



Request for Quote

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
 ONE CAPITOL HILL
 PROVIDENCE RI 02908

CREATION DATE : 15-AUG-14
 BID NUMBER: 7548938,
 TITLE: ITS ON-CALL CONSTRUCTION SERVICES - DOT
 BLANKET START : 01-OCT-14
 BLANKET END : 30-SEP-17
 BID CLOSING DATE AND TIME: 05-SEP-2014 11:00:00

BUYER: Hill, Lisa
 PHONE #: 401-574-8118

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 DOT ACCOUNTS PAYABLE
 TWO CAPITOL HILL, RM 230
 SMITH ST
 PROVIDENCE, RI 02903
 US

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 DOT TRAFFIC MANAGEMENT CENTER
 TWO CAPITOL HILL, RM 144
 PROVIDENCE, RI 02908
 US

Requisition Number: 1381940

Note to Bidders:
 NO BID SURETY IS REQUIRED, HOWEVER SUCCESSFUL BIDDER WILL BE REQUIRED TO FURNISH A 100% PERFORMANCE AND PAYMENT BOND FOR ORDERS PLACED THAT ARE EQUAL TO OR GREATER THAN \$50,000.00.
 : THERE WILL BE A PRE-BID ON

AUGUST 21, 2014
 AT 11:00 AM
 2 CAPITOL HILL
 PROVIDENCE, RI

Line	Description	Quantity	Unit	Unit Price	Total
1	10/1/14-9/30/17 202.0200 ROCK EXCAVATION COMMON	3.00	Cubic Yard		
2	10/1/14-9/30/17 205.0240 TRENCH ROCK EXCAVATION (0-7")	3.00	Cubic Yard		
3	10/1/14-9/30/17 901.0101 GUARDRAIL STEEL BEAM SINGLE FACE EARTH AND ASPHALT	100.00	Linear Foot		
4	10/1/14-9/30/17 901.0192 GUARDRAIL STEEL BEAM ANCHORAGE TRAILING END SECTION STANDARDS 34.3.1 AND 34.3.4	3.00	Each		
5	10/1/14-9/30/17 901.9901 GUARDRAIL APPROACH TERMINAL SECTION	3.00	Each		
6	10/1/14-9/30/17 905.9901 PVMS CONCRETE PAD	3.00	Each		
7	10/1/14-9/30/17 919.0101 TEST PITS	3.00	Each		
8	10/1/14-9/30/17 937.9901 MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 1	3.00	Day		
9	10/1/14-9/30/17 937.9902 MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 2	3.00	Day		
10	10/1/14-9/30/17 937.9903 MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 3	3.00	Day		
11	10/1/14-9/30/17 937.9904 MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 4	3.00	Day		
12	10/1/14-9/30/17 937.9905 MAINTENANCE AND	3.00	Day		

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AUGUST 21, 2014
 AT 11:00 AM
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 PROVIDENCE, RI

Line	Description	Quantity	Unit	Unit Price	Total
	PROTECTION OF TRAFFIC - TYPE 5				
13	10/1/14-9/30/17 937.9906 MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 6	3.00	Day		
14	10/1/14-9/30/17 937.9907 MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 7	3.00	Day		
15	10/1/14-9/30/17 937.9908 MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 8	3.00	Day		
16	10/1/14-9/30/17 937.9909 MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 9	3.00	Day		
17	10/1/14-9/30/17 937.9910 MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE-10	3.00	Day		
18	10/1/14-9/30/17 T03.9901 GROUND ROD ARRAY	3.00	Each		
19	10/1/14-9/30/17 T03.9902 LIGHTNING DISSIPATER	3.00	Each		
20	10/1/14-9/30/17 T04.6902 '2' STRANDED COPPER CONDUCTOR 600V INSULATION	100.00	Linear Foot		
21	10/1/14-9/30/17 T04.6906 '6' STRANDED COPPER CONDUCTOR 600V INSULATION	500.00	Linear Foot		
22	10/1/14-9/30/17 T04.9901 WEATHERPROOF CATEGORY 6 UTP ? 4 PAIR 23 AWG CABLE	1,000.00	Linear Foot		
23	10/1/14-9/30/17 T04.9902 16 AWG 3 CONDUCTOR CABLE	1,000.00	Linear Foot		

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Autobidder Suspension: THERE WILL BE A PRE-BID ON

AUGUST 21, 2014

AT 11:00 AM

2 CAPITOL HILL

PROVIDENCE, RI

Line	Description	Quantity	Unit	Unit Price	Total
24	10/1/14-9/30/17 T05.0100 PRECAST TYPE A HANDHOLE STANDARD 18.2.0	3.00	Each		
25	10/1/14-9/30/17 T05.9901 BREAK INTO EXISTING HANDHOLE.	3.00	Each		
26	10/1/14-9/30/17 T05.9902 BREAK INTO EXISTING MANHOLE	3.00	Each		
27	10/1/14-9/30/17 T05.9903 DEWATERING	3.00	Each		
28	10/1/14-9/30/17 T06.1020 2 IN. RIGID STEEL CONDUIT - UNDERGROUND	500.00	Linear Foot		
29	10/1/14-9/30/17 T06.2020 2 IN. RIGID STEEL CONDUIT - OVERHEAD	100.00	Linear Foot		
30	10/1/14-9/30/17 T06.3020 2 IN. RIGID STEEL CONDUIT - UNDER EXISTING PAVEMENT	100.00	Linear Foot		
31	10/1/14-9/30/17 T06.5020 2 INCH POLYVINYL CHLORIDE PLASTIC CONDUIT - UNDERGROUND	100.00	Linear Foot		
32	10/1/14-9/30/17 T06.6020 2 INCH POLYVINYL CHLORIDE PLASTIC CONDUIT - OVERHEAD	100.00	Linear Foot		
33	10/1/14-9/30/17 T06.9901 WEATHER HEAD INSTALLATION ON EXISTING POLE	3.00	Each		
34	10/1/14-9/30/17 T06.9902 DUAL 1 1/4 INCH HIGH DENSITY POLYETHYLENE DUCT - UNDER EXISTING PAVEMENT	100.00	Linear Foot		
35	10/1/14-9/30/17 T06.9903 SINGLE 1 1/4 INCH HIGH DENSITY POLYETHYLENE DUCT - UNDER EXISTING	100.00	Linear Foot		

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Additional Description: THERE WILL BE A PRE-BID ON
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 PROVIDENCE, RI

Line	Description	Quantity	Unit	Unit Price	Total
	PAVEMENT				
36	10/1/14-9/30/17 T06.9904 DUAL 1 1/4 INCH HIGH DENSITY POLYETHYLENE DUCT - UNDERGROUND	100.00	Linear Foot		
37	10/1/14-9/30/17 T06.9905 SINGLE 1 1/4 INCH HIGH DENSITY POLYETHYLENE DUCT - UNDERGROUND	100.00	Linear Foot		
38	10/1/14-9/30/17 T06.9906 DUAL 2 INCH HIGH DENSITY POLYETHYLENE DUCT - UNDERGROUND	100.00	Linear Foot		
39	10/1/14-9/30/17 T06.9907 SINGLE 2 INCH HIGH DENSITY POLYETHYLENE DUCT - UNDERGROUND	100.00	Linear Foot		
40	10/1/14-9/30/17 T06.9908 DUAL 3 INCH HIGH DENSITY POLYETHYLENE DUCT - UNDERGROUND	100.00	Linear Foot		
41	10/1/14-9/30/17 T06.9909 SINGLE 3 INCH HIGH DENSITY POLYETHYLENE DUCT - UNDERGROUND	100.00	Linear Foot		
42	10/1/14-9/30/17 T11.6006 SPAN AND MESSENGER WIRES 6/16	100.00	Linear Foot		
43	10/1/14-9/30/17 T11.9901 SERVICE POLE STANDARD, WOOD 40 FOOT	3.00	Each		
44	10/1/14-9/30/17 T11.9902 SERVICE POLE STANDARD, WOOD 45 FOOT	3.00	Each		
45	10/1/14-9/30/17 T11.9903 INSTALL EXISTING 80 FOOT CAMERA POLE ON NEW FOUNDATION	1.00	Each		
46	10/1/14-9/30/17 T11.9904 40 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE AND	1.00	Each		

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Line	Description	Quantity	Unit	Unit Price	Total
	FOUNDATIONFOUNDATION				
47	10/1/14-9/30/17 T11.9905 50 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE AND FOUNDATION	1.00	Each		
48	10/1/14-9/30/17 T11.9906 60 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE AND FOUNDATION	3.00	Each		
49	10/1/14-9/30/17 T11.9907 80 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE AND FOUNDATION	3.00	Each		
50	10/1/14-9/30/17 T11.9908 PORTABLE LOWERING TOOL	3.00	Each		
51	10/1/14-9/30/17 T11.9909 MAST ARM 4 FOOT	3.00	Each		
52	10/1/14-9/30/17 T11.9910 MAST ARM 6 FOOT	3.00	Each		
53	10/1/14-9/30/17 T11.9911 MAST ARM 8 FOOT	3.00	Each		
54	10/1/14-9/30/17 T11.9912 MAST ARM 10 FOOT	3.00	Each		
55	10/1/14-9/30/17 T11.9913 MAST ARM 12 FOOT	3.00	Each		
56	10/1/14-9/30/17 T12.9150 METER SOCKET W/ MANUAL BY-PASS	3.00	Each		
57	10/1/14-9/30/17 T12.9901 METER PEDESTAL	3.00	Each		

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PRE-BID MEETING: THERE WILL BE A PRE-BID ON
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 PROVIDENCE, RI

Line	Description	Quantity	Unit	Unit Price	Total
58	10/1/14-9/30/17 T12.9902 DISCONNECT SWITCH	3.00	Each		
59	10/1/14-9/30/17 T12.9903 TRANSFORMER	3.00	Each		
60	10/1/14-9/30/17 T12.9904 GROUND MOUNTED CAMERA CONTROL CABINET AND FOUNDATION	3.00	Each		
61	10/1/14-9/30/17 T12.9905 POLE MOUNTED CAMERA CONTROL CABINET	3.00	Each		
62	10/1/14-9/30/17 T12.9906 BREAK INTO EXISTING CABINET	3.00	Each		
63	10/1/14-9/30/17 T12.9907 GROUND MOUNTED P SIZE REPLACEMENT CABINET	3.00	Each		
64	10/1/14-9/30/17 T12.9908 GROUND MOUNTED M SIZE REPLACEMENT CABINET	3.00	Each		
65	10/1/14-9/30/17 T12.9909 POLE MOUNTED M SIZE REPLACEMENT CABINET	3.00	Each		

Delivery: _____

Terms of Payment: _____

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Contract Terms and Conditions

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Terms and Conditions

BID STANDARD TERMS AND CONDITIONS

TERMS AND CONDITIONS FOR THIS BID

WAGE REQUIREMENTS

BIDDERS ARE ADVISED THAT ALL PROVISIONS OF TITLE 37 CHAPTER 13 OF THE GENERAL LAWS OF RHODE ISLAND APPLY TO THE WORK COVERED BY THIS REQUEST, AND THAT PAYMENT OF THE GENERAL PREVAILING RATE OF PER DIEM WAGES AND THE GENERAL PREVAILING RATE FOR REGULAR, OVERTIME, AND OTHER WORKING CONDITIONS EXISTING IN THE LOCALITY FOR EACH CRAFT, MECHANIC, TEAMSTER, OR TYPE OF WORKMAN NEEDED TO EXECUTE THIS WORK IS A REQUIREMENT FOR BOTH CONTRACTORS AND SUBCONTRACTORS. THE PREVAILING WAGE TABLE MAY BE OBTAINED AT THE RI DIVISION OF PURCHASES HOME PAGE BY INTERNET at www.purchasing.ri.gov. SELECT "BIDDING INFORMATION", THEN "GENERAL INFORMATION", AND THEN SELECT "PREVAILING WAGE TABLES". PRINTING THE ENTIRE DOCUMENT AVERAGES APPROXIMATELY ONE MINUTE PER PAGE - YOU MAY WANT TO PRINT ONLY THE PAGES APPLICABLE TO YOUR BID. BIDDERS NOTE: IN THE EVENT THIS BID SPECIFIES PRICE OFFERS ON A TIME-AND-MATERIALS BASIS, i.e., AN HOURLY RATE, ANY OR ALL BIDS SUBMITTED IN AN AMOUNT LESS THAN THE PREVAILING RATE IN EFFECT FOR THE WORK COVERED BY THIS REQUEST AS OF THE DATE OF BID ISSUANCE SHALL BE REJECTED BY THE DIVISION OF PURCHASES.

