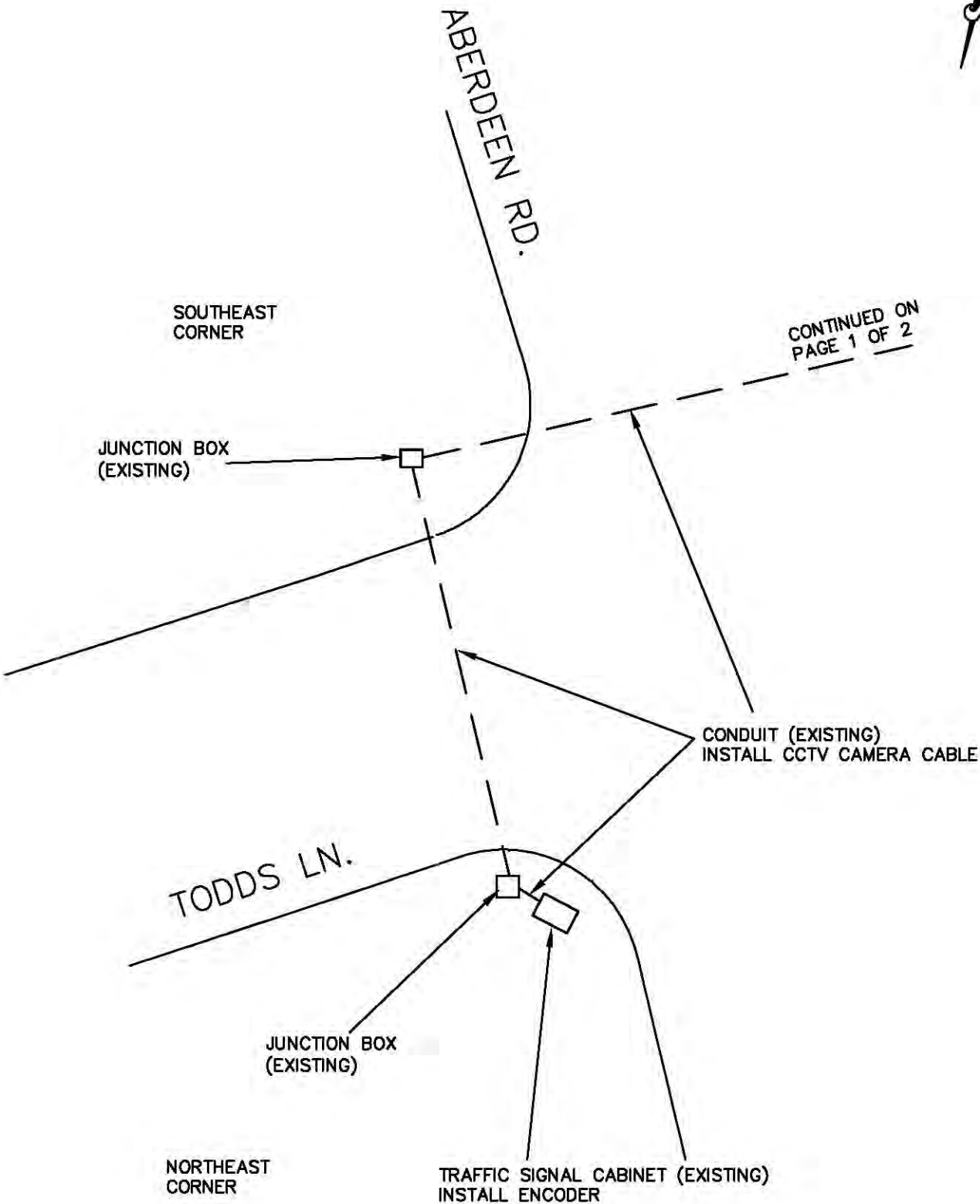
POWER PLANT PRKWY & QUEEN ST./BRIARFIELD RD.



CAMERA 50

TODDS LN. & ABERDEEN RD.



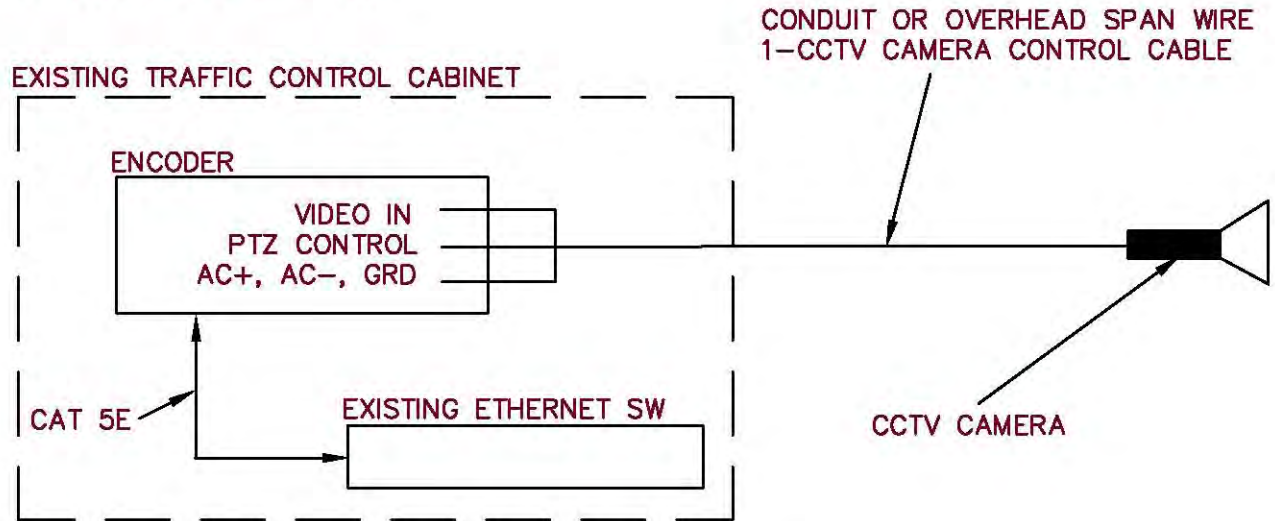


TODDS LN. & FARMINGTON BLVD.

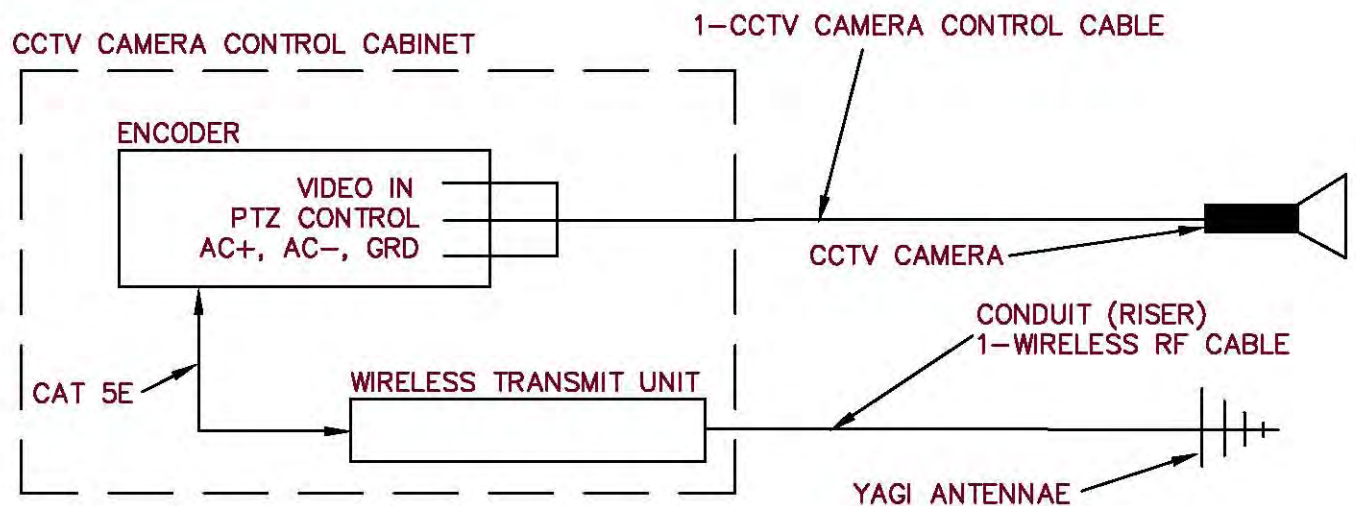


EQUIPMENT / CABLING CONNECTION TYPICALS

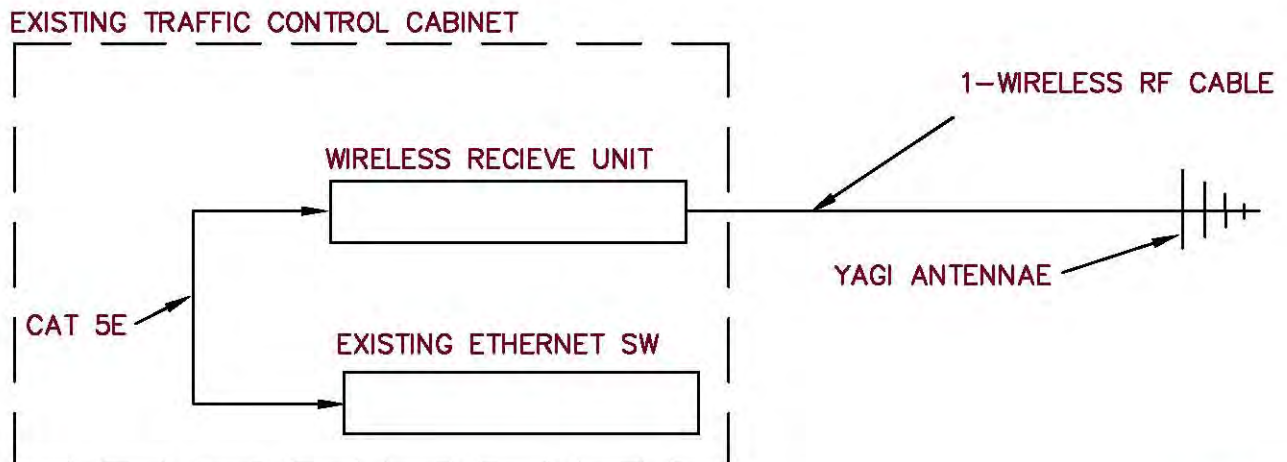
CAMERA TO ENCODER (NO WIRELESS)