INSURANCE REQUIREMENTS

AN INSURANCE CERTIFICATE IN COMPLIANCE WITH PROVISIONS OF ITEM 31 (INSURANCE) OF THE GENERAL CONDITIONS OF PURCHASE IS REQUIRED FOR COMPREHENSIVE GENERAL LIABILITY, AUTOMOBILE LIABILITY, AND WORKERS' COMPENSATION AND MUST BE SUBMITTED BY THE SUCCESSFUL BIDDER(S) TO THE DIVISION OF PURCHASES PRIOR TO AWARD. THE INSURANCE CERTIFICATE MUST NAME THE STATE OF RHODE ISLAND AS CERTIFICATE HOLDER AND AS AN ADDITIONAL INSURED. FAILURE TO COMPLY WITH THESE PROVISIONS MAY RESULT IN REJECTION OF THE OFFEROR'S BID. ANNUAL RENEWAL CERTIFICATES MUST BE SUBMITTED TO THE AGENCY IDENTIFIED ON THE PURCHASE ORDER. FAILURE TO DO SO MAY BE GROUNDS FOR CANCELLATION OF CONTRACT.

NOTE: IF THIS BID COVERS CONSTRUCTION, SCHOOL BUSING, HAZARDOUS WASTE, OR VESSEL OPERATION, APPLICABLE COVERAGES FROM THE FOLLOWING LIST MUST ALSO BE SUBMITTED TO THE DIVISION OF PURCHASES PRIOR TO AWARD: * PROFESSIONAL LIABILITY INSURANCE (AKA ERRORS & OMISSIONS) - \$1 MILLION OR 5% OF ESTIMATED PROJECT COST, WHICHEVER IS GREATER. * BUILDER'S RISK INSURANCE - COVERAGE EQUAL TO FACE AMOUNT OF CONTRACT FOR CONSTRUCTION. * SCHOOL BUSING - AUTO LIABILITY COVERAGE IN THE AMOUNT OF \$5 MILLION. * ENVIRONMENTAL IMPAIRMENT (AKA POLLUTION CONTROL) - \$1 MILLION OR 5% OF FACE AMOUNT OF CONTRACT, WHICHEVER IS GREATER. * VESSEL OPERATION - (MARINE OR AIRCRAFT) - PROTECTION & INDEMNITY COVERAGE REQUIRED IN THE AMOUNT OF \$1 MILLION.

LICENSE REQUIREMENTS

VENDOR (OWNER OF COMPANY) IS RESPONSIBLE TO COMPLY WITH ALL LICENSING OR STATE PERMITS REQUIRED FOR THIS TYPE OF SERVICE. A COPY OF LICENSE/PERMIT SHOULD BE SUBMITTED WITH THIS BID. IN ADDITION TO THESE LICENSE REQUIREMENTS,

BIDDER, BY SUBMISSION OF THIS BID, CERTIFIES THAT ANY/ALL WORK RELATED TO THIS BID, AND ANY SUBSEQUENT AWARD WHICH REQUIRES A RHODE ISLAND LICENSE(S), SHALL BE PERFORMED BY AN INDIVIDUAL(S) HOLDING A VALID RHODE ISLAND LICENSE.

RIVIP INFO - BID SUBMISSION REQUIREMENTS

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MAILING ADDRESS FOR BID PROPOSALS ISSUED BY THE STATE OF RHODE ISLAND,
DIVISION OF PURCHASES

All Bid Proposals must be submitted by mail or hand delivered to:

- State of Rhode Island
- Department of Administration
- Division of Purchases, Second floor
- One Capitol Hill
- Providence, RI 02908-5855

DIVESTITURE OF INVESTMENTS IN IRAN REQUIREMENT:

No vendor engaged in investment activities in Iran as described in R.I. Gen. Laws §37-2.5-2(b) may submit a bid proposal to, or renew a contract with, the Division of Purchases. Each vendor submitting a bid proposal or entering into a renewal of a contract is required to certify that the vendor does not appear on the list maintained by the General Treasurer pursuant to R.I. Gen. Laws §37-2.5-3.

PURCHASE AGREEMENT BID

BIDDING (a) A single price shall be quoted for each item against which a proposal is submitted. This price will be the maximum in effect during the agreement period. Any price decline at the manufacturer's level shall be reflected in a reduction of the agreement price to the State. (b) Quantities, if any, are estimated only. The agreement shall cover the actual quantities ordered during the period. Deliveries will be billed at the single, firm, awarded unit price quoted regardless of the quantities ordered. (c) Bid price is net F.O.B. destination and shall include inside delivery at no extra cost. (d) Bids for single items and/or a small percentage of total items listed, may, at the State's sole option, be rejected as being non-responsive to the intent of this request. **ORDERING** (a) The User Agency(s) will submit individual orders for the various items and various quantities as may be required during the agreement period. (b) Exception - Regardless of any agreement resulting from this bid, the State reserves the right to solicit prices separately for any extra large requirements for delivery to specific destinations.

DELIVERY PER AGENCY

DELIVERY OF GOODS OR SERVICES AS REQUESTED BY AGENCY.

MULTI YEAR AWARD

THIS IS A MULTI-YEAR BID/CONTRACT. PER RHODE ISLAND STATE LAW 37-2-33, CONTRACT OBLIGATIONS BEYOND THE CURRENT FISCAL YEAR ARE SUBJECT TO AVAILABILITY OF FUNDS. CONTINUATION OF THE CONTRACT BEYOND THE INITIAL FISCAL YEAR WILL BE AT THE DISCRETION OF THE STATE. TERMINATION MAY BE EFFECTED BY THE STATE BASED UPON DETERMINING FACTORS SUCH AS UNSATISFACTORY PERFORMANCE OR THE DETERMINATION BY THE STATE TO DISCONTINUE THE GOODS/SERVICES, OR TO REVISE THE SCOPE AND NEED FOR THE TYPE

OF GOODS/SERVICES; ALSO MANAGEMENT OWNER DETERMINATIONS THAT MAY
PRECLUDE THE NEED FOR GOODS/SERVICES.



Plans and Specifications for

ITS On-Call Construction Services

to be performed at various statewide locations TBD, for the

Rhode Island Department of Transportation
Transportation Management Center

2 Capitol Hill, Room 140
Providence, RI 02903



JULY 2014



State of Rhode Island Department of Administration
Division of Purchases

REVISED
November 20, 2013

NOTICE TO VENDORS

Each bid proposal for a *public works project* must include a "public copy" to be available for public inspection upon the opening of bids. **Bid proposals that do not include a copy for public inspection will be deemed nonresponsive.**

The public copy must be submitted in .pdf (portable document file) format on a *read-only* CD-R media disc. The disc must include *all of the documents* submitted in response to the solicitation concatenated or merged into one file. The file must be named in the following manner:

BidNumber_DateofBid_VendorName_VendorID.pdf

The Bidder Certification Cover Form contains all of the information for the file name. The date of bid must appear as mm-dd-yyyy. The vendor name must appear as one word, with no spaces or punctuation. Underscores must separate the fields.

Example: 7543210_11-08-2013_OceanStateCompanyInc_9867.pdf

The public copy disc must be separately enclosed in a protective cover clearly marked "Public Copy" and include the following information (all available from the Bidder Certification Cover Form): (1) title of solicitation; (2) name of bidder and RIVIP vendor ID number; (3) bid number; and (4) date of bid.

The public copy may redact any trade secrets or commercial or financial information which is of a privileged or confidential nature pursuant to the "Access to Public Records Act," R. I. Gen. Laws §§ 38-2-1 *et seq.*

For further information on how to comply with this statutory requirement, see R. I. Gen. Laws §§ 37-2-18(b) and (j). Also see Procurement Regulation 5.11 accessible at www.purchasing.ri.gov



State of Rhode Island
Division of Purchases

Public Works
Bid Preparation Checklist

Date: 8/15/2014

Bid#: 7548935

Title: ITS ON-CALL CONSTRUCTION SERVICES

This checklist is provided to assist the bidder in preparing a bid proposal for submission. It is not a substitute for a thorough review of the Instruction to Bidders nor a comprehensive list of all bid proposal requirements. Each bidder is responsible to review the Instructions to Bidders and to comply with all requirements of the Solicitation.

Bid Proposal Package:

- RIVIP Bidder Certification Cover Form (completed) signed in ink
- Bid Form
 - All applicable blank spaces on the Bid Form have been completed
 - All Addenda have been acknowledged
 - Bid price printed legibly in ink (in both words and figures that match where specified)
 - Erasures or corrections have been initialed by person signing the Bid Form
 - Bid Form is signed in ink
- Bid Surety
 - Bid bond or certified check (for DOT projects, bid bond only)
 - Bid surety is five percent of the bid total (or such other specified amount)
 - Bid Bond is signed by the bidder and surety
 - Power of Attorney is attached to the Bid Bond showing the name of person who signed the surety bond
- Public Copy of bid proposal in pdf format on a read-only CD-R media disk
- General Contractor Apprenticeship Certification Form "2013-14" (for projects \$1,000,000 and greater) required at time of bid proposal submission

Note: General Contractor Apprenticeship Re-Certification and Certification Form "2013-16" and Subcontractor Apprenticeship Certification Form "2013-15" are not required at time of bid proposal submission deadline.

- Applicable professional licenses (as specified in the Solicitation)
- Rhode Island Contractor Registration Board No.
- All bid proposal documents in a sealed envelope with the specific Solicitation #, Solicitation title, and the bid proposal submission deadline marked in the upper left hand corner of the envelope
- Each bid proposal submitted in a separate sealed envelope
- Completed Form W-9
- Other _____

Buyer Name: LISA HILL

Contact Information: 401-574-8118

GENERAL PROVISIONS – CONTRACT SPECIFIC

INDEX

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1. BRIEF SCOPE OF WORK:

The work under this contract is for **ITS On-Call Construction Services** for the Rhode Island Transportation Management Center for a period of THREE (3) YEARS. The project includes, but is not limited to, the furnishing and installation of closed circuit television (CCTV) camera poles, controller cabinets, utility connections and wiring, and all necessary conduits and hand holes; installation of new guardrail and maintenance and protection of traffic. This bid solicitation includes a list of items anticipated to be constructed under this contract, however no guarantee is made that all items will be used or the quantities bid for each item will be ordered and delivered. Some items may exceed the estimated bid and some may not meet the bid quantities. All work will be performed on State owned limited access and/or arterial type roadways. It will be the contractor's responsibility to coordinate with utility companies and locate all existing utilities within the requested construction work area.

2. NOTICE TO CONTRACTOR:

The basis of award of the contract will be the total bid price. The State reserves the right to make a single award or multiple awards or to reject any or all proposals based on what it considers to be in its best interest.

The State of Rhode Island Department of Transportation Standard Specifications for Road and Bridge Construction and Standard Details consists of the following:

- The Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition, with all revisions.
- The Rhode Island Standard Details, 1998 Edition, with all revisions.

3. BIDDING REQUIREMENTS AND SUBMISSION:

In addition to the **Total Bid Price**, the contractor must submit a list of qualified personnel and equipment in order to be eligible for contract award. The list shall include:

- ***Key Personnel and Equipment:*** Specifically identify key personnel to be assigned to the project. Assignment of key personnel to the project must be for the duration of the project. Provide a detailed resume for each such individual. In the event such personnel are not employees of the bidder, submit documentation of the relationship. Describe the individuals' responsibilities on previous projects and their proposed responsibility on this project. Demonstrate that the bidder has the capability, in terms of both types and quantities of personnel, facilities and equipment required, to accomplish the work in this contract including:
 - The Contractor must maintain a minimum year-round staff of **FIVE (5)** Rhode Island licensed electricians. Respondent shall provide proof of current licensing for staffing proposed.
 - The Contractor must identify the TMP Manager assigned and provide resume and required certification as identified in project specification.
 - The Contractor must own or have access to the following equipment in a

legally registered and operational state. Proof of said ownership or leasing agreement is required.

- **ONE (1)** Insulated Bucket Truck with a minimum 40-foot reach.

Sealed Proposals addressed to the State Purchasing Agent, Rhode Island Department of Administration, Division of Purchases, One Capitol Hill, Providence, Rhode Island 02903, will be opened and read in public on **September 5, 2014 at 11:00 AM**. All bidders MUST register online at www.purchasing.ri.gov. A completed, signed 4-PAGE Bidder Certification Cover Sheet MUST accompany each bid. Bid item description and quantities estimated for this project will also be available online. Should you need assistance in registering or downloading a bid, call the RIVIP Help Line at (401) 574-8100.

Additionally any pertinent questions subsequent to this solicitation may be Lisa Hill at lisa.hill@purchasing.ri.gov through August 29, 2014 at 4:30 p.m. (ET)

ADDITIONAL REQUIRED FORMS (All Forms Included in RFP Attachments)

Besides the *RIVIP Bidder Certification Cover Sheet* -as required at the State level and obtained through the RIVIP website, RIDOT also requires that the following **FIVE (5) FORMS** be completed and included in your submission package in line with federal regulations and departmental policy. These FORMS will be reviewed for completeness and at the point of award will be made part of contract document.

- **W-9 FORM:** Must be completed and signed by authorized agent of your Firm. *Form may be downloaded @ www.purchasing.ri.gov.*
- **CERTIFICATION FOR TITLE VI ASSURANCE:** Shall be fully-completed and submitted accordingly.
- **CERTIFICATION REGARDING DEBAREMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS – PRIMARY COVERED TRANSACTIONS:**
Shall be fully-completed and submitted accordingly.
- **CERTIFICATION REGARDING DEBAREMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS – LOWER TIER COVERED TRANSACTIONS:**
Shall be fully-completed and submitted accordingly.
- **ANTI-COLLUSION CERTIFICATE FOR CONTRACT AND FORCE ACCOUNT:** Shall be fully-completed and submitted accordingly.

Required Contract Provisions - The attention of prospective bidders is called to the fact that this project is to be bid upon and the contract executed under the rules and regulations for carrying out the provisions of the Federal-Aid Highway Act, subject to all appropriate Federal Laws, including Title VI of the Civil Rights Act of 1964, as amended and supplemented, and the required provisions for Federal - Aid Contracts, as provided for in Chapters 85, 86 and 88 of the Public Laws of Rhode Island, 1960.

Wages of labor on Federal -Aid Highway Projects - The prevailing rate of wages for laborers and mechanics employed by contractors or subcontractors on the initial

construction of highway projects on the Federal - Aid Highway System, authorized under the Federal Highway Act of 1968, shall be paid wages at rates not less than those prevailing on the same type of work on similar construction in the immediate locality as determined by the United States Secretary of Labor, in accordance with the Act of August 30, 1935, known as the Davis - Bacon Act, under Decision Nos. 1 through 6 as applicable.

Prevailing wage rates and Davis - Bacon Wage Determination Reference Materials are available online at www.purchasing.ri.gov. It is advisable to print only the pages applicable to this bid; the rates active on the RIVIP bid solicitation date for this project are applicable for the duration of the contract resulting from this bid.

Work Hours Act of 1962 - This contract is subject to Work Hours Act of 1962, Public Law 87-581 and implementing regulations.

Pre-Bid Conference - A Pre-Bid Conference will be held on **Thursday , August 21, 2014 at 11:00 AM** , to be held in the RIDOT Transportation Management Center, Room 140, Two Capitol Hill, for the purpose of reviewing construction problems and/or operations concerning the project. Individuals requesting interpreter services for the hearing impaired must notify 401-222-4971 (T.D.D.) a minimum of at least three (3) business days, seventy-two (72) hours prior to the conference date.

Contractor Submittals:

Shop Drawing Submittals: The Contractor must develop/submit shop drawings, product data and/or catalogue cut-sheets in accordance with Subsection 105.02; Plans and Shop Drawings of the Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition and the latest revisions for all items involved in this Contract.

Shop drawings shall consist of catalog/cut sheets specifying details indicating enough information so that the item can be evaluated in accordance with these specifications. The Contractor shall submit seven (7) sets of shop drawings to the Engineer. Shop drawings shall be accompanied by three (3) sets of design computations, cuts from manufacturer's catalogs, and/or supporting technical bulletins.

Shop drawings and design computations for this item shall be stamped only by a Rhode Island registered Professional Engineer.

Submitted shop drawings will be reviewed by the Engineer and returned to the Contractor for appropriate action. Shop drawings that are found erroneous, lacking information necessary to control construction, or not in conformance with accepted design criteria will be rejected and returned to the Contractor. The Contractor shall address the Engineer's comments and resubmit revised shop drawings and/or design computations.

The Contractor shall submit Shop Drawings for all job specific items within 60 days after Notice to Proceed.

Shop drawings must be approved by the Engineer prior to performance of the work involved. Such approval shall not relieve the Contractor of any responsibility under the

contract for the successful completion of the work. Contractor's failure to make submittals and obtain approval of a submittal will not be grounds for contract time extensions. The cost for preparation of shop drawings and design computations shall be borne by the Contractor and shall be included in the bid price for each related bid item.

Materials Storage

The Contractor shall place all stockpiled material in the Contractor's yard or at a site approved by the Engineer. In no case shall stockpiled material remain within the clear zone of any roadway during non-working hours.

4. LIST OF CONTRACT DRAWINGS:

<u>Sheet No.</u>	<u>Description</u>
1	Closed Circuit Television Equipment Details
2	Camera Pole Standard Foundation Details
3	Power Service Details
4	Typical PVMS Concrete Pad Installation Detail
5	Guardrail Approach Terminal Section Detail

5. UTILITY AND MUNICIPAL NOTIFICATION AND COORDINATION:

It will be the contractor's responsibility to coordinate with utility companies and locating all existing utilities within the requested construction work area.

Written notice shall be given by the Contractor to all public service corporations or municipal and State officials owning or having charge of publicly or privately owned utilities of his intention to commence operations affecting such utilities at least one week in advance of the commencement of such operations. The Contractor shall, at the same time, file a copy of such notice with the Engineer.

Before commencing work on service connections, the Contractor shall be responsible for contacting the Electric Company servicing the area to obtain construction requirements, standards, and to give adequate notice of commencement of work.

The Contractor shall make his own investigation to assure that no damage to existing structures, drainage lines, traffic signal conduits, fiber optic lines, and other utilities will occur as a result of his operations.

6. PROTECTION OF UTILITIES AND PROPERTY

The Contractor, in constructing or installing facilities alongside or near sewers, drains, water or gas pipes, electric or telephone conduits, fiber optic lines and conduits, poles, sidewalks, walls, vaults or other structures shall sustain them securely in place. The Contractor shall coordinate with the officers and agents of the various utility companies and municipal departments to assure that the services of these structures are maintained. The Contractor shall also be responsible for the repair or replacement, at no additional cost to the owner, of any damage to such structures caused by construction operations. The Contractor is responsible to leave them in the same condition as they existed prior to commencement of the work. In case of damage to utilities, the Contractor shall promptly notify the utility owner and shall, if requested by the Engineer, furnish labor and equipment to work temporarily under the utility owner's direction. Pipes or other structures damaged by the operation of the Contractor may be repaired by the Department or by the utility owner which suffers the loss. The cost of such repairs shall be borne by the Contractor, without compensation therefore.

If during construction there is an existing utility and/or structure found to be in conflict with the proposed work under this Contract, the Contractor shall protect and maintain the services to the utilities and structures. The Engineer will, as soon as possible, identify the utilities to be relocated or other such activities deemed suitable for resolution.

If live service connections are to be interrupted by excavations of any kind, the Contractor shall not break the service until new services are provided. Abandoned services shall be plugged off or otherwise made secure.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing all the work involved in protecting or repairing property as specified in this Section, shall be considered included in the contract bid price and no additional compensation will be allowed therefore.

7. OTHER COORDINATION CONTACTS:

The Contractor is to coordinate all work at all locations with the Contractors of the other concurrent construction projects occurring at or in the vicinity of the work as requested by the RIDOT.

8. DISPOSAL OF SURPLUS MATERIALS

All existing and other materials not required or needed for use on the project, and not required to be removed and stacked, shall become the property of the Contractor and shall be removed from the site during the construction period and legally disposed of. No separate payment will be made for this work, but all costs in connection therewith shall be included in each contract item bid price.

9. SEQUENCE OF CONSTRUCTION:

This is an On-Call Contract. The Contractor shall be available for meetings within a

48-hour timeframe and available to begin construction work requested within 14 days of said request. Within 14 days of said work request, the Contractor shall furnish the Engineer a construction schedule detailing the completion of the requested work. The schedule shall be mutually agreeable between the State and the Contractor.

10. ENVIRONMENTAL PERMITS:

No Environmental Permits or assents are required for this project.

11. WORK SCHEDULE

Work on this project is restricted to a normal eight-hour day, five-day week, with the Contractor and all Subcontractors working on the same shift.

No work shall be done on this Contract on Saturdays, Sundays or holidays or on the day before or the day after a long weekend which involves a holiday without prior approval by the Engineer.

No work that will disrupt travel on the existing roadways (lane closures, lane shifts, trenching, etc.) shall be done from 6:00 AM to 9:00 AM and from 3:00 PM to 7:00 PM.

Winter Shutdown

The "Winter Shutdown" as defined in Section 12.101.80 and as allowed for in section 12.108.07 of the *Rhode Island Standard Specifications for Road and Bridge Construction*, 2004 Edition and all changes and addenda, is hereby waived for this contract. "THERE SHALL BE NO WINTER SHUTDOWN FOR THIS PROJECT". However, time extensions may be granted for documented adverse winter weather conditions causing construction delays.