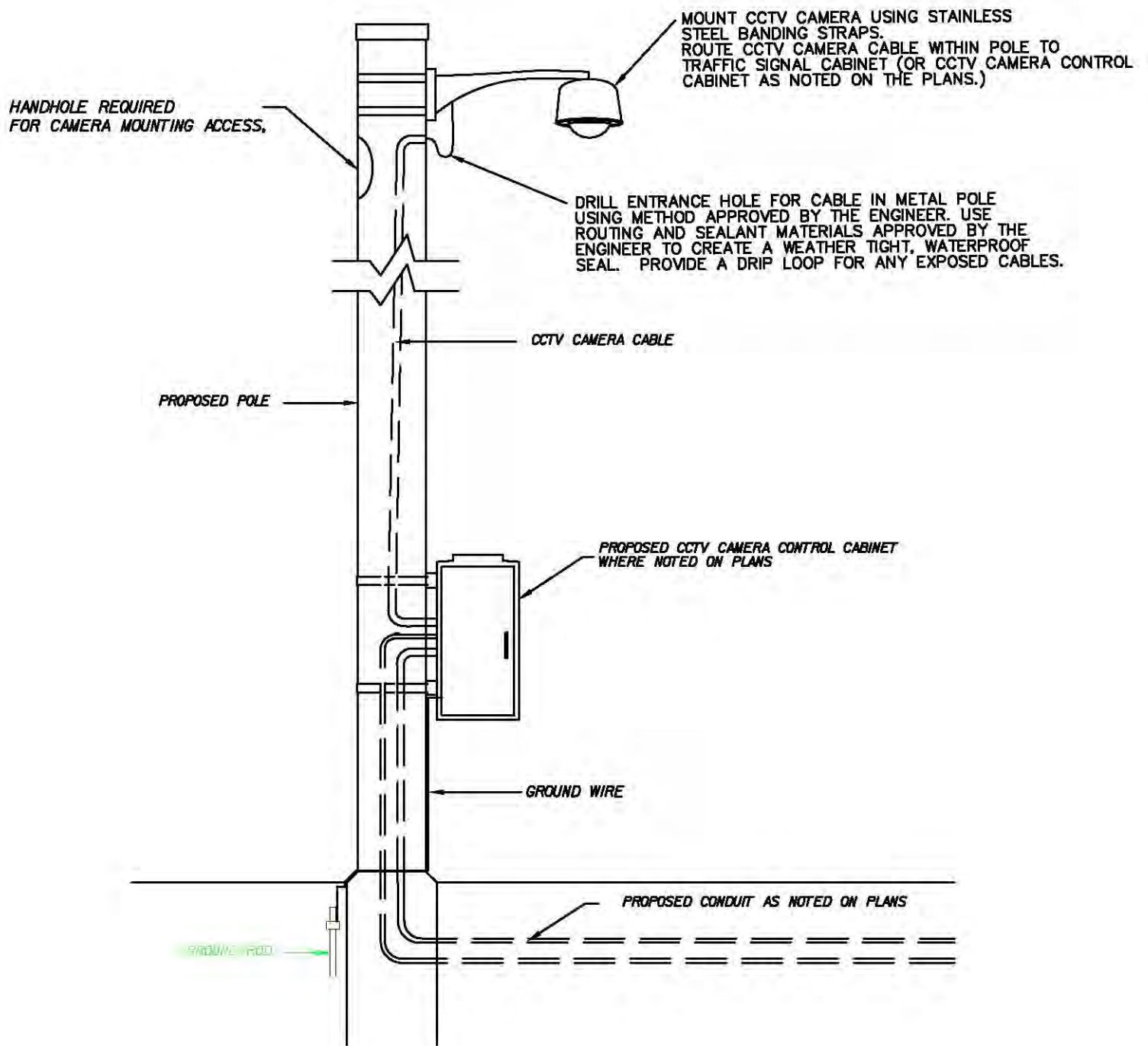


TRANSMIT WIRELESS STATION



RECIEVE WIRELESS STATION

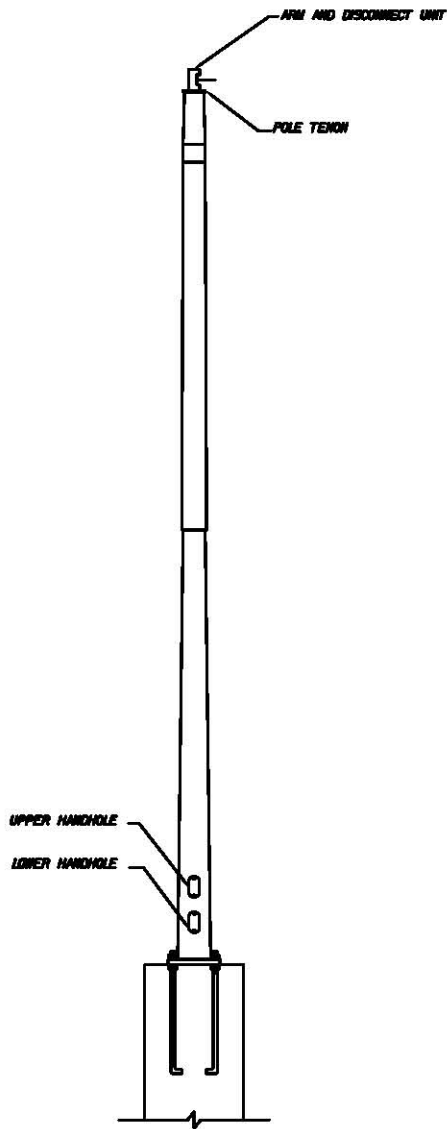




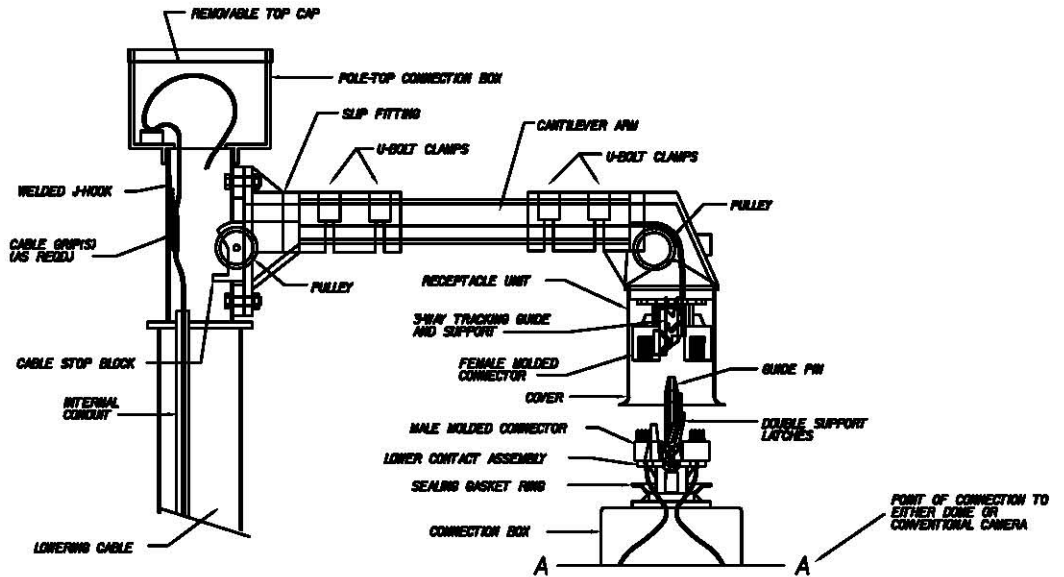
CCTV MOUNTING DETAIL FOR 30' CCTV CAMERA POLE

N.T.S.

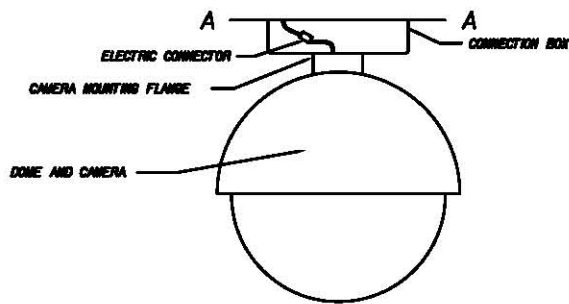
TYPICAL INSTALLATION DETAILS
TYPICAL CCTV INSTALLATION DETAILS FOR 50' CCTV CAMERA POLE



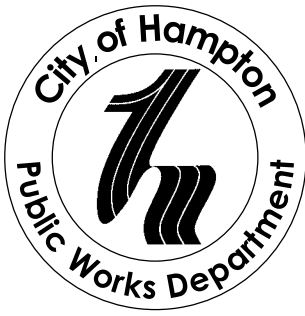
CAMERA POLE DETAIL
N.T.S.



ARM AND DISCONNECT UNIT DETAIL
N.T.S.



TYPICAL DOME CAMERA
N.T.S.



The City of Hampton

Public Works – Traffic Engineering

Specifications for CCTV Camera Installations

May 2013

1.0 CCTV Camera and Assembly

1.1 Specifications

- CCTV Camera and assembly shall be designed and fabricated in accordance with the requirements of the latest edition (and interim specifications) of the 2009 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, Fifth Edition
- The contractor shall develop and submit shop drawings for the Camera Assembly for approval by the Engineer.
- The Camera Assembly shall be composed of camera and zoom lens, pan/tilt, and dome enclosure.
- The Camera Assembly shall provide dual mode, day (color) and night (monochrome) video camera with optical zoom lens and a high speed positioning system enclosed within a sealed and pressurized optical dome. It shall include auto/manual focus with focus control and variable speed zoom. A digital zoom in and out at a range from 1 to 35X and an effective focal length of approximately 3.6mm to 828mm on a 1/4" format Progressive Scan CCD camera, resulting in an effective horizontal angle of view of 54° wide angle to 2.5° max. telephoto. The pan function shall provide 360° of continuous rotation, with a variable speed from 0.5° per second to 225° per second. The tilt function shall provide 180° of movement (0° to 90° down to 0°, with video rotation), with a variable speed from 0.5° per second to 60° per second. Up to 64 preset shall be available for storing and recalling zoom, pan and tilt positions. Shall be capable of tour sequence defined using up to 64 preset positions. All camera and pan & tilt functions will operable via the RS-422 serial communication through the video encoder to the TOC central software.