12. DAMAGE TO EXISTING UTILITIES:

The location and depth of existing utilities for all future installations are approximate and will be plotted from the best available information. The Contractor shall check and verify the locations of all existing utilities both underground and overhead. Any damage to existing utilities shall be the Contractor's responsibility. Costs of such damage shall be borne by the Contractor. No excavation shall be done until all involved utility companies are notified 48 hours in advance. The Contractor shall notify DIG-SAFE 48 hours in advance of any work adjacent to utilities at:

DIG-SAFE Call Center – Telephone 1-888-344-7233

13. WORK ADJACENT TO GAS LINES, WATER LINES AND TELEPHONE DUCTS:

Extreme care, particularly when installing foundations, conduit, handholes, and guardrail shall be exercised during construction in the vicinity of the gas lines, water

lines, telephone, fiber optic, and electric ducts. Complete coordination with the utility companies shall be maintained.

14. SPECIAL REQUIREMENTS FOR TRAFFIC MAINTENANCE AND PROTECTION:

In addition to the requirements of the Standard Specifications for Road and Bridge Construction and the Special Requirements of other sections of these contract documents, the Contractor must adhere to the following requirements:

The Contractor is advised that the signs and other traffic control devices shown on the plans are minimum requirements, and it is the Contractor's responsibility to supplement these if necessary to ensure the public's safety. All Maintenance and Protection of Traffic devices shall be in place and approved by the Engineer prior to starting construction. All Maintenance and Protection of Traffic shall conform to the latest edition and revisions of the Manual on Uniform Traffic Control Devices (MUTCD). The Contractor must submit for approval a traffic control plan when implementing any changes to the details within these specifications or when providing traffic control for situations differing from those shown indicated in these specifications, including subcontractor work.

Any deviations from the requirements stated here must be submitted to the Engineer in writing for approval.

The construction operations of this project must be coordinated with the local community public safety officials. It is the Contractor's responsibility to coordinate the construction operations of this project with the local public safety officials. In case of an emergency, the Contractor will be required to move equipment and allow the passage of emergency vehicles. The safety of the residents of the area must be considered at all times.

15. USE OF EXPLOSIVES:

Explosives shall not be used in the performance of the work of this contract.

16. MISCELLANEOUS MATERIALS AND SERVICES:

If materials are required for the completion of the work at a contracted site and those materials are not included as a bid item in the Contract, those materials will be supplied by the State from existing inventories, purchased by the State and supplied to the Contractor, or the Contractor may be directed to purchase materials directly. When directed by the TMC to purchase materials eligible for reimbursement, or to outsource services which are not provided by the Contractor under the bid items in the Contract, but necessary to complete the work, the Contractor shall employ the following as general purchasing practice:

All purchases by the Contractor shall be made in the most cost-effective manner possible. Equipment necessary to carry out work, including vehicles, shall not be

reimbursable unless specifically itemized within this bid document or specifically authorized in writing by the TMC.

Only materials and services with a purchase value of \$5000.00 or less are eligible for reimbursement under the Miscellaneous Materials and Services bid item. All items purchased shall require written confirmation of the price quotation to the TMC and approval of the quoted price by the TMC prior to purchase of the materials or services. For purchases exceeding \$500.00, but not to exceed \$5000.00, the Contractor shall provide written confirmation of at least three quotations, and the lowest quoted price shall be used. If no competition exists for the requested materials or services, the Contractor shall provide written justification for why the quoted vendor is the only source for the materials or services.

The Contractor will be required to submit copies of all purchases listing specific model numbers and quantities, services, shipping and handling costs. The Contractor will be reimbursed for approved materials/services purchased at total cost plus FIVE (5) PERCENT.

SPECIFICATIONS – JOB SPECIFIC INDEX

<u>ITEM CODE</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
901.9901	Guardrail Approach Terminal Section	JS-1
905.9901	PVMS Concrete Pad	JS-2
937.9901	Maintenance and Protection of Traffic – Type 1	JS-4
937.9902	Maintenance and Protection of Traffic – Type 2	JS-4
937.9903	Maintenance and Protection of Traffic – Type 3	JS-4
937.9904	Maintenance and Protection of Traffic – Type 4	JS-4
937.9905	Maintenance and Protection of Traffic – Type 5	JS-4
937.9906	Maintenance and Protection of Traffic – Type 6	JS-4
937.9907	Maintenance and Protection of Traffic – Type 7	JS-4
937.9908	Maintenance and Protection of Traffic – Type 8	JS-4
937.9909	Maintenance and Protection of Traffic – Type 9	JS-4
937.9910	Maintenance and Protection of Traffic – Type 10	JS-4
T03.9901	Ground Rod Array	JS-26
T03.9902	Lighting Dissipater	JS-27
T04.9901	Weatherproof Category 6 UTP – 4 Pair 23 AWG Cable	JS-28
T04.9902	16 AWG 3 Conductor Cable	JS-29
T05.9901	Break Into Existing Handhole	JS-30
T05.9902	Break Into Existing Manhole	JS-31
T05.9903	Dewatering	JS-32
T06.9901	Weather Head Installation on Existing Pole	JS-33
T06.9902	Dual 1¼ Inch High Density Polyethylene Duct – Under Existing Pavement	JS-34
T06.9903	Single 1¼ Inch High Density Polyethylene Duct – Under Existing Pavement	JS-34
T06.9904	Dual 1¼ Inch High Density Polyethylene Duct - Underground	JS-34
T06.9905	Single 1¼ High Density Polyethylene Duct - Underground	JS-34
T06.9906	Dual 2 Inch High Density Polyethylene Duct – Underground	JS-34
T06.9907	Single 2 Inch High Density Polyethylene Duct – Underground	JS-34
T06.9908	Dual 3 Inch High Density Polyethylene Duct - Underground	JS-34
T06.9909	Single 3 Inch High Density Polyethylene Duct - Underground	JS-34
T11.9901	Service Pole Standard, Wood 40 Foot	JS-38
T11.9902	Service Pole Standard, Wood 45 Foot	JS-38
T11.9903	Install Existing 80 Foot Camera Pole on New Foundation	JS-39
T11.9904	40 Foot Galvanized Steel Camera Pole with Lowering Device and Foundation	JS-42
T11.9905	50 Foot Galvanized Steel Camera Pole with Lowering Device and Foundation	JS-42
T11.9906	60 Foot Galvanized Steel Camera Pole with Lowering Device and Foundation	JS-42

T11.9907	80 Foot Galvanized Steel Camera Pole with Lowering Device and Foundation	JS-42
T11.9908	Portable Lowering Tool	JS-50
T11.9909	Mast Arm 4 Foot	JS-51
T11.9910	Mast Arm 6 Foot	JS-51
T11.9911	Mast Arm 8 Foot	JS-51
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T12.9901	Meter Pedestal	JS-52
T12.9902	Disconnect Switch	JS-54
T12.9903	Transformer	JS-56
T12.9904	Ground Mounted Camera Control Cabinet and Foundation	JS-57
T12.9905	Pole Mounted Camera Control Cabinet	JS-57
T12.9906	Break into Existing Cabinet	JS-61
T12.9907	Ground Mounted P Size Replacement Cabinet	JS-62
T12.9908	Ground Mounted M Size Replacement Cabinet	JS-62
T12.9909	Pole Mounted M Size Replacement Cabinet	JS-62

JOB SPECIFIC

901.9901

GUARDRAIL APPROACH TERMINAL SECTION

DESCRIPTION: This work shall consist of the furnishing and installation of guardrail approach terminal sections at the locations designated on the plans or as directed by the Engineer.

MATERIALS: The approach terminal section shall be the SRT-350 guardrail end terminal as manufactured by Trinity Industries, Inc., or an approved equal meeting TL-3 criteria. The Contractor shall furnish the Engineer with substantial evidence indicating that the terminal section supplied meets TL-3 criteria.

CONSTRUCTION METHODS: The guard rail approach terminal shall be installed as per the manufacturer's recommendations. The Contractor shall furnish a manufacturer's installation manual to the Engineer prior to installing the unit.

METHOD OF MEASUREMENT: "GUARDRAIL APPROACH TERMINAL SECTION" shall be measured by "EACH" unit installed and completed in accordance with the plans and/or as directed by the Engineer.

BASIS OF PAYMENT: The accepted quantity of "GUARDRAIL APPROACH TERMINAL SECTION" will be paid for at the contract unit bid price per "EACH" as listed in the Proposal. The payment constitutes full compensation for all labor, equipment, tools, accessories, including hardware, and incidentals necessary to complete the work in accordance with this Special Provision, completed and accepted by the Engineer.

JOB SPECIFIC

905.9901
PVMS CONCRETE PAD

DESCRIPTION: This work under this item specifies the requirements for constructing a typical concrete pad for a portable variable message sign at locations to be determined.

MATERIALS: The Contractor shall furnish and install the PVMS Concrete Pad in accordance with the typical plan detail that meets the following requirements:

1. The Contractor shall install up to two (2) cubic yards of Portland cement concrete to form a 10 foot wide by 15 foot long PVMS Concrete Pad per site in accordance with Section 905 Sidewalks and Driveways and RI Std. Detail 43.1.0 Cement Concrete Sidewalk.
2. The Contractor shall excavate up to five (5) cubic yards of material per site to prepare the area for the PVMS Concrete Pad in accordance with Section 202 Excavation and Embankment.
3. The Contractor shall provide up to thirty (30) square yards of trimming and fine grading per site in accordance with Section 204 Trimming and Fine Grading.
4. The Contractor shall provide up to fifty (50) linear feet of baled hay erosion controls per site in accordance with Section 206 Perimeter Erosion Controls and in accordance with RI Ste. Detail 9.1.0 Baled Hay Erosion Check.
5. The Contractor shall provide up to fifty (50) feet of Removal of Baled Hay Erosion Checks per site in accordance with Section 206 Perimeter Erosion Controls.
6. The Contractor shall provide up to five (5) cubic yards of gravel borrow per site in accordance with Section 302 Gravel Borrow Subbase Course.
7. The Contractor shall provide up to fifteen (15) square yards of plantable soil – 4 inches deep per site in accordance with Section L.01 Loam, Plantable Soil or High Organic Soil.
8. The Contractor shall provide up to fifteen (15) square yards of General Highway Seeding per site in accordance with Section L.02 Seeding.
9. The Contractor shall install tie-downs and galvanized steel chain of the size and lengths indicated on the plan details.

No guardrail is included in this item. Guardrail items will be paid for separately under appropriate work items.

METHOD OF MEASUREMENT: “PVMS CONCRETE PAD” will be measured for payment by the unit “EACH” for each unit installed and accepted by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per “EACH” for “PVMS CONCRETE PAD” complete in place and accepted. The price shall include full compensation for all work and materials, including cement concrete, excavation, gravel borrow, trimming and fine grading, erosion controls and removal of erosion controls, disposal of excess materials, plantable soil and seeding, tools, labor, and work thereto.

JOB SPECIFIC

- 937.9901
MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 1
- 937.9902
MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 2
- 937.9903
MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 3
- 937.9904
MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 4
- 937.9905
MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 5
- 937.9906
MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 6
- 937.9907
MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 7
- 937.9908
MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 8
- 937.9909
MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 9
- 937.9910
MAINTENANCE AND PROTECTION OF TRAFFIC - TYPE 10

DESCRIPTION: This work shall consist of the furnishing Maintenance and Protection of Traffic Devices and personnel for work performed by the Contractor at various locations as directed by the Engineer. This work shall include all devices including but not limited to traffic cones, construction signs, barrels, flaggers, flashing arrow panels and truck mounted attenuators. This work shall also include the all personnel and equipment for the set-up and removal of said devices at the locations and time periods approved by the Engineer.

MATERIALS: All maintenance and protection of traffic devices and plans shall be those meeting the criteria of the Manual on Uniform Traffic Control Devices for Streets and Highways, 2003 Edition, the Rhode Island Department of Transportation Standard Specifications for Road and Bridge Construction, 2004 Edition and the Rhode Island Department of Transportation Standard Details, 1998 Edition with all revisions.

CONSTRUCTION METHODS: At all work sites where maintenance and protection of traffic is required to maintain a safe work zone, the Contractor shall establish temporary traffic control zones by applying the principles and standards for maintenance and protection of traffic defined in the Manual on Uniform Traffic Control Devices for Streets and Highways, 2003 Edition (MUTCD). Refer to Chapter 6H of the MUTCD for Tables 6H-2 and 6H-3, referred to in the figures below.

The TMC will schedule and pay for police details for all temporary traffic control zones. The Contractor shall notify the TMC at least one week in advance of all work to be

performed requiring Maintenance and Protection of Traffic, to allow sufficient time to schedule the detail.

The following maintenance and protection of traffic plans shall apply, based upon the Typical Applications identified in Chapter 6H of the MUTCD, as modified herein:

1. Maintenance and Protection of Traffic – Type 1
 - Work Beyond the Shoulder – Typical Application 1 (TA-1) as defined in the Manual of Uniform Traffic Control Devices for Streets and Highways, 2003 Edition with all revisions.

Notes for Figure 6H-1 – Typical Application 1
Work Beyond the Shoulder

Guidance:

1. If the work space is in the median of a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

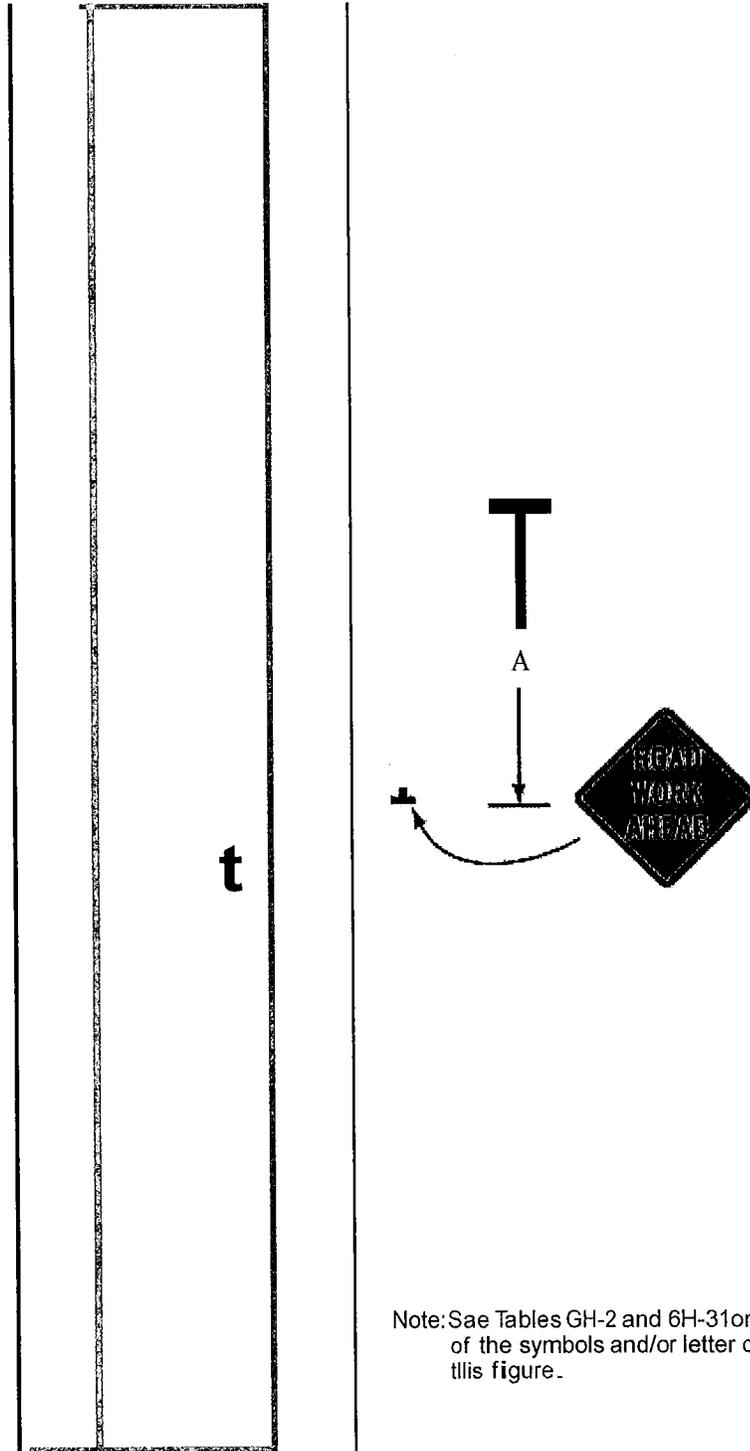
Option:

2. The ROAD WORK AHEAD sign may be replaced with other appropriate signs such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.
3. The ROAD WORK AHEAD sign may be omitted where the work space is behind a barrier, more than 600 mm (24 in) behind the curb, or 4.6 m (15 ft) or more from the edge of any roadway.
4. For short-term or short-duration operations, all signs and channelizing devices may be eliminated if a vehicle with activated rotating lights or strobe lights is used.
5. Vehicle hazard warning signals may be used to supplement rotating lights or strobe lights.

Standard:

6. Vehicle hazard warning signals shall not be used instead of the vehicle's rotating lights or strobe lights.

Figure 6H-1. Work Beyond the Shoulder (TA-1)



Note: See Tables 6H-2 and 6H-31 for the meaning of the symbols and/or letter codes used in this figure.

Typical Application 1

2. Maintenance and Protection of Traffic – Type 2
 - Work on Shoulders – Typical Application 3 (TA-3) as defined in the Manual of Uniform Traffic Control Devices for Streets and Highways, 2003 Edition with all revisions.

Notes for Figure 6H-3– Typical Application 3
Work on Shoulders

Guidance:

1. A SHOULDER WORK sign should be placed on the left side of the roadway for a divided or one-way street only if the left shoulder is affected.

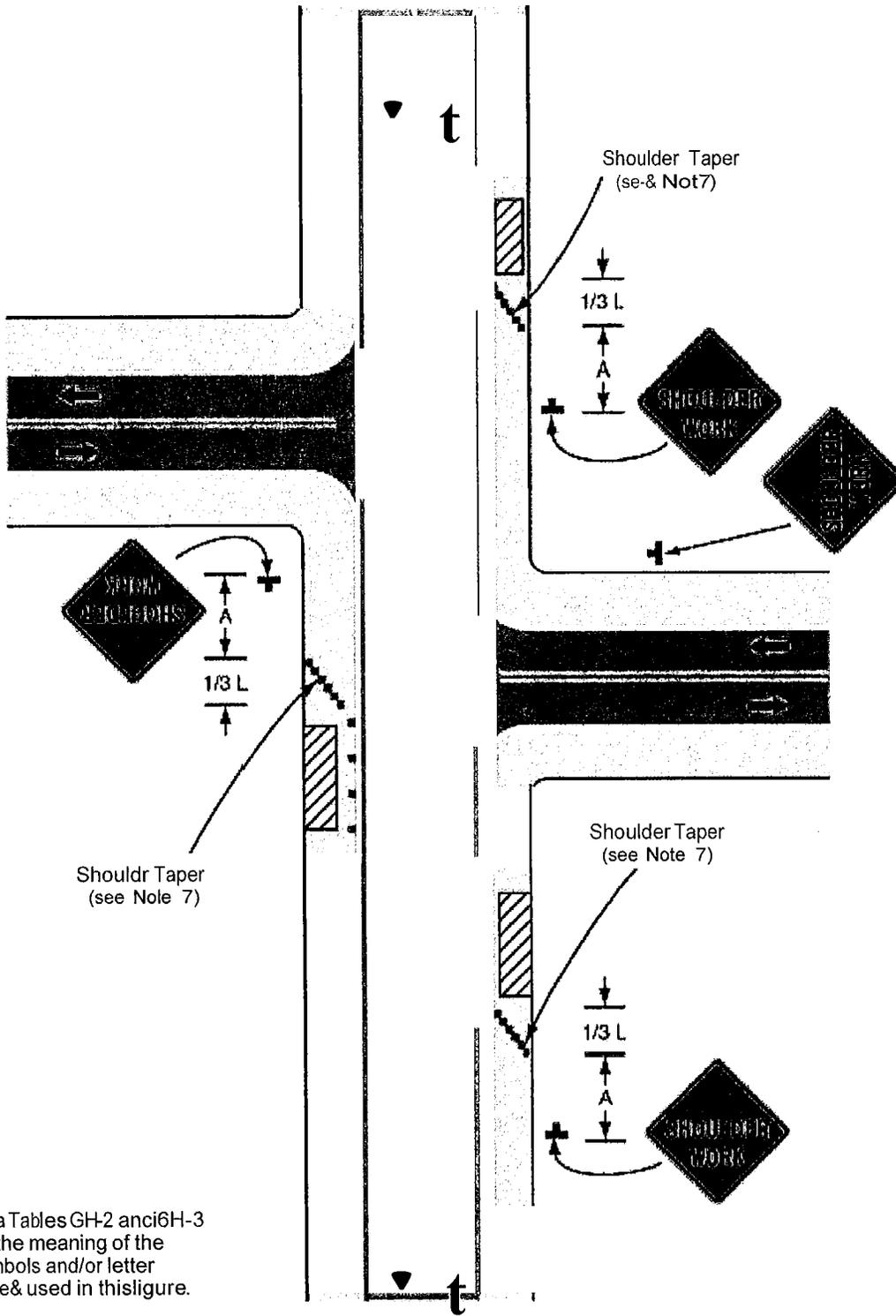
Option:

2. The Workers symbol signs may be used instead of SHOULDER WORK signs.
3. The SHOULDER WORK AHEAD sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.
4. For short-duration operations lasting up to 1 hour where paved shoulders having a width of less than 2.4 m (8 ft) are closed, all signs and channelizing devices may be eliminated if a vehicle with activated rotating lights or strobe lights is used.
5. Vehicle hazard warning signals may be used to supplement rotating lights or strobe lights.

Standard:

6. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.
7. When paved shoulders having a width of 2.4 m (8 ft) or more are closed, at least one advance warning sign shall be used. In addition, channelizing devices shall be used to close the shoulder in advance to delineate the beginning of the work space and direct vehicular traffic to remain within the traveled way.

Figure 6H-3. Work on Shoulders (TA-3)



Nota: See Tables GH-2 and 6H-3 for the meaning of the symbols and/or letter code used in this figure.