- The Camera Assembly shall have the following minimum features:
 - 1/4" Progressive Scan Color Sensor
 - Horizontal Resolution of 470 TV Lines
 - Vertical Resolution of 350 TV Lines
 - 23:1 (3.6mm to 82.8mm) optical zoom lens
 - Digital Zoom Range: 1X (Off) through 10X, Smooth transition from Optical to Digital Zoom
 - Effective overall focal length of 3.6mm to 828mm with digital zoom
 - 3 possible zoom speeds from approximately 2.9 seconds to 5.8 seconds full range
 - Auto/Manual Focus
 - Selectable long term integration to 1/4 second with frame store video output
 - Selectable shutter speeds from 1/60 second to 1/30,000 second
 - Composite video output; NTSC format
 - Adjustable color balance
 - Internal phase adjust line-lock, software adjustable
 - Programmable on screen character generator
 - Wide Dynamic Range (WDR) by use of dual shutter exposure technique.
 - Imager: Interline transfer Progressive Scan CCD with mosaic-type color compensating filter.
 - Picture Elements: 758 (H) x 504 (V)
 - Video Output: NTSC, 1 V p-p @ 75 ohms, unbalanced.
 - Maximum Lens Aperture: f/1.6 (wide) to f/3.6 (tele)
 - Horizontal Angle of View: Optical: 54° to 2.5°; At 10X Digital: 54° to 0.25°.
 - Minimum Focus Distance: 40" in tele, 0.4" in wide angle
 - Auto Focus: Selectable Auto/Manual, minimum scene illumination for Reliable Auto Focus, 30% video
 - Manual Focus Speed: One speed, approximately 2.0 seconds to full range
 - Zoom & Focus Presets: 64 preset positions, focus is auto, if programmed, shall display the Preset ID
 - Flash Memory: Update firmware and new features via serial communication, or approved equal.
 - Long Term Integration Range: (Short Shutter)
 - Manual Shutter: Selectable shutter speeds of 1/60; 1/120; 1/180; 1/250; 1/500; 1/1,000; 1/2,000; 1/4,000; 1/10,000; 1/30,000 second
 - Auto Iris: Iris automatically adjusts to compensate for changes in scene illumination to maintain constant video level output within sensitivity specifications.
 - Manual Iris: The effect of open iris/close iris shall be done by changing the video level. To give the effect of open iris, a decrease in the video level value shall change and to give the effect of close iris an increase in the video level shall change. The video level value shall range from 1 to 256 in the auto-iris mode the video level is set at its default mode.

- Gamma: 0.45
- AGC: 0 to 28 dB
- Color Balance: Auto Tracking Color Balance/Manual with adjustable Red and Blue Levels
- Signal to Noise Ratio: >50 dB
- Synchronization: Phase-Adjust Line Lock on 60Hz.
- RS-422/RS-232 serial control, protocol/command set to be public domain.
- Camera Addressing via serial control
- Internal heater and blower
- Sealed enclosure pressurized with dry nitrogen
- No mechanical pan limits, continuous rotation capability in either direction
- The Camera Assembly specified herein shall be a self-contained camera unit capable of 24-hour per day unattended operation and shall operate with no discernible degradation while the ambient temperature is between minus 20 degrees Fahrenheit and plus 122 degrees Fahrenheit. The assembly shall survive 100 percent relative humidity, and salt atmosphere exposure.
- The camera and lens shall be assembled and tested by the manufacturer. The camera and lens assemble tests shall be conducted in accordance with the manufacturer's factory test procedures and as specified herein.
- The Camera Assembly shall be of rugged design and suitable for reliable operation when mounted in the configuration as specified in these specifications and on the Plans. The camera shall be designed for minimum maintenance and need for adjustment after initial set up. The Camera Assembly shall have circuitry to signal the lens to appropriately adjust the iris setting to prevent any damage to the camera when pointed directly at strong light sources, including the sun.
- The following are the minimum pan/tilt mechanism requirements:
 - Continuous rotation capability in either direction. Software limits provided for pan mode.
 - 180° of tilt movement, video rotation at 90° down with auto-flip.
 - Pan Speed (Operator Control): Variable from 0.1°/sec. to 80 °/sec.
 - Pan Speed (Preset Control): >250°/sec.
 - Tilt Speed (Operator Control): Variable from 0.1°/sec. to 40 °/sec.
 - Tilt Speed (Preset Control): 60°/sec.
 - 64 pan, tilt, zoom, and focus preset positions with repeatability within ± 0.1° each with a unique user-programmable ID
 - The pan/tilt drive shall be internal to the domed enclosure rated for use with the camera, lens and enclosure. It shall provide a means of remotely positioning the camera with commands from a workstation in the Transportation Control Center (TCC). The pan/tilt driver shall accept and respond to remotely generated preset positioning and rate commands. Materials (with treatment) shall be of a type which do not deteriorate or corrode due to exposure to moist salt air and chemicals found in urban air

- The zoom mechanism shall be designed for maintenance-free operations. All gearing and bearing shall be self-lubricating with lubrication and gearing tolerances compatible with the environmental specifications contained herein. Circuitry shall be provided to protect the motors from burn-out in case of a mechanical failure or overload conditions. The lens-camera-pan/tilt unit shall form one mechanical assembly mounted in the dome enclosure assembly
- The pan and tilt device (which includes the camera/lens package and drivers) shall be easily and quickly removable via a quick disconnect mounting assembly and a single electrical connector to facilitate ease of system installation and maintenance procedures
- The pan/tilt mount shall be fully compatible with the dome enclosure assembly and wall mounting provision as specified in these Technical Special Provisions
- Permanently lubricated heavy duty sealed bearing shall be utilized on the pan/tilt unit
- There shall be three furnished only assemblies

1.2 Installation

- Install camera and assembly as per manufacturer specifications and orient pendant as shown on plans. Mounting angles indicated on the plans are referenced clockwise from true north. Engineer shall approve CCTV camera view at locations as shown on the Plans prior to acceptance. Use banding or other method approved by the Engineer to fasten CCTV camera to pole. Shop drawings/mounting details shall be submitted by the contractor to the Engineer for approval prior to installation. The contractor shall ensure that all cables from the pole to the camera are routed inside the mounting hardware and protected from exposure to the outside environment. Follow installation guidelines as detailed on the Plans.
- Integrate CCTV camera with Encoder, power distribution assembly, surge protection, and wireless transceiver (where indicated on plans) at all proposed CCTV camera locations.
- Electrically bond each camera and pan/tilt/zoom mechanism and its housing to the CCTV camera attachment assembly using a number 6 AWG braided copper conductor.
- Installation of pendant and camera at the location of Queen Street and Briarfield Rd shall be to the existing strain pole as shown on plans.

(a) Operational Testing:

The contractor shall perform local field operational tests at each CCTV field site according to the following:

- Verify that physical construction has been completed in accordance with Plans and Specifications.

- Verify the quality and tightness of ground and surge protector connections.
- Verify proper voltages for all power supplies and related power circuits.
- Verify all connections, including correct installation of communication and power cables.
- Verify that the video signal from the camera is present and of consistent quality at all connection points between the camera, the cabinet, and any video conversion/communication devices therein.
- Exercise pan, tilt, zoom, and focus in all directions and execute a minimum of 3 other unique programming commands to ensure that the communication link between the cabinet and the camera is functioning properly.

(b) System Acceptance Testing:

Upon successful completion of the Operational Testing, the CCTV shall undergo a 30-day System Acceptance Test to verify proper operations of the CCTV and control of associated devices from the TOC. A major failure of the camera that disables the camera for longer than two hours, or a failure to provide consistent response to commands from the TCC shall be cause to re-start the 30-day test period.

1.3 Measurement and Payment

- CCTV Camera Assembly will be measured and paid for as the actual number of assemblies furnished, installed, integrated, and accepted. No separate measurement will be made for cabling (with the exception of CCTV Camera Cables as discussed below), connectors, CCTV camera attachment assemblies, conduit, condulets, fittings, grounding equipment, CCTV camera enclosures, surge protectors, software/firmware package(s), shop drawings, documentation, and for all materials, tools, incidentals, or any other equipment or labor required to install the CCTV assembly. The assembly includes the CCTV camera unit, housing, integrated pan/tilt/zoom, and all associated cabling, configuration, integration and labor to furnish and install the assembly. 70% of the unit price will be paid with a successful inspection and testing of camera known as CCTV Operational Test. This includes testing of video, pan, tilt and zoom control. The remaining 30% will be paid upon successful completion of the Acceptance Test period.
- CCTV Camera Assembly (FURNISH ONLY) will be measured and paid for as the actual number of assemblies furnished. Price will include CCTV camera assembly, cabling (150' of CCTV Camera Cables per camera), connectors, CCTV camera mount attachment assemblies, surge protectors, and software/firmware package(s).

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
<u>CCTV Camera Assembly.....</u>	<u>Each</u>
<u>CCTV Camera Assembly (FURNISH ONLY)</u>	<u>Each</u>

2.0 CCTV Camera Pole Foundations

2.1 Specifications

- The contractor is required to provide a foundation design in accordance with the requirements of the latest edition (and interim specifications) of the 2009 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, Fifth Edition and the Virginia Department of Transportation Road and Bridge Specifications, latest revisions. Include within the design at least 2 – 1.5” PVC conduits installed inside the bolt circle pattern that will ultimately exit the concrete base exterior into the earth area and the grounding system for the CCTV Camera Pole
- All materials and products shall be manufactured in the United States of America, and comply to ASTM or AASHTO specifications
- All complete shop drawings and design computations shall bear the stamp of a Registered Professional Engineer in the State of Virginia. The calculations shall include a pole with attached pendant and camera, antenna system if used, and anchor bolt analysis. Test bore will be required by the Contractor for soil classification. Foundation design shall be in accordance with Section 700 of the Virginia Department of Transportation (VDOT) Road & Bridge Specifications except as noted herein.
- Cast-in-place concrete pole foundation shall be class A3 conforming to the requirements of Section 217. Reinforcing Steel shall conform to ASTM Designation A615, Grade 60 in accordance with Section 223. The concrete shall cure a minimum of 28 days before any load is applied to the foundation
- Anchor bolts shall conform to the requirements of ASTM F1554 Grade 55. The upper 12 inches of the bolts shall be hot dip galvanized per ASTM A153. Each anchor bolt shall be supplied with two hex nuts and two flat washers. The strength of the nuts shall equal or exceed the proof load of the bolts. Covers shall be provided over the anchor bolts at the base of the pole
- Contractor shall stake all proposed pole locations for approval by the City. At least one week prior to calling Miss Utility for pole foundation excavation notify the City’s Traffic Engineering Division for staking locations. Contact either John Yorks at (757-726-2831) or jyorks@hampton.gov or Martin Willson at (757-727-8418) or mwillson@hampton.gov).

2.2 Installation

- Installation of CCTV Camera Pole foundations shall be in accordance with

Section 700 of the VDOT Road and Bridge Specifications.