Typical Application 3

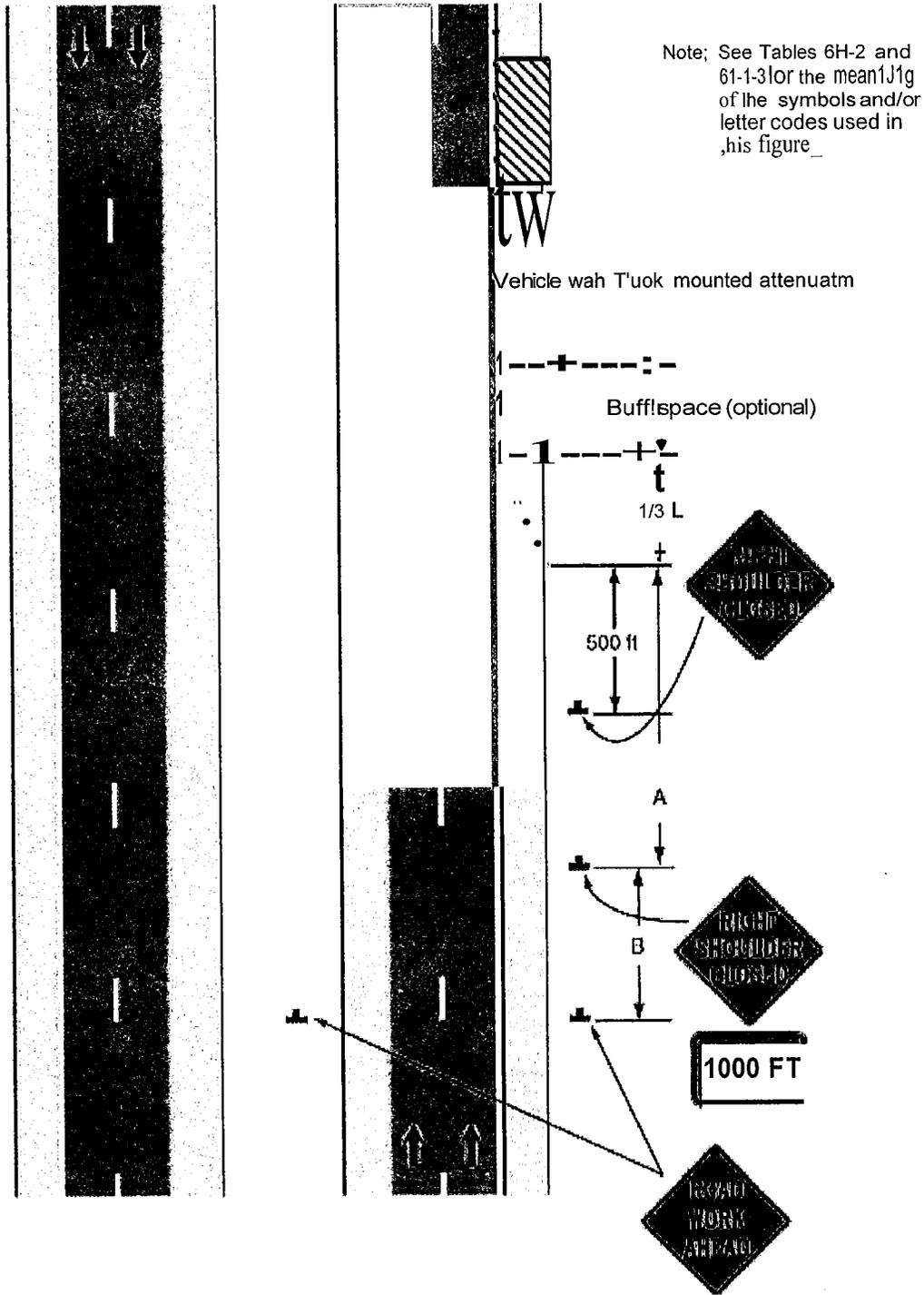
3. Maintenance and Protection of Traffic – Type 3
 - Shoulder Closure on Freeway – Typical Application 5 (TA-5) as defined in the Manual of Uniform Traffic Control Devices for Streets and Highways, 2003 Edition with all revisions.

Notes for Figure 6H-5 – Typical Application 5
Shoulder Closure on Freeway

Guidance:

1. SHOULDER CLOSED signs should be used on limited-access highways where there is no opportunity for disabled vehicles to pull off the roadway.
2. If drivers cannot see a pull-off area beyond the closed shoulder, information regarding the length of the shoulder closure should be provided in meters or kilometers (feet or miles), as appropriate.
3. Additional temporary traffic control signs at an appropriate spacing should be installed on all on-ramps that intersect the advance warning area.
4. For short-duration work, the ROAD WORK AHEAD sign on the left side of the freeway may be omitted if high-intensity rotating, flashing, oscillating, or strobe lights are used on work vehicles.

Figure 6H-5. Shoulder Closure on Freeway (TA-5)



Typical Application 5

4. Maintenance and Protection of Traffic – Type 4
 - Shoulder Work with Minor Encroachment – Typical Application 6 (TA-6) as defined in the Manual of Uniform Traffic Control Devices for Streets and Highways, 2003 Edition with all revisions.

Notes for Figure 6H-6– Typical Application 6
Shoulder Work with Minor Encroachment

Guidance:

1. All lanes should be a minimum of 3 m (10 ft) in width as measured to the near face of the channelizing devices.
2. A work vehicle parked in the work space should display activated high-intensity rotating, flashing, oscillating, or strobe lights.

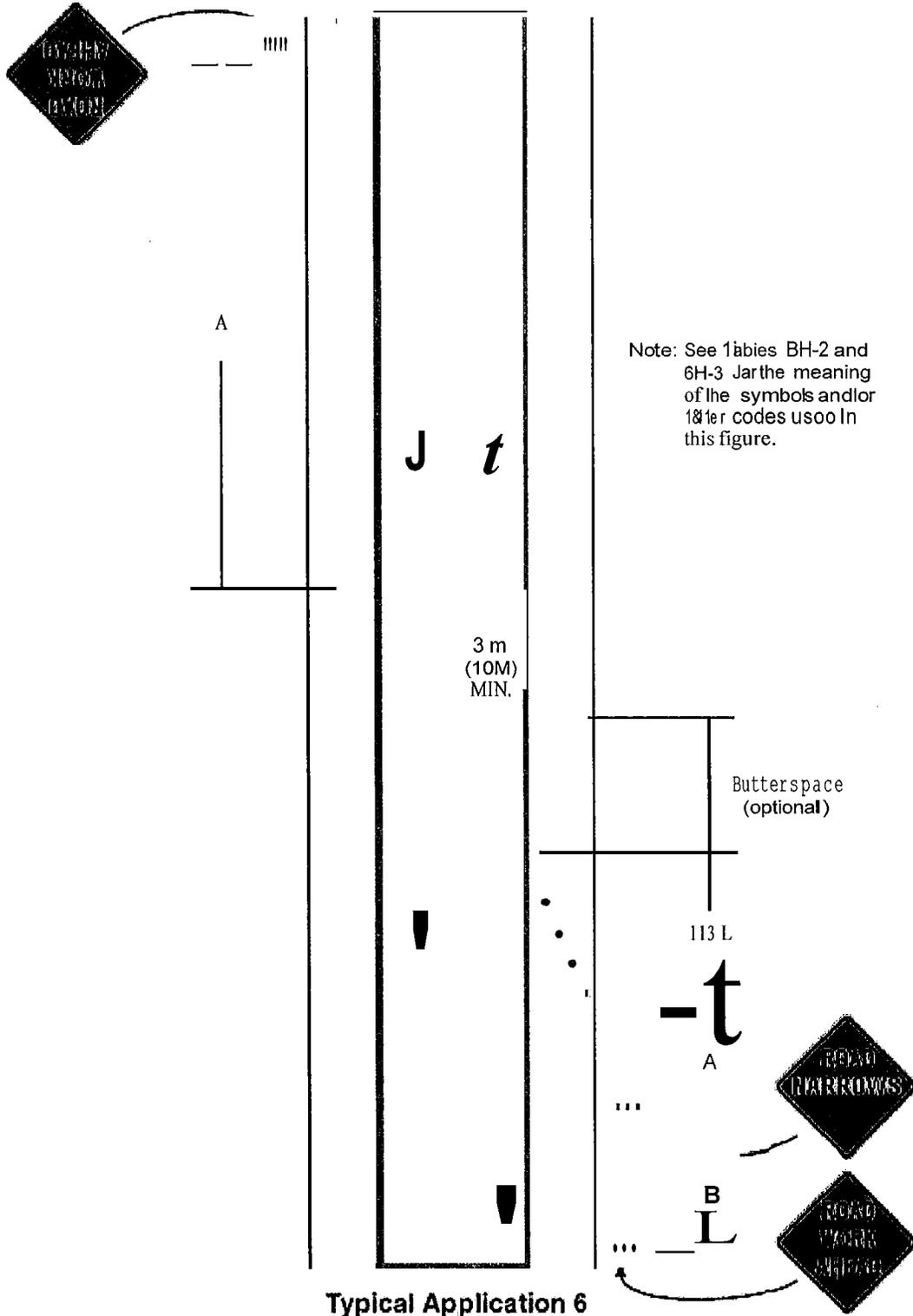
Option:

3. Where the opposite shoulder is suitable for carrying vehicular traffic and of adequate width, lanes may be shifted by use of closely spaced channelizing devices, provided that the minimum lane width of 3 m (10 ft) is maintained and all appropriate warning signs are installed.
4. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.

Standard:

5. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

Figure 6H-6. Shoulder Work with Minor Encroachment (TA-6)



5. Maintenance and Protection of Traffic – Type 5
- Lane Closure on Multilane Non-Access Controlled Highway – Typical Application 33a (TA-33a) as defined in the Manual of Uniform Traffic Control Devices for Streets and Highways, 2003 Edition with all revisions.

Notes for Figure 6H-33a – Typical Application 33a
Lane Closure on Multilane Non-Access Controlled Highway

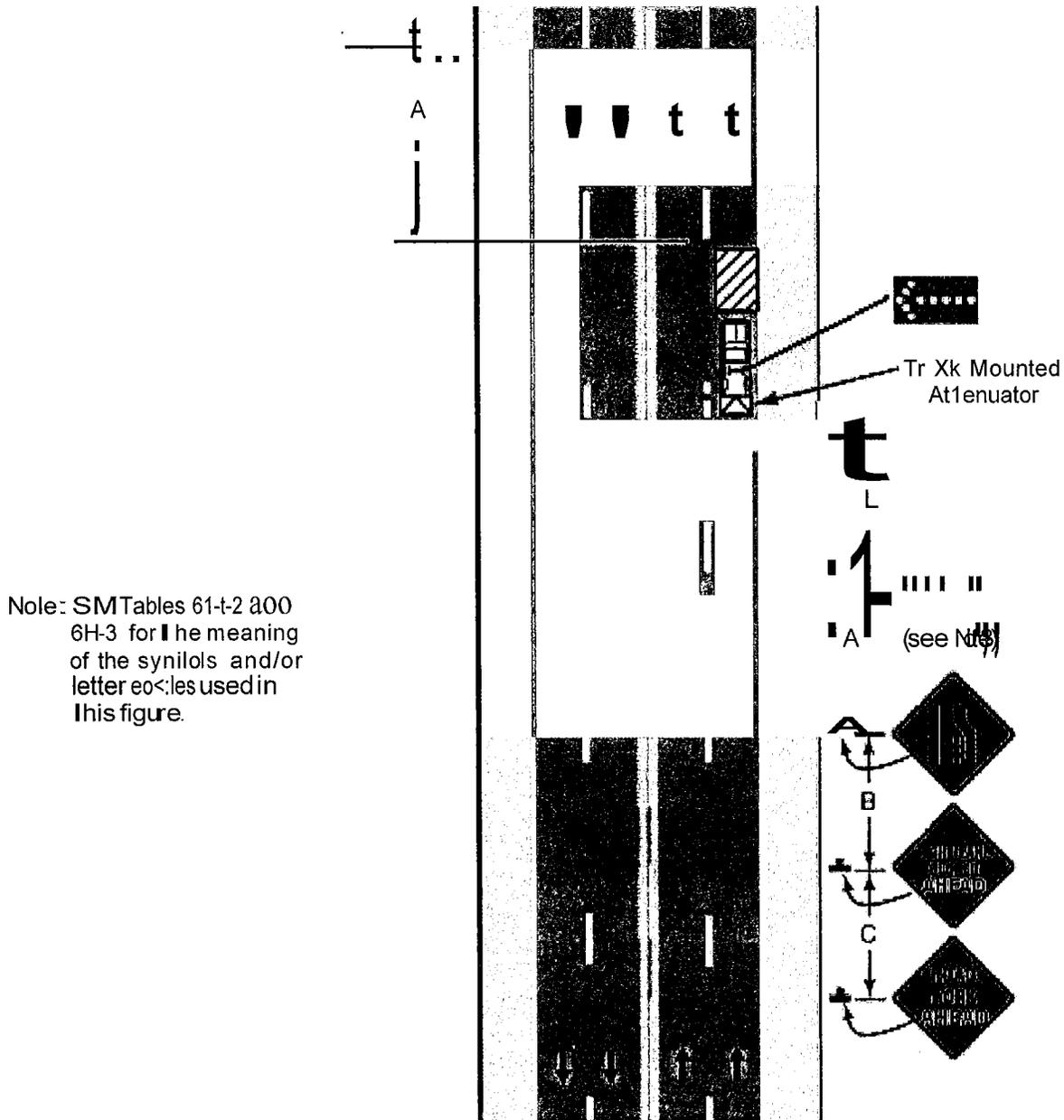
Standard:

1. When a side road intersects the highway within the temporary traffic control zone, additional temporary traffic control devices shall be placed as needed.
2. Access to and egress from all side roads and driveways shall be maintained during the temporary traffic control set up.

Guidance:

3. Channelizing devices should be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.
4. Channelizing device layout and spacing should be adjusted as necessary to provide clear delineation and channelization for all side roads.

Figure 6H-33a. Lane Closure on Multi-Lane Non-Access Controlled Highway (TA33a)



Typical Application 33a

6. Maintenance and Protection of Traffic – Type 6
 - Lane Closure on Freeway – Typical Application 33b (TA-33b) as defined in the Manual of Uniform Traffic Control Devices for Streets and Highways, 2003 Edition with all revisions.

Notes for Figure 6H-33b – Typical Application 33b
Lane Closure on Freeway

Standard:

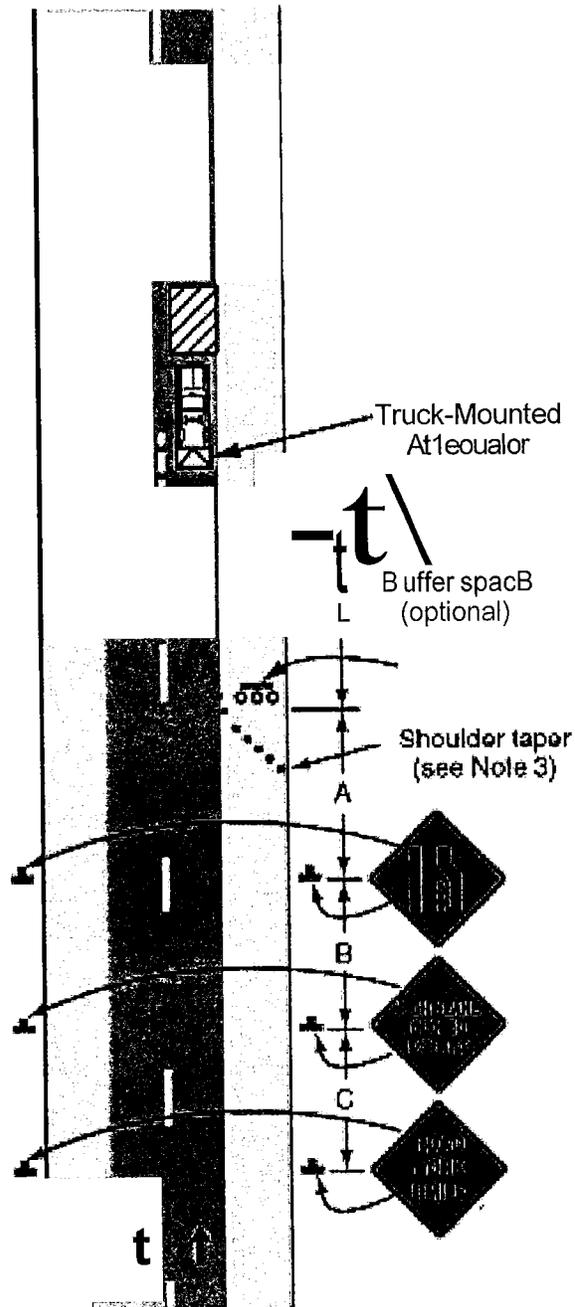
1. This information also shall be used when work is being performed in the lane adjacent to the median on a divided highway. In this case, the LEFT LANE CLOSED signs and the corresponding Lane Ends signs shall be substituted.
2. When a side road or ramp intersects the highway within the temporary traffic control zone, additional temporary traffic control devices shall be placed as needed.

Guidance:

3. When paved shoulders having a width of 2.4 m (8 ft) or more are closed, channelizing devices should be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.

Figure 6H-33b . Lane Closure on Freeway (TA33b)

Note: See Tables 6H-2 and 6H-3 for the meaning of the symbols and/or letter C's used in this figure.



Typical Application 33b

7. Maintenance and Protection of Traffic – Type 7
- Work on Far Side of Intersection – Typical Application 22 (TA-22) as defined in the Manual of Uniform Traffic Control Devices for Streets and Highways, 2003 Edition with all revisions.

Notes for Figure 6H-22 – Typical Application 22
Work on Far Side of Intersection

Guidance:

1. The work space should not extend across any crosswalks.
2. Activated high-intensity rotating, flashing, oscillating, or strobe lights should be used on work vehicles in the work space.

Option:

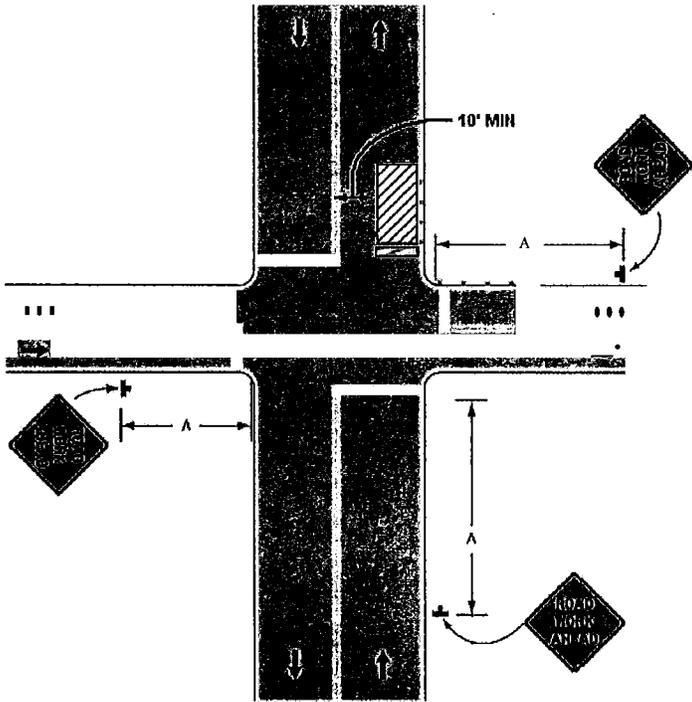
3. For work on a roadway with one thru lane in each direction, where the opposite shoulder is suitable for carrying vehicular traffic and of adequate width, lanes may be shifted by use of closely spaced channelizing devices, provided that the minimum lane width of 3 m (10 ft) is maintained and all appropriate warning signs are installed.
4. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.

Standard:

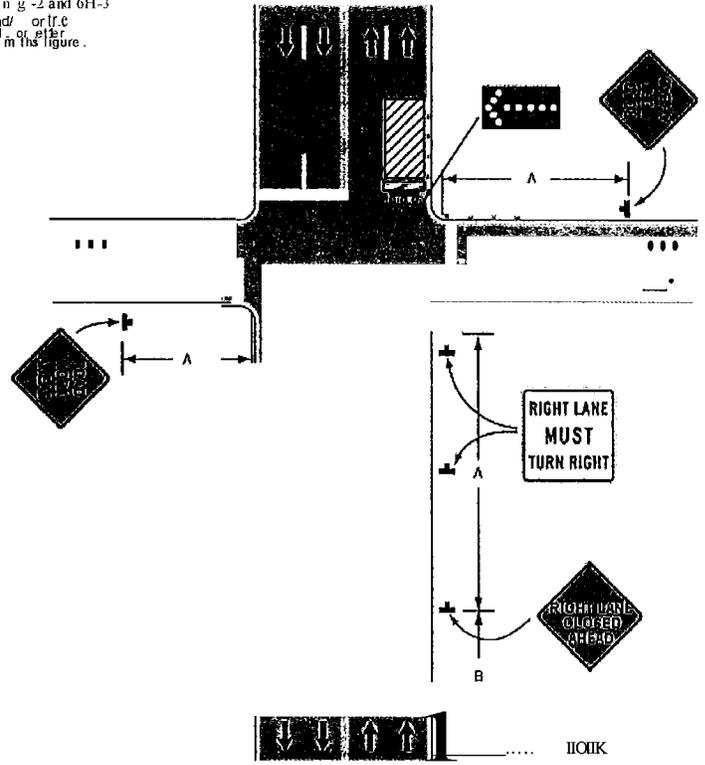
5. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

Figure 6H-22. Work on Far Side of Intersection (TA-22)

Note: See Table 6H-1 for symbols and codes used in this figure.



Work on Roadway with One Thru Lane in Each Direction



Work on Roadway with Two Thru Lanes in Each Direction

Typical Application 22

8. Maintenance and Protection of Traffic – Type 8
- Work in Center of Intersection – Typical Application 26 (TA-26) as defined in the Manual of Uniform Traffic Control Devices for Streets and Highways, 2003 Edition with all revisions.

Notes for Figure 6H-26 – Typical Application 26
Work in Center of Intersection

Guidance:

1. All lanes should be a minimum of 3 m (10 ft) in width as measured to the near face of the channelizing devices.
2. The work space should not extend across any crosswalks.
3. Activated high-intensity rotating, flashing, oscillating, or strobe lights should be used on the work vehicle.

Option:

4. For short-duration work operations, the barricades may be eliminated if a vehicle displaying high-intensity rotating, flashing, oscillating, or strobe lights is positioned in the work space.
5. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.

Standard:

6. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

9. Maintenance and Protection of Traffic – Type 9
- Lane Closure on Near Side of Intersection – Typical Application 21 (TA-21) as defined in the Manual of Uniform Traffic Control Devices for Streets and Highways, 2003 Edition with all revisions.

Notes for Figure 6H-21 – Typical Application 21
Lane Closure on Near Side of Intersection

Guidance:

1. The work space should not extend across any crosswalks.
2. Activated high-intensity rotating, flashing, oscillating, or strobe lights should be used on the work vehicle.