2.3 Measurement and Payment

- CCTV Camera Pole Foundation will be measured in units of each and will be paid for at the Contract unit price per each. This price shall be full compensation for all concrete, maintenance pad, reinforcing steel, anchor bolts, bolt circle templates, grounding equipment, conduits, vented rodent barrier, clearing and grubbing, test bores, excavating, backfilling, compacting, disposing of surplus material, and restoring existing areas, foundation design and incidentals necessary to complete the work.

Payment will be made under:

Pay Item	Unit
CCTV Camera Pole Foundation	Each

3.0 30 Foot CCTV Camera Pole

3.1 Specifications

- Camera poles, connections, clamps, shoe bases and all other members shall be designed and fabricated in accordance with the requirements of the latest edition (and interim specifications) of the 2009 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, Fifth Edition
- All materials and products shall be manufactured in the United States of America, and comply to ASTM or AASHTO specifications
- The fabricator shall be certified under category I, "Conventional Steel Certification Program." Proof of this certification will be required
- All welding shall be in accordance with sections 1 through 8 of the American Welding Society (AWS) D1.1 Structural Welding Code. Tackers and welders shall be qualified in accordance with the code. Tube longitudinal seam welds shall be free of cracks and excessive undercut, performed with automatic processes, and be visually inspected. Longitudinal welds suspected to contain defects shall be magnetic particle inspected. All circumferential butt-welded pole and arm splices shall be one-piece construction and shall be ultrasonically and radiographically inspected.
- The pole shaft shall be one-piece construction and shall conform to ASTM A595 Grade A with a minimum yield strength of 55 ksi or ASTM A572 with a four inch corner radius, have a constant linear taper of 0.14 in/ft, and contain only one longitudinal seam weld. Circumferential welded tube butt splices and laminated tubes are not permitted. Longitudinal seam welds within 6 inches of complete penetration pole to base plate welds shall be completed penetration welds. The shaft shall be hot dip

galvanized per the requirements of the Virginia Department of Transportation Road and Bridge Specifications, latest edition.

- Where indicated on the plans, 30 Foot CCTV Camera Poles shall be black in color. Black poles shall be hot-dipped galvanized in accordance with ASTM A123 and then powder coated black. Powder coat finish shall consist of a Urethane or Triglycidyl Isocyanurate (TGIC) Polyester Powder. The exterior steel surface shall be blast cleaned utilizing cast steel abrasives prior to pre-baking and degassing at the maximum temperature of 450 degrees Fahrenheit for a minimum of one (1) hour. Then all exterior surfaces shall be cleaned and coated with a Urethane or Triglycidyl Isocyanurate (TGIC) Polyester Powder to an average dry film thickness (DFT) of 4.0 mils (0.004") with no readings below 3 mils (0.003") within four (4) hours following pre-baking. The powder coating shall be electrostatically applied and then cured in a gas fired convection oven at a temperature range of 350-400 degrees Fahrenheit. The thermosetting powder resin shall provide both intercoat as well as substrate fusion adhesion that meets 5A or 5B classifications of ASTM D3359.
- The pole shaft shall be designed to support the CCTV Camera Assembly. The basic wind speed, V, used in the determination of the design wind pressure shall be 130 mph. The minimum design life shall be 50 years with a 50 year reoccurrence interval. The pole must comply with the fatigue category II. Design computations for the camera poles shall be complete and shall include, but not limited to the following: close consideration must be given to the effective projected area of the camera equipment to be mounted on the pole, the antenna system if applicable, along with the weight when designing the pole to meet the specified deflection performance criteria; consideration for all possible loading combinations including wind and ice loads; and the design stresses and allowable stresses for all components which comprise the proposed structure. The top of the pole deflection shall not exceed the following: (1) 1 % of pole height due to 130 mph (non-gust) winds, (2) 1 inch due to 30 mph (non-gust) winds.
- All complete shop drawings and design computations shall bear the stamp of a Registered Professional Engineer in the State of Virginia. Shop drawings shall be approved prior to fabrication, and it shall be expressly understood and agreed upon that said approval does not relieve the Contractor of the responsibility of the design, fabrication and erection of the structure. The Engineer reserves the right to reject a pole design if the calculated deflection exceeds that specified herein.
- The calculations shall include a pole and base plate. The pole calculations shall be analyzed at the pole base and at 5-foot pole intervals. At each of these locations the following information shall be given:
 - The pole's diameter, thickness, section modulus, moment of inertia and cross sectional area.

- The centroid, weight, projected area, drag coefficient, velocity pressure and wind force of each trapezoidal pole segment.
- The axial force, shear force, primary moment, total moment, axial stress, bending stress, allowable axial stress, allowable bending stress and combined stress ratio (CSR) at each elevation.
- The Contractor shall submit manufacturer's shop drawings, layout drawings and specifications for equipment and appurtenances for the approval of the Engineer.
- Pole shall not contain a lowering device
- Pole shall provide a hand hole to allow access to cabling as it enters from the foundation
- The Contractor shall supply and install a Lightning Master Corporation Model #CA-72-CAM system or approved equivalent, at all camera pole locations shown on plans. The system shall include a surge suppressor device(s) to be supplied and installed by the Contractor and to be located in the base of the camera pole and connected to the ground rod array system. The surge suppressor(s) shall be of the type recommended by the lightning dissipater manufacturer and shall properly interface with the pole mounted dissipater and the size and type of cables used for video transmission and PTZ control.

3.2 Installation

- This work shall consist of furnishing, installing and testing a steel camera pole with a ground rod array and lightning dissipater at the locations shown on the plans or as directed by the Engineer, all in accordance with the 2007 VDOT Road and Bridge Specifications.
- The contractor shall furnish and install all power, video, and data cables necessary to provide connection points for camera video and PTZ control signals within the cabinet. The contractor shall also furnish and install any and all ancillary equipment required to provide a complete and fully operational CCTV camera system. The contractor shall verify that all wiring meets NEC requirements where applicable.

3.3 Measurement and Payment

- No separate payment will be made for coordinating with the utility companies or installing and integrating items associated with the work as described herein but the cost thereof will be considered incidental to other appropriate items of work.
- The cost of furnishing and installing the bond system shall be included in the unit price bid for each type and size of conduit wherein no separate measurement or payment will be made.
- 30 Foot CCTV Camera Poles will be measured in units of each and will be paid for at the Contract unit price per each. This price shall be full

compensation for furnishing and installing the camera pole, hardware, camera mount, wiring, testing, pole design, mounting brackets and hardware (e.g., screws, nuts, bolts, etc.), documentation and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Unit</u>
30 Foot CCTV Camera Pole.....	Each

4.0 50 Foot CCTV Camera Pole

4.1 Specifications

- Camera poles, connections, clamps, shoe bases and all other members shall be designed and fabricated in accordance with the requirements of the latest edition (and interim specifications) of the 2009 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, Fifth Edition
- All materials and products shall be manufactured in the United States of America, and comply to ASTM or AASHTO specifications
- The fabricator shall be certified under category I, "Conventional Steel Certification Program. Proof of this certification will be required
- All welding shall be in accordance with sections 1 through 8 of the American Welding Society (AWS) D1.1 Structural Welding Code. Tackers and welders shall be qualified in accordance with the code. Tube longitudinal seam welds shall be free of cracks and excessive undercut, performed with automatic processes, and be visually inspected. Longitudinal welds suspected to contain defects shall be magnetic particle inspected. All circumferential butt-welded pole and arm splices shall be one-piece construction and shall be ultrasonically and radiographically inspected.
- The pole shaft shall be one-piece construction and shall conform to ASTM A595 Grade A with a minimum yield strength of 55 ksi or ASTM A572 with a four inch corner radius, have a constant linear taper of 0.14 in/ft, and contain only one longitudinal seam weld. Circumferential welded tube butt splices and laminated tubes are not permitted. Longitudinal seam welds within 6 inches of complete penetration pole to base plate welds shall be completed penetration welds. The shaft shall be hot dip galvanized per the requirements of the Virginia Department of Transportation Road and Bridge Specifications, latest edition.
- Where indicated on the plans, 50 Foot CCTV Camera Poles shall be black in color. Black poles shall be hot-dipped galvanized in accordance with ASTM A123 and then powder coated black. Powder coat finish shall consist of a Urethane or Triglycidyl Isocyanurate (TGIC) Polyester Powder. The exterior steel surface shall be blast cleaned utilizing cast steel

abrasives prior to pre-baking and degassing at the maximum temperature of 450 degrees Fahrenheit for a minimum of one (1) hour. Then all exterior surfaces shall be cleaned and coated with a Urethane or Triglycidyl Isocyanurate (TGIC) Polyester Powder to an average dry film thickness (DFT) of 4.0 mils (0.004") with no readings below 3 mils (0.003") within four (4) hours following pre-baking. The powder coating shall be electrostatically applied and then cured in a gas fired convection oven at a temperature range of 350-400 degrees Fahrenheit. The thermosetting powder resin shall provide both intercoat as well as substrate fusion adhesion that meets 5A or 5B classifications of ASTM D3359.

- The pole shaft shall be designed to support CCTV Camera Assembly and lowering device. The basic wind speed, V, used in the determination of the design wind pressure shall be 130 mph. The minimum design life shall be 50 years with a 50 year reoccurrence interval. The pole must comply with the fatigue category II. Design computations for the camera poles shall be complete and shall include but not limited to the following: close consideration must be given to the effective projected area of the complete lowering system and camera equipment to be mounted on the pole, the antenna system if applicable, along with the weight when designing the pole to meet the specified deflection performance criteria; consideration for all possible loading combinations including wind and ice loads; and the design stresses and allowable stresses for all components which comprise the proposed structure. The top of the pole deflection shall not exceed the following: (1) 1 % of pole height due to 130 mph (non-gust) winds, (2) 1 inch due to 30 mph (non-gust) winds.
- All complete shop drawings and design computations shall bear the stamp of a Registered Professional Engineer in the State of Virginia. Shop drawings shall be approved prior to fabrication, and it shall be expressly understood and agreed upon that said approval does not relieve the Contractor of the responsibility of the design, fabrication and erection of the structure. The Engineer reserves the right to reject a pole design if the calculated deflection exceeds that specified herein.
- The calculations shall include a pole and base plate. The pole calculations shall be analyzed at the pole base and at 5-foot pole intervals. At each of these locations the following information shall be given:
 - The pole's diameter, thickness, section modulus, moment of inertia and cross sectional area.
 - The centroid, weight, projected area, drag coefficient, velocity pressure and wind force of each trapezoidal pole segment.
 - The axial force, shear force, primary moment, total moment, axial stress, bending stress, allowable axial stress, allowable bending stress and combined stress ratio (CSR) at each elevation.

- The Contractor shall submit manufacturer's shop drawings, layout drawings and specifications for equipment and appurtenances for the approval of the Engineer.
- The camera lowering system shall be designed to support and lower a standard closed circuit television camera, lens, housing, PTZ mechanism, cabling, connectors and other supporting field components without damage or causing degradation of camera operations. The camera lowering system device and the pole are interdependent; and thus, must be considered a single unit or system. The lowering system shall consist of a pole, suspension contact unit, divided support arm, and a pole adapter for attachment to a pole top tenon, pole top junction box and camera connection box. The divided support arm and receiver brackets shall be designed to self-align the contact unit with the pole center line during installation and insure the contact unit cannot twist under high wind conditions. Round support arms are acceptable.
- The camera-lowering device shall withstand wind forces of 100 mph with a 30 percent gust factor using a 1.65 safety factor. The lowering device manufacturer, upon request, shall furnish independent laboratory testing documents certifying adherence to the stated wind force criteria utilizing, as a minimum effective projected area, the actual EP A or any EP A greater than that of the camera system to be attached. The camera-lowering device to be furnished shall be the product of manufacturers with a minimum of 2 years of experience in the successful manufacturing of such systems. The lowering device provided shall be able to identify a minimum of 3 previous projects where the proposed system has been installed successfully for over a one-year period of time each. The construction of the camera lowering device shall be the (MG)² Model CDMG2-HYP-050 (DOM) or approved equal.
- The suspension contact unit shall have a load capacity of 200 lbs with a 4 to 1 safety factor. There shall be a locking mechanism between the fixed and moveable components of the lowering device. The moveable assembly shall have a minimum of 2 latches. This latching mechanism shall securely hold the device and its mounted equipment. The latching mechanism shall operate by alternately raising and lowering the assembly using the winch and lowering cable. When latched, all weight shall be removed from the lowering cable. The fixed unit shall have a heavy duty cast tracking guide and means to allow latching in the same position each time. The contact unit housing shall be weatherproof with a gasket provided to seal the interior from the dust and moisture.
- The prefabricated components of the lift unit support system shall be designed to preclude the lifting cable from contacting the power or video cabling. The Contractor shall supply internal conduit in the pole for the power and video cabling if required by the Engineer. The only cable permitted to move within the pole or lowering device during lowering or

raising shall be the stainless steel lowering cable. All other cables must remain stable and secure during lowering and raising operations

- The female and male socket contact halves of the connector block shall be made of thermosetting synthetic VOC-compliant polymer known as chlorosulfonated polyethylene (CSPE). The female brass socket contacts and the male conductivity brass pin contacts shall be permanently molded into the polymer CSPE body.
- The current carrying male contacts shall be 1/8 inch in diameter. There shall be two male contacts that are longer than the rest which will make first and break last providing optimum grounding performance. The number of contacts shall be 14 and the camera mounted thereto, shall be capable of performing all of its necessary functions on 14 contacts or less.
- The current carrying female contacts shall be 1/8 inches in I.D. All of the contacts shall be recessed 0.125" from the face of the connector. Cored holes in the rubber measuring 0.25" in diameter and 0.125" deep molded into the connector body are centered on each contact on the face of the connector to create rain-tight seals when mated with the male connector.
- The wire leads from both the male and female contacts shall be permanently and integrally molded in a VOC-compliant CSPE body, or approved equal. The current carrying and signal wires shall be constructed of #18/1 AWG CSPE (or approved equal) jacketed wire.
- The contacts shall be self-wiping with a shoulder at the base of each male contact so that it will recess into the female block, thereby giving a rain-tight seal when mated. These electrical contacts must meet Mil Spec Q-9858 and Mil Spec I-45208.
- All pulleys for the camera lowering device shall have sealed, self-lubricated bearings, oil tight bronze bearings, or sintered bronze bushings. The lowering cable shall be a minimum 1/8-inch diameter stainless steel aircraft cable with a minimum breaking strength of 1740 pounds with (7) strands of 19 wires each.
- All electrical and video coaxial connections between the fixed and lowering portion of the contact block shall be protected from exposure to the weather by a waterproof seal to prevent degradation of the electrical contacts. The electrical connections between the fixed and movable lowering device components shall be designed to conduct high frequency data bits and (1) volt peak-to-peak video signals as well as the power requirements for operation of dome environmental controls
- The interface and locking components shall be made of stainless steel and or aluminum. All external components of the lowering device shall be made of corrosion resistant materials, power coated, galvanized or otherwise protected from the environment by industry-accepted coatings to withstand exposure to a corrosive environment.

- The camera assembly manufacturer shall provide weights and/or counterweights as necessary to assure that the alignment of pins and connectors are proper for the camera support to be raised into position without binding. The lowering unit will have sufficient weight to disengage the camera and its components in order that it can be lowered properly.
- The camera assembly manufacturer shall provide a mounting flange sufficient for mounting their respective camera assembly to the bottom of the camera connection box.
- The Contractor shall supply and install a Lightning Master Corporation Model #CA-72-CAM system, or approved equivalent, at all camera pole locations shown on plans. The system shall include a surge suppressor device(s) to be supplied and installed by the Contractor and to be located in the base of the camera pole and connected to the ground rod array system. The surge suppressor(s) shall be of the type recommended by the lightning dissipater manufacturer and shall properly interface with the pole mounted dissipater and the size and type of cables used for video transmission and PTZ control.

4.2 Installation

- This work shall consist of furnishing, installing and testing a steel camera pole with lowering device, ground rod array and lightning dissipater at the locations shown on the plans or as directed by the Engineer, all in accordance with the 2007 Virginia Department of Transportation Road and Bridge Specifications.
- The contractor shall furnish and install all power, video, and data cables necessary to provide connection points for camera video and PTZ control signals within the cabinet. The contractor shall also furnish and install any and all ancillary equipment required to provide a complete and fully operational CCTV camera system. The contractor shall verify that all wiring meets NEC requirements where applicable.

4.3 Measurement and Payment

- No separate payment will be made for coordinating with the utility companies or installing and integrating items associated with the work as described herein but the cost thereof will be considered incidental to other appropriate items of work.
- The cost of furnishing and installing the bond system shall be included in the unit price bid for each type and size of conduit wherein no separate measurement or payment will be made.
- 50 Foot CCTV Camera Poles will be measured in units of each and will be paid for at the Contract unit price per each. This price shall be full

compensation for furnishing and installing the camera pole, hardware, camera mount, lowering device, wiring, testing, pole design, mounting brackets and hardware (e.g., screws, nuts, bolts, etc.), documentation and incidentals necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Unit</u>
50 Foot CCTV Camera Pole.....	Each

5.0 CCTV Camera Control Cabinet

5.1 Specifications

5.1.1 Physical

- The Contractor shall develop and submit shop drawings for the CCTV Camera Control Cabinet and include any associated equipment as detailed within this specification
- The cabinet shall be secured to the CCTV camera pole and shall protect the electronics and interfaces against sustained wind forces of 90 mph, rain with 120 mph wind gusts, blowing sand and dust roadside pollutants from vehicle exhausts, blowing snow and heavy ice accumulations experienced in the projected area. Cabinet shall be a NEMA 4X rated enclosure, or better.
- The cabinet shall be weatherproof with the top of the enclosure crowned or slanted to the rear to prevent standing water. The cabinet shall provide protection against vandalism and theft of equipment. Each cabinet shall be supplied and installed with a standard lock assembly that meets the City of Hampton standard requirements
- The cabinet and door shall be constructed from 5052-H32 sheet aluminum, which has a thickness of 0.125". All welds shall be neatly formatted and free of cracks, blowholes and other irregularities
- A door restraint shall be provided to prevent door movement when open in windy conditions
- Door hinges shall be continuous and bolted to the cabinet and door utilizing V-20 stainless steel carriage bolts and nylon nuts. The hinges shall be made of 0.083" thick aluminum and shall have a 0.25" diameter stainless steel hinge pin. The hinge pin shall be capped at the top and bottom by a weld to prevent removal
- The door handle shall be stainless steel and have provisions for padlocking in the closed position.
- The cabinet shall be supplied with two sets of keys for each cabinet
- One shelf to be mounted inside cabinet
- Cabinet shall meet the minimum following dimensions: 30" H x 25" W x 15" D

5.1.2 Electrical

- Cabinet shall provide a single point interface for the incoming line voltage. The main circuit breaker shall be of 20 amps maximum and shall control power to all electrical sockets and termination points, fan, surge protector, and interior cabinet light.
- Cabinet shall supply transient suppression and line filtering for the main AC+ power as follows: transient protection for main AC power input shall be connected to the load side circuit breaker and withstand a 15,000-ampere surge current with an 8 by 20 microsecond wave form, 20 times at 3-minute intervals between surges without damage to the suppressor; limit the surge voltage to a 2,000-volt peak; and limit follow current to an appropriate level to prevent tripping of the main circuit breaker of the cabinet
- Cabinet shall supply a radio frequency interference filter rated at 50 amps. Filter shall be connected to the circuit breaker load side.
- Cabinet shall provide four standard 120 VAC socket type receptacles and be rated at 20 amps, two to be GFI type outlet and two non GFI; and a terminal strip in order to wire to 120 VAC, AC neutral and earth ground. Control cabinet equipment shall not be plugged into GFI outlets, unless otherwise approved by the Engineer.
- Contractor shall identify and provide mounting space for the wireless unit and wireless RF line suppressor
- Cabinet to contain a thermostatically controlled fan in the cabinet to maintain the temperature within the cabinet to that required by the equipment for outside temperature as specified. The size of the fan installed shall be such that the ambient air temperature within the cabinet under worst case outside temperature and solar loading conditions does not exceed the maximum operating temperature specifications for all equipment within the cabinet. Fan shall be located at the top of cabinet and have an adjustable thermostat.
- Air venting shall contain an air filter. The filter shall have an average rated efficiency of 30% and an arrestance of 90% when tested in accordance with ASHRAE 521-1992 test standard. The filter shall be listed and rated class 2 by the Underwriters Laboratories. Filter shall be located below the fan.
- Intake and exhaust vents shall meet NEMA 4 requirements with and without powering the air venting arrangements. All exhaust vents shall be furnished with a screen to prevent insects from entering the cabinet
- Cabinet shall contain a mounted fluorescent lamp and be controlled by a door on/off switch
- Cabinet shall be grounded as specified by NEMA code