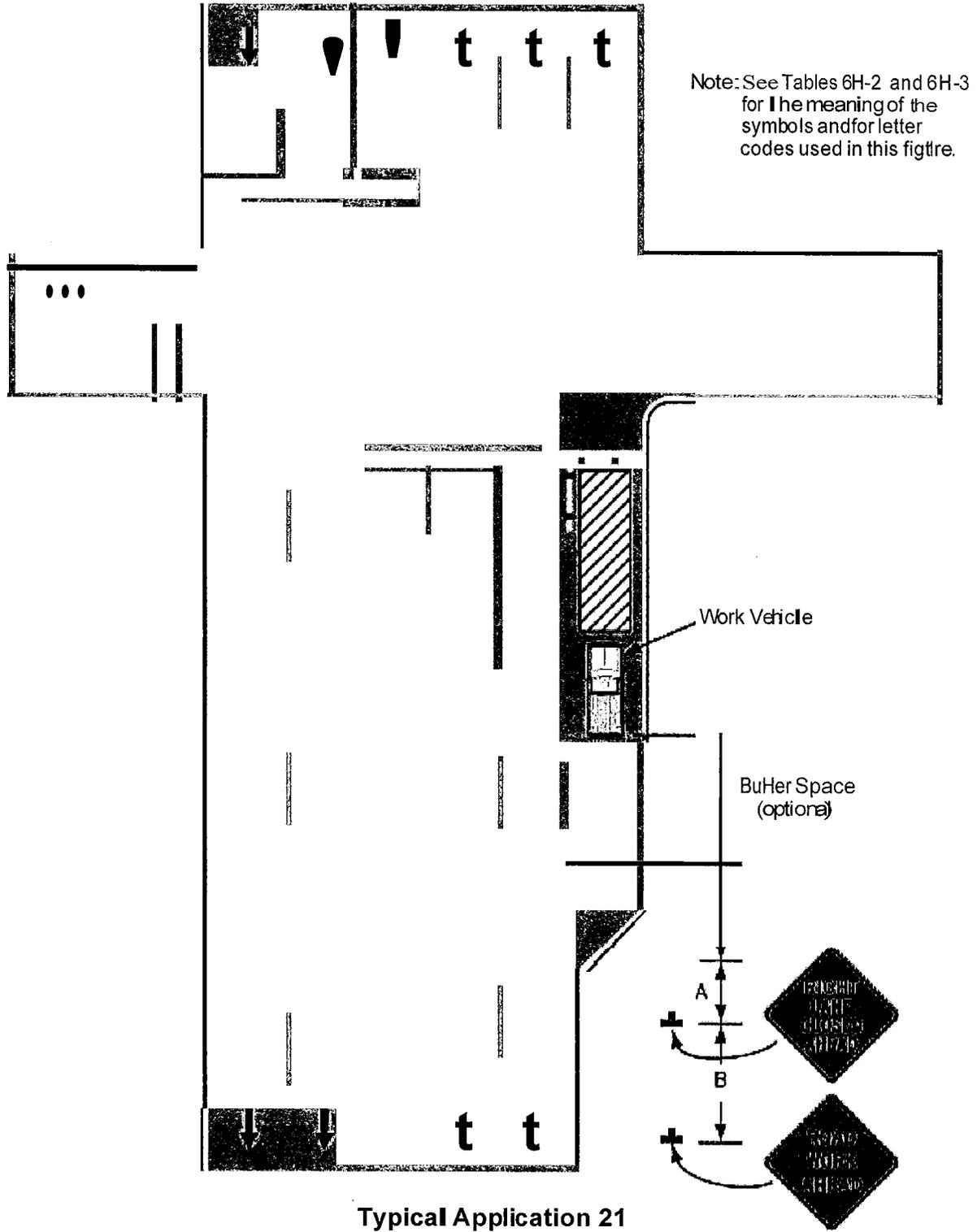
Option:

3. Vehicle hazard warning signals may be used to supplement high-intensity rotating, flashing, oscillating, or strobe lights.

Standard:

4. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

Figure 6H-21. Lane Closure on Near Side of Intersection (TA-21)



10. Maintenance and Protection of Traffic – Type 10

- Work in Vicinity of Entrance Ramp – Typical Application 44 (TA-44) as defined in the Manual of Uniform Traffic Control Devices for Streets and Highways, 2003 Edition with all revisions.

Notes for Figure 6H-44 – Typical Application 44
Work in Vicinity of Entrance Ramp

Standard:

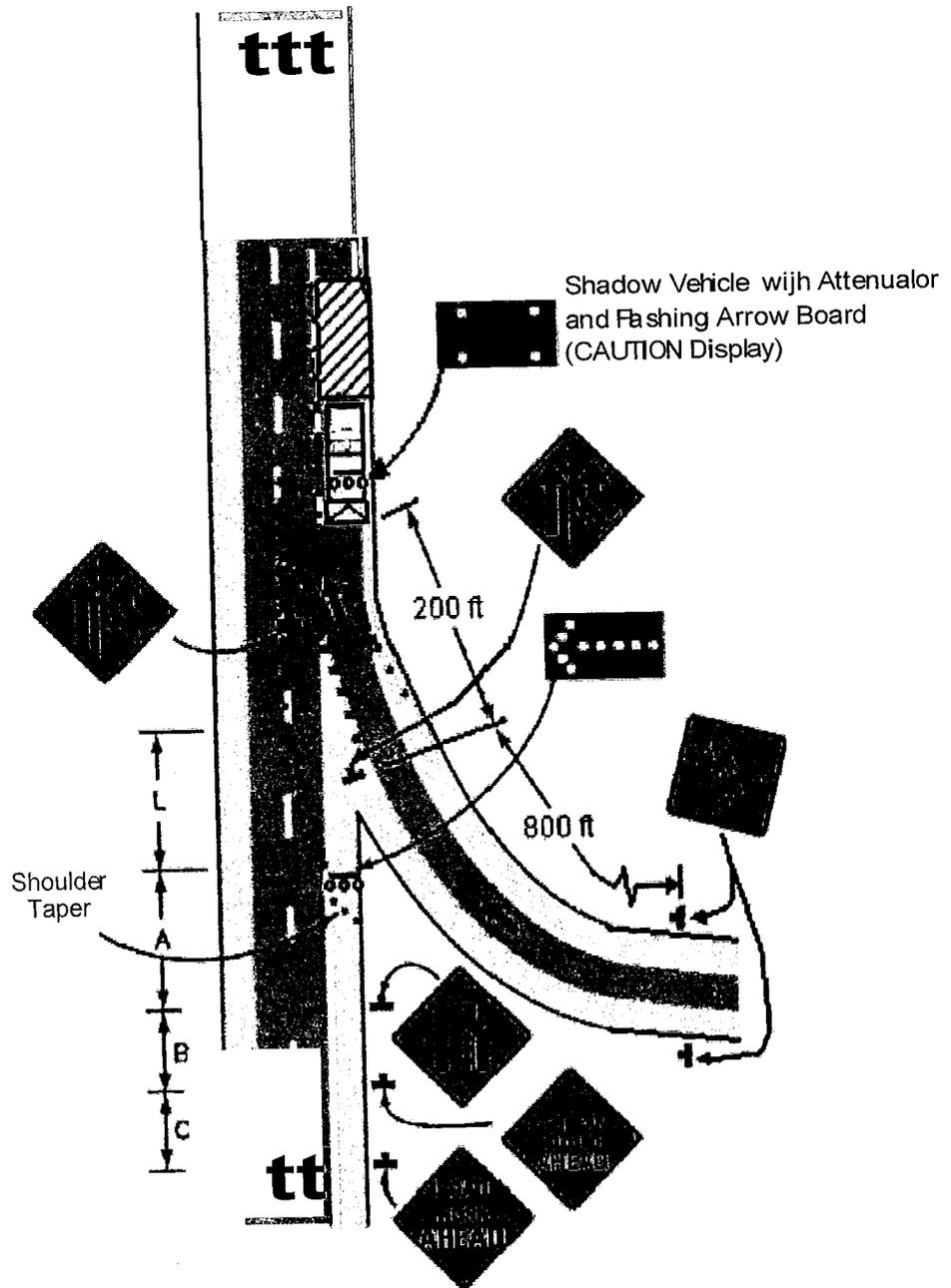
1. All existing YIELD and MERGE signs (not shown in Figure) shall be covered as part of this set-up.

Guidance:

2. The mainline merging taper with the arrow panel at its starting point should be located sufficiently in advance so that the arrow panel is not confusing to drivers on the entrance ramp.

Figure 6H-44. Work in Vicinity of Entrance Ramp (TA-44)

Note: See Tables 6H-2 and 6H-3 for the meaning of the symbols and/or letter codes used in this figure



Typical Application 44

METHOD OF MEASUREMENT: “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 1”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 2”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 3”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 4”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 5”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 6”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 7”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 8”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 9”, and “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 10” shall be measured by “EACH” unit as directed by the Engineer.

BASIS OF PAYMENT: The accepted quantity of “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 1”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 2”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 3”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 4”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 5”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 6”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 7”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 8”, “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 9”, and “MAINTENANCE AND PROTECTION OF TRAFFIC – TYPE 10” will be paid for at the contract unit bid price per “EACH”. The payment constitutes full compensation for all labor, equipment, tools, signs, cones, barrels, flashing arrow boards, truck mounted attenuators, personnel, accessories, including hardware, and incidentals necessary to complete the work in accordance with this Special Provision, completed and accepted by the Engineer.

JOB SPECIFIC

T03.9901

GROUND ROD ARRAY

DESCRIPTION: This item specifies the requirements for the Ground Rod Array.

MATERIALS: The Contractor shall supply and install a ground array system to be installed at the base of the camera pole as shown on the Plans. The ground array system shall be connected to the pole through an appropriate ground clamp. A #4 AWG copper wire shall be installed between the camera pole and the control cabinet providing a common ground system for each terminus. A flexible conduit through the foundation to the inside of the pole shall provide the means to connect the ground wire from the inside of the pole to the ground rods. No ground wires mounted externally to the camera pole will be permitted. All connections between the ground rod array and the camera pole shall be terminated with a Cadweld.

The Contractor shall develop and submit shop drawings in accordance with Subsection 105.02; Plans and Shop Drawings of the Rhode Island Standard Specifications for Road and Bridge Construction Design, 2004 Edition including all revisions.

METHOD OF MEASUREMENT: "GROUND ROD ARRAY" will be measured for payment by the unit "EACH" for each unit installed, tested and accepted by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per "GROUND ROD ARRAY", complete in place. The price shall include full compensation for all materials including the ground rods, flexible conduit, ground clamps, copper wire, testing, labor, and work thereto.

JOB SPECIFIC

T03.9902

LIGHTNING DISSIPATER

DESCRIPTION: This item specifies the requirements for the Lightning Dissipater.

MATERIALS: : The Contractor shall supply and install a Lightning Master Corporation Model #CA-72-CAM system or approved equivalent as shown on the plans. The system shall include a dissipation array installed at the top of the pole and connection from the pole to the ground rod array system as recommended by the lightning dissipater manufacturer.

The Contractor shall develop and submit shop drawings in accordance with Subsection 105.02; Plans and Shop Drawings of the Rhode Island Standard Specifications for Road and Bridge Construction Design, 2004 Edition including all revisions.

METHOD OF MEASUREMENT: "LIGHTNING DISSIPATER" will be measured for payment by the unit "EACH" for each unit installed, tested and accepted by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per "LIGHTNING DISSIPATER", complete in place. The price shall include full compensation for all materials including the lightning dissipater, mounting support bracket, testing, labor, and work thereto.

JOB SPECIFIC

T04.9901

WEATHERPROOF CATEGORY 6 UTP – 4 PAIR 23 AWG CABLE

DESCRIPTION: This item specifies the requirements for the Weatherproof Category 6 UTP – 4 Pair