5.2 Installation

- Cabinet shall be grounded as specified by NEMA code
- All conduits shall enter/exit the cabinet from the bottom
- Cabinet shall not be oriented on pole in a manner that will impede the lowering of the camera assembly on 50' CCTV Camera Pole
- Cabinet must be thoroughly fastened to the CCTV Camera Pole. Attachment method shall be submitted to the Engineer for approval.
- Provisions shall be made for all data, control, and confirmation connections between the CCTV Camera Assembly and CCTV Camera Control Cabinet, and for any required wiring harnesses and connectors. All wiring panels (terminal blocks) shall be neatly finished and clearly and permanently marked with identifications applied by silk screening. All conductors and communication cable shall be neatly arranged in the cabinet and bundled in groups with cable ties. Use permanent labeling for all cabling in the cabinet to identify direction of communications for fiber jumpers and communications connections for ITS devices.
- The cabinet manufacturer's name shall appear only on the inside of the main cabinet door, along with the year and month of the cabinet's manufacture. This information shall be attached to the door by a method that is water resistant. The controller cabinet shall be provided with a unique serial number that is engraved on a metallic plate epoxied to the inside of the cabinet on the upper right-hand side wall.
- A heavy-duty re-sealable plastic bag shall be mounted on the backside of the main cabinet door for storing cabinet prints, a list of terminal block connections, and other documentation that may be subject to damage when exposed to sunlight or moisture.
- All equipment shall be placed in the cabinet according to the recommendations of the manufacturers. A minimum clearance of 6 inches shall be provided between the top of the cabinet and the top of any equipment placed on the top shelf of the cabinet. A minimum clearance of 2 inches shall be provided between each side of the cabinet and the equipment placed on the cabinet shelves.
- The Engineer shall complete inspections to verify that equipment cabinet type, features, accessibility, installation and condition, and internal wiring/labeling are in accordance with the contract specification.
- Cabinet Electrical Equipment Tests
 - Provide notice at least 10 days in advance of dates and times scheduled for tests that require the presence of the City's representative. The Contractor shall provide labor, equipment, and consumables required for the specified tests.
 - Low-voltage cables, where present, shall be tested for insulation resistance after the cables are installed, in their final configuration, ready for connection to the equipment, and prior to energizing.

The test voltage shall be 500 volts dc, applied for one minute between each conductor and ground and between all possible combinations conductors in the same trench, duct, or cable, with all other conductors in the same trench, duct, or conduit. The minimum value of insulation shall be equal to or greater than manufacturer requirements.

- Cabinet electrical, equipment grounding, and ventilation equipment shall be tested in accordance with manufacturer recommendations.

5.3 Payment

- CCTV Camera Control Cabinet will be measured in units of each and paid for at the contract unit price per each. This price shall be full compensation for furnishing, placement, and testing of all equipment and materials, and for all tools, labor, hardware, supplies, support, personnel training, testing, shop drawings, documentation, and incidentals necessary to complete the work.

Payment will be made under:

Pay Item	Unit
CCTV Camera Control Cabinet.....	Each

6.0 CCTV Camera Cable

6.1 Specifications

- The Contractor shall furnish and install all cables and connectors necessary for connecting the CCTV Camera Assembly to the Encoder in the cabinet. The Contractor shall install video feed, camera control including PTZ, communications signaling, and power supply conductors between the CCTV camera and the cabinet.
- Furnish cable for connection to CCTV Camera Assembly that contains video feed, camera control including PTZ, communications signaling, and power supply conductors in a single cable jacket that is rated for outdoor use. Furnish cable that is rated to meet outdoor temperature, water blocking, ultraviolet and insulation characteristics. Furnish cable that uses standard connections on both ends that are compatible with the equipment to which it will be connected. Furnish power connections of the conductor size that operate with voltage drop and signal loss characteristics required for the equipment being connected.
- Video input/output connections shall be BNC type and shall be compatible with Encoders, specified elsewhere in the Specifications.
- Cable shall be compatible with the CCTV Camera Assembly and Encoder and meet the following requirements:

- Shall contain at least three conductors of a minimum 22 AWG used for camera power between the Camera and the cabinet.
- Shall contain one RG-59U (75 ohm), 100% copper conductor, shielded cable with 95% minimum braided coverage used for composite video signal transmission between the Camera and the Encoder.
- Shall contain at least two twisted pairs with overall shield, and a data ground wire at least #26 AWG used for EIA-422 data communication between the Camera and the Encoder.

6.2 Installation

- Installation of cable shall be continuous from the CCTV camera assembly to the video encoder and/or power supply unit, no splicing of the CCTV Camera Cable shall be allowed outside the cabinet.
- Contractor shall either have the cable pulled through conduits, junction boxes, tie wrapped to overhead span cables or fed through cable rings to reach destination points inside traffic control cabinets or camera control cabinets as indicated on the plans.
- Contractor shall terminate cable ends as needed to make the proper connections to either the encoder unit, power supply, or CCTV camera assembly.

6.3 Measurement and Payment

- CCTV Camera Cable will be measured in units of linear feet and paid for at the contract unit bid price per linear foot. This price shall be full compensation for furnishing and installing the cabling, connectors, cable ties for aerial attachments, and for all materials, tools, testing, labor and incidentals necessary to complete the work. 100% payment in linear footage on the results of an acceptable video image and a camera control initiated at the encoder to the CCTV camera assembly. Check list item to be signed off by engineer or their designee.

Payment will be made under:

<u>Pay Item</u>	<u>Unit</u>
CCTV Camera Cable	Linear Feet

7.0 Cable Ties

7.1 Specifications

- Color – Black
- Environmental – Ultraviolet light protection
- Width – 0.3” minimum
- Tensile Strength – 40 lbs minimum
- Material – Nylon

- Type – Self locking
- Length – 11” minimum

7.2 Installation

- Contractor shall install ties along span wire locations as shown on plans
- Ties to be installed at a spacing distance no greater than 18”
- Contractor shall cut off excess tie material at locking joint

7.3 Payment

- Incidental to installation of CCTV Camera Cables, wherein no separate payment will be made.

8.0 Metered Electrical Service

Metered electrical service shall be installed in accordance with VDOT Standard Detail for SE-4 Electrical Service, and in accordance with the associated VDOT Road and Bridge Specifications.

8.1 Installation

- Install SE-4 at location shown on plans and position marked by Engineer or his/her designee
- Install 2” continuous riser on Dominion Virginia Power pole at locations shown on plans.
- Install 2” weather head on 2” riser
- Current limiting device shall be of circuit breaker type and rated at 20 amps
- Service line cable shall be of 4 AWG (copper or aluminum) and route continuously with no splices from meter base panel to outside of riser
- Loop at least five feet of service cable outside of riser
- Contact engineer 30 days prior to the use of the electrical service
- All wiring to include that of meter base to circuit breaker panel

8.2 Payment

- Electrical service (Type) will be measured in units of each and will be paid for at the contract unit price per each. This price shall include safety switches or breaker boxes, service entrance conductor cables from the utility company’s service box, conductors to the safety switch and circuit breaker box, conduits and fittings on poles and steel supports, conduit straps or clamps, meter base, service entrance heads, thimbleye bolts, steel supports, wireway, junction boxes for grounding electrode and utility service, excavation, concrete, and pickup and installation of meter base.

Electrical service will be paid upon successful inspection including electrical test on load side breaker.

Payment will be made under:

<u>Pay Item</u>	<u>Unit</u>
SE-4 Electrical Service.....	Each

9.0 Wireless Radio System

9.1 Specifications

- Shall be in accordance with Section 700 of the Virginia Department of Transportation (VDOT) Road & Bridge Specifications.

9.1.2 Wireless TX/RX Units

- Technology – 802.16d-2004 WiMAX
- Modulation – OFDM w/FEC and configurable ARQ
- Frame Duration – 5 ms, 8 ms, 10 ms, 20 ms, at a minimum
- Duplex Method – TDD with GPS synchronization, fixed or dynamic duty cycle
- Output Impedance – 50 ohms
- Configurations – Single box access point and single box remote
- Frequency range – 902 to 928 MHZ, unlicensed
- Channel Size – 3.5 MHZ
- Carrier Power – 100mW to 1 W
- Physical Interface – Ethernet 10/100 BaseT, RJ-45; Serial 1,200 to 115,000 kbps, com1, RS-232 DB -9F
- Antenna Connections – TX/RX TNC connectors,
- LED Indicators – PWR, LAN, LINK, COM1
- Protocols – Ethernet, IEEE 802.3, spanning tree (bridging), VLAN, IGMP; TCP/IP, DHCP, ICMP, UDP
- Serial – Active Modbus TCP and transparent TCP server, TCP client, modbus TCP modbus RTU, UDP unicast, UDP modcast RSAP and DNP3
- Encryption – AES-128 with auto key rotation
- Authentication – 802.1x RADIUS EAP/TLS, PKI, PAP, CHAP
- Management – SSL, SSH, HTTPS
- Temperature - -22 degrees F to 158 degrees F
- Humidity – 95% at 104 degrees F (non condensing)
- Case – Die cast aluminum
- Dimensions – 2.25”H X 7.875”W X 4.875”D
- Weight – 2.2 lbs
- Input Voltage – 10 to 30 VDC
- Signal Rate (SR) at 3.5 MHZ – (16-QAM FEC ¾) 8.47 Mbps

- Aggregate Ethernet Throughput (AET) at 3.5 MHz – (16-QAM FEC ¾) 5.52 Mbps
- Access point Unit same or approved equivalent to GE/MDS model HGA9-3
- Remote Unit same or approved equivalent to GE/MDS model HGR9-3
- Installation
 - Prior to installation units shall be bench tested and programmed by City forces. Contractor shall supply units to City a minimum of two (2) weeks in advance of installation.
 - Access point units shall be installed inside the traffic controller cabinet receiving signals from the CCTV Camera Cabinet and remote units shall be installed inside the CCTV Camera Cabinet as shown on plans
 - Mount units inside cabinet using supplied hardware and other hardware (screws) needed to complete physical attachment
 - Link connection must be achieved to pass wireless performance test

9.1.2 Antennas

- Frequency – 890 to 960 MHz
- Gain - > 8.0 dBi
- Polarization – Horizontal or Vertical
- Horizontal Beam Width – 54 degrees
- Vertical Beam Width – 48 degrees
- Impedance – 50 Ohms
- Max. Input Power – 100 Watts
- VSWR - <1.5:1 average
- Elements – at least 5
- Mounting – 2" diameter mast max.
- Lightning Protection – DC short
- Connector – N/female
- Wind Survival – 115 mph
- Weight – less than 2.5 lbs
- Yagi type
- Installation
 - All antennas to be mounted in a vertical alignment
 - Antennas mounted at the access point site will be mounted on a tubular pipe and above the mast arm assembly and close to the mast pole. The tubular pipe is to be fastened to the mast pole by a bracket device that straps around the mast arm and must be secured in place to prevent movement under windy conditions
 - Mounting bracket and tubular pipe at the Cunningham Drive and Executive Drive location shall be black in color
 - Antennas to be oriented in the direction as shown on plans
 - Antennas mounted on 30' CCTV Camera Poles shall not exceed a height of 35' and be no lower than 30'. Antennas mounted at a signalized intersection shall be installed along the mast arm in close proximity to the

mast pole. On 50' CCTV Camera Poles, antennas shall be mounted at least 35' and no higher than 40' and shall not impede the lowering of camera to ground level.

- A sketch or shop drawing on the astrobrackets, tubular pipe(s), antenna connection and other inclusive hardware shall be submitted to the Engineer for approval a minimum of two (2) weeks prior to installation.

9.1.3 Lightning Surge Protector/Arrestor

- Frequency Range - 0 to 3.0 GHz
- VSWR – 1:1.3 Max
- dB Loss – 0.4 dB Min
- Impedance – 50 Ohms
- Gas Tube Voltage Rating – 230V
- Connectors – N/female, both ends
- Installation
 - Mounted inside CCTV camera cabinet
 - Unit must have separate ground wire and be properly grounded

9.1.4 Power Supply

- 115 VAC to 10 -30 VDC (22 watt minimum)
- Power supply shall connect via standard NEMA 5-15R 115 VAC receptacle.

9.2 Installation

9.2.1 Wireless RX/TX Units

- Installation by manufacturer's recommendations
- Programming and integration by City
- Perform a radio path Site Survey test before installing any equipment. Ensure the test evaluates the Signal Strength (dBm), Fade Margin (dB), Signal-to-Noise Ratio, Data Integrity (poll test), and a complete frequency spectrum scan. Ensure the radio path site survey test is performed using the supplied brand of radio equipment to be deployed. During the initial radio path signal strength test it may be determined that a repeater station may be necessary to complete the intended link. Provide the test results to the City for review and approval. Submit copies of the test results and colored copies of the frequency spectrum scan along with an electronic copy of this information. Install an antenna splitter cable at locations where it is determined that a dual antenna configuration is necessary to accommodate communications in multiple directions.
- Install the antenna in such a manner that avoids conflicts with other utilities (separation distances in accordance with the guidelines of the National Electrical Safety Code) and as specified in the antenna manufacturer's recommendations. Secure the antenna mounting hardware to the pole and route the coaxial cable such that no strain is placed on the coaxial connectors. Contractor shall use latest version of manufacturer-provided mounting hardware.

- Install the coaxial cable shield grounding system by removing the outer jacket of the coaxial cable without damaging the cable shield. Install the shield grounding system following the cable manufacturer's recommendations. Install and make weatherproof the connection using the appropriate weatherproofing materials and following the manufacturer's recommendations. On metal poles, secure the #6 AWG grounding lead cable to the pole using a City approved method.
- Do not exceed the manufacturer recommended bend radius of the coaxial cable as it traverses from the cabinet to the antenna assembly. Connect the lightning arrestor to the coaxial cable (or shielded twisted pair alternate cables) in the equipment cabinet. Properly ground and secure the arrestor in the cabinet. Permanently label all cables entering the cabinet.
- Place a copy of all manufacturer equipment specifications and instruction and maintenance manuals in the equipment cabinet.

9.2.2 Wireless Unit Testing

At a minimum, the contractor shall perform the following tests for the 900 MHz Wireless Radios.

- Verify that physical construction has been completed in accordance with the plans.
- Inspect the quality and tightness of ground and surge protector connections.
- Inspect the lightning arrestor system.
- Verify proper voltages for all power supplies and related power circuits.
- Connect devices to the power sources.
- Verify all connections, including correct installation of communication and power cables.
- Verify signal strength and line of sight between antennae.
- Verify available bandwidth between radios.
- Perform connectivity testing to directly connected cabinet network switch and connected Ethernet devices.

9.3 Payment

- Wireless Radio System will be measured in units of each and paid for at the contract price per each Wireless Radio System furnished, installed, and accepted. Price shall include any necessary repeater systems. Price also includes the appropriate antenna, coaxial RF cable, splitter cable, coaxial cable shield grounding system with weatherproofing, lightning arrestor, labeling and integration with locally attached controllers and network devices. All power supplies, power cords, adapters, antenna mounting hardware, connectors, serial cables, signs, decals, disconnect switches, installation materials and configuration software necessary to complete this work, including the radio path site survey test and warranties, will be incidental. Final payment will be made when work is accepted by the

Engineer. 70% of the unit price will be paid for after installation with the remaining 30% of the bid price paid after a 30-day burn-in test with no major hardware failures.

Payment will be made under:

<u>Pay Item</u>	<u>Unit</u>
Wireless Radio System	Each

10.0 Wireless Coaxial RF Cable

10.1 Specifications

- Shall be in accordance with Section 700 of the Virginia Department of Transportation (VDOT) Road & Bridge Specifications
- Equivalent to LMR-400 flexible communication cable
- Minimum bend radius – 1.0"
- Bending moment 0.5 ft lbs
- Weight – 0,068 lbs/ft
- Tensile strength – 160 lbs
- Inner conductor – Solid BCCAI, 0.108",
- Dielectric - foam polyethylene, 0.285"
- Outer conductor – Aluminum tape, 0.291"
- Overall braid – Tinned copper, 0.320"
- Standard jacket – Black polyethylene, 0.405"
- Cutoff frequency – 16.2 GHz
- Velocity of propagation – 85%
- Impedance – 50 ohms
- Capacitance – 23.9 pF/ft
- Inductance – 0.060 uH/ft
- Voltage withstand – 2,500 VDC
- Peak Power – 16 kW
- 900 MHz attenuation – 3.9 dB/100 ft
- Standard outdoor cable

10.2 Installation

- Cable shall be continuous with no splices and fitted with N type connectors between wireless unit and suppressor and suppressor to antenna
- Connection at antenna shall be wrapped in electrical rubberized tape and wrapped a second time with an electric vinyl tape
- On the 30' CCTV camera pole the cable shall exit the bottom of the CCTV camera cabinet, enter the interior of the pole and exit the pole at a point no less than 2 feet from the top of pole

- On the 50' CCTV camera pole cable shall run from the bottom of CCTV camera cabinet to the outside of pole to a location at least 35' from the base. Cable will be installed inside conduits as shown on plans.
- Cables located at access point sites shall exit mast arm assembly from the bottom of the mast arm with 12 inches of the mounting bracket assembly.

10.3 Measurement and Payment

- Item will be incidental to the wireless radio system. No separate measurement and payment will be made.

11.0 Encoder

11.1 Specifications

- Encoder shall meet or exceed the following requirements:
 - Shall be designed and fabricated in accordance with the requirements of the latest edition (and interim specifications) of the 2009 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, Fifth Edition
 - Simultaneous – Dual - MPEG-2/MPEG-4 (SP &ASP) Video Encoding for both NTSC & PAL
 - JPEG Frame Capture every 15 Seconds or Higher 1 to 6 Mbps for MPEG2 56 bps to 3.5 Mbps* for MPEG4
 - OSD (On Screen Display) on MPEG4 & JPEG Five Line and every line 30 Characters
 - Diagnostics and Programming via:
 - Front programming port (RS232)
 - Web Interface
 - SNMPv.2
 - Remotely via Hyper Terminal or Telnet
 - Watchdog Media Management System
 - SAP (System Announcement Protocol) 2 Low Speed data channels
 - RS-232/422/485
 - Up to 115.2 Kbps
 - UDP or TCP
- NEMA TS2 Requirement
 - Temperature -35C to +75C
 - Shock, Vibration and Transient
- Ethernet (IP)
 - 10/100 Mbps Interface
 - ARP, RTP, UDP, TCP, HTTP, DHCP
 - Unicast or IGMP.2 Multicast
- Dimensions
 - 8.5"W x 1.75"H x 12"D)
 - Card: 5.2"W x 0.9"H x 10.2"D

- Inputs and Outputs
 - Video 1 or 2 NTSC (EAI RS170)
 - 1 or 2 PAL (CCIR 624)
 - Both 1 volt p-p 75Ω 50Hz
 - Data 2 RS 232/422/485
- Video Parameters
 - Compression MPEG2, MPEG4 (SP&ASP) JPEG Frame Grabber
 - MPEG-4 Resolution, NTSC & PAL, D1 (4CIF) 720x480, 720x576, 1/2 D1 352x480 352x576, SIF 352x240 352x288, QSIF 176x120 176x144
 - MPEG-2 Resolution, D1 (4CIF) 720x480 720x576, 2/3 D1 480x480 480x576, 1/2 D1 352x480 352x576, SIF 352x240 176x288, Frame Rate 1 -30 FPS
 - Connectors BNC
 - Can be configured as a 2/4/J, 4/4, 4/J or 2J
- Stream Type
 - MPEG2 (Program, Elementary, Transport)
 - MPEG4 (Elementary RTP)
- Data Parameters
 - Format RS-232/422/485
 - Handshaking Software Selectable
 - Data Rate Up to 115.2 Kbps
 - Connectors RJ-45
 - Network UDP or TCP
- Programming and Diagnostics
 - Front Programming Port (RS232)
 - Web Interface
 - SNMP(v.2)
 - Telnet
 - Watchdog (Media Management) System
- Power
 - 95-130VAC, 200-240VAC
 - 58mA @ 120VAC
- Environmental NEMA TS-2 2003, Section 2
 - Temperature -34 degrees C to +74 degrees C
 - Humidity 0-95% Non-Condensing
 - Passes Shock, Vibration & Transients
- Network Parameters
 - Data Rate 1 to 6 Mbps* for MPEG2
 - 56 Kbps to 3.5 Mbps* for MPEG4
 - Ethernet RJ-45
 - Interface 10/100 BaseT
 - Protocols IEEE 802.3 Static or DHCP
 - UDP, IP(v.4), IGMP(v.2) Multicast
 - Multicast IP Unique for MPEG2
 - Unique for MPEG4

11.2 Installation

- Installation shall be within the traffic control cabinet or wireless cabinet as shown on plans.
- Unit power shall be plugged into a spare 115VAC receptacle designated by the City for such usage.
- Two units to be furnished only

(a) Field Test Requirements:

The contractor shall perform local Operational Test at the device field site and end-to-end video streaming tests as required by the Engineer in order to demonstrate compliance with City's specifications. Testing will include, but not be limited to, the following:

- Verify that physical construction has been completed as detailed in the project documents.
- Inspect the quality and tightness of ground and surge protector connections.
- Verify proper voltages for all power supplies and related power circuits.
- Connect devices to the power sources.
- Verify all connections, including correct installation of communication and power cables.
- Verify video image is present and free from over-saturation and any other image defect in both color and monochrome mode.
- Verify network connection to the Encoder and the TCC through ping and/or telnet session from a remote PC.
- Verify serial data transmission through the Encoder serial ports for camera control across the network from a PC using camera vendor's control software.
- Verify video streaming to TCC network (unicast or multicast as directed by the Engineer).

(b) TCC Integration Testing:

Upon completion of the Operational Test, the contractor shall coordinate with the TCC to perform 30-day TCC integration testing for each Encoder and Decoder site according to the following:

- Transparent communications pass-through to associated CCTV and other attached devices.
- Remote control integration of changing designated video sources monitored by installed Decoders.
- Unicast and/or multicast compatibility with TCC central Coretec video management software when used for decoding.

11.3 Payment

-

Encoder will be measured in units of each and paid for at the contract unit bid price per each. All cabling, testing, software, or other labor or materials required to install and integrate the encoder, as well as training and documentation will be considered incidental and not be paid for separately. Seventy percent (70%) of the unit price bid for this item will be paid upon delivery of materials, successful installation of the Encoder, all wiring of Encoder Unit to the CCTV camera system inside of the controller cabinet, and successful video image and camera communication control Operational Testing by the engineer or their designee for a fully operational CCTV at each site. Thirty Percent (30%) of the unit will be paid upon successful completion of the TCC Integration Testing, Training, and delivery of related documentation. If encoder unit exhibits a major failure any time during this test, the thirty day test shall start over.

Encoder (Furnish Only) will be measured in units of each and paid for at the contract unit bid price per each. Price includes all cabling, materials, software, documentation, and incidentals necessary to deliver a functional encoder to the City.

Payment will be made under:

Pay Item	Unit
Encoder	Each
Encoder(Furnish Only).....	Each

12.0 Wire – THHN Type 8 Gauge

12.1 Specifications

- #8 AWG containing 19 strands copper conductors rated at 600 volts per ASTM-B3, ASTM-B787 and ASTM-B8
- Shall be in accordance with Section 700 of the Virginia Department of Transportation (VDOT) Road & Bridge Specifications
- Cross-sectional area – 23.61 mm²
- Insulation to be color coded, polyvinyl chloride (PVC) heat and moisture-resistant, flame-retardant compound per UL 1063 and UL 83
- Other jacket to have a tough polyamide, nylon covering per UL 1063 and UL 83. Slick nylon outer jacket for easy pulling
- Allowable Ampacities – 40 @ 60 degrees C
- Jacket shall be black in color

12.2 Installation

- Wire to be installed continuously from electric service load side circuit breaker to the line side circuit breaker within the CCTV Camera Control Cabinet as shown on plans

- Installation will include one cable for 120 VAC + and one for neutral
- Clearly label neutral conductor on both ends

12.3 Payment

- 100% per linear foot with successful inspection including voltage test at CCTV Camera Control Cabinet

13.0 Conduit Trenched – 1.25 Inch

13.1 Specifications

- Shall be in accordance with Section 700 of the Virginia Department of Transportation (VDOT) Road & Bridge Specifications
- Schedule 80 PVC or High Density Polyethylene (HDPE)
 - Conforms to NEMA TC 2, UL 651
 - Conduit dimensions:
 - Average O.D. – 1.660"
 - Approximate I.D. – 1.36"
 - Min. wall thickness – 0.14"
 - Approximate weight – 46 lbs/100'
 - Each length includes an integral bell end which will not require use of an additional coupling between conduit sections
- High Density Polyethylene (HDPE)
 - Conforms to ASTM D3035/F 2160
 - Smooth interior and smooth exterior wall
 - Resin Properties
 - ASTM test D-1505 density g/CM 3, 0.941-0.955
 - ASTM test D-1238 Melt index, g/10 min Condition E, 0.05-0.50
 - ASTM test D-638 Tensile strength (psi) 3000 min
- Conduit dimensions:
 - Nominal size: 1.25"
 - Nominal I.D. - 1.292"
 - Nominal O.D. – 1.66"
 - Min. wall – 0.184"
 - Approximate weight – 37 lbs/100'
 - Pulled tensile safe – 953 lb

13.2 Installation

- Conduit to be installed after a trench line provides space
- Install at a depth required by NEC for the voltage/current that passes through
- Conduit system to be continuous with no separations
- Conduits adhered together by an acceptable PVC glue
- Backfill trench with earth ground material and compact
- Reseed area with an approved product and rack in seed

- **Hydraulic Cement Concrete Sidewalk** (in accordance with VDOT Specification Section 504) shall be modified to include repair and replacement of existing concrete sidewalk at locations shown in the Plans.
- **Modify Junction Box:** Contractor shall modify existing junction boxes where indicated on the Plans to accommodate proposed conduit entries.

13.3 Payment

- **Conduit Trenched (Size)** will be paid for at the contract linear foot price. The price shall include installation of conduit, trenching, plowing, conduit bodies, fittings, junction box modifications, bonding systems, pull ropes, duct plugs, warning tape, plastic spacers, tone wire when required, supports, tools, aggregate, excavating, backfilling, restoration materials, compacting, disposing of surplus and unsuitable material, and restoring existing areas.
- **Concrete Repair (sidewalk)** will be measured in square yards of finished surface for a 4" deep sidewalk, complete-in-place, and will be paid for at the contract unit price per square yard. Each structure located within the limits of the sidewalk having an area greater than 1 square yard will be excluded in computing the square yards of sidewalk. Price shall include removal and disposal of existing concrete sidewalk section at locations shown in the Plans.

Payment will be made under:

<u>Pay Item</u>	<u>Unit</u>
Conduit Trenched (1.25")	Linear Feet
Concrete Repair (Sidewalk)	Square Yards

14.0 Conduit Bored - 1.25 Inch

14.1 Specifications

- Shall be in accordance with Section 700 of the Virginia Department of Transportation (VDOT) Road & Bridge Specifications
- Same specification as 13.1 or High Density Polyethylene (HDPE)

14.2 Installation

- As shown on plans
- **Modify Junction Box:** Contractor shall modify existing junction boxes where indicated on the Plans to accommodate proposed conduit entries.

14.3 Payment

- **Conduit Bored (Size)** will be paid for at the contract linear foot price. The price shall include installation of conduit, directional drilling, conduit bodies, fittings, junction box modifications, bonding systems, pull ropes,

duct plugs, tone wire when required, supports, tools, aggregate, excavating, backfilling, restoration materials, compacting, disposing of surplus and unsuitable material, and restoring existing areas.

Payment will be made under:

<u>Pay Item</u>	<u>Unit</u>
Conduit Bored (1.25")	Linear Feet

15.0 Conduit Riser – 1.25 Inch

15.1 Specifications

- Shall be in accordance with Section 700 of the Virginia Department of Transportation (VDOT) Road & Bridge Specifications
- Rigid steel conduit shall be mild steel, manufactured, hot-dipped galvanized inside and out.
- Meets ANSI, C80.1
- Meets NEC Code, 2002 article 344 (1999 NEC, article 346)
- Federal Spec WW-C-581 (Class 1 Type A)
- End caps supplied per unit
- Weights and Dimensions
 - Trade Size - 1.5 inches
 - O.D. – 1.660"
 - Nominal I.D. – 1.38"
 - Weight – 218 lbs/100'

15.2 Installation

- If connecting and joining PVC or HDPE conduit, the steel portion of the riser must be at least 6" into the ground.
- Conduit must be secured to pole either by banding or
- Top of riser where cable enters must contain a bushing to prevent cable from chaffing
- Top of riser must be below span or mounted antenna
- Inside bell end cap shall contain a duct putty type material encapsulating wire and interior walls of bell end to prevent precipitation and animal entry.
- Riser that enters the CCTV Camera Control Cabinets must enter only through the bottom.
-

15.3 Payment

- Conduit Riser (Size) will be paid for at the contract linear foot price. The price shall include installation of conduit riser, conduit bodies, fittings, bonding systems, pull ropes, duct plugs, supports, protective metal shields, covers, tools to remove the cover, ground rods, ground

conductors, grounding lugs, disposing of surplus and unsuitable material, and restoring existing areas.

Payment will be made under:

<u>Pay Item</u>	<u>Unit</u>
Conduit Riser (1.25")	Linear Feet

16.0 Decoder

16.1 Specifications

- Shall be designed and fabricated in accordance with the requirements of the latest edition (and interim specifications) of the 2009 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, Fifth Edition
- Features MPEG-1, MPEG-2, MPEG-3 (SP & ASP), H.264, WM-9 and JPEG decoding
- Low speed data channel (RS-232/422/485) communications port
- Ethernet interface data transfer 10/100 Mbps
- Provides full motion video (30fps) up to broadcast quality
- Extended temperature Range (-20 degrees C. to 70 degrees C) with 0 to 95% non-condensing
- Decoder shall be compatible with the Card Cage Chassis as specified in Section 17.0
- 8.5"W X 1.75"W X 12.0"D @ 5 lbs 2 oz
- Output video formats: S-Video, RGB, DVI, Composite video NTSC (EIA RS170) PAL (CCIR 624)
- Power requirement: 95-130 VAC @ 58mA

16.2 Installation

- Equipment to be installed, integrated, and tested by City (contractor coordination shall be included/incidental with the Encoder pay item)

16.3 Payment

- **Decoder (Furnish Only)** will be measured in units of each and paid for at the contract unit bid price per each. Price includes all cabling, materials, software, documentation, and incidentals necessary to deliver a functional decoder to the City.

Payment will be made under:

<u>Pay Item</u>	<u>Unit</u>
Decoder (Furnish Only)	Each

17.0 Card Cage Chassis

17.1 Specifications

- Shall be designed and fabricated in accordance with the requirements of the latest edition (and interim specifications) of the 2009 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, Fifth Edition
- 19" rack mounted card cage that accommodates twelve (12) modules of decoders as specified in Section 16.0.
- Extended temperature range (-20 degrees C to 70 degrees C)
- 19"W X 15"L X 6.9"H; displaces 4U slots
- Input power 85-264 VAC with 200 watts consumption
- Equipped with 12 cover plates
- Slot width 0.93"
- Made of 0.125" aluminum

17.2 Installation

- Equipment to be installed within equipment rack located in the Transportation Control Center (TCC) at 419 N. Armistead Ave. Unit to be installed, powered, and tested by City.

17.3 Payment

- **Decoder Card Cage (Furnish Only)** will be measured in units of each and paid for at the contract unit bid price per each. Price includes all cabling, mounting hardware and adapters, materials, documentation, and incidentals necessary to deliver a functional decoder card cage ready for installation at the TCC by the City staff.

Payment will be made under:

<u>Pay Item</u>	<u>Unit</u>
<u>Decoder Card Cage (Furnish Only)</u>	<u>Each</u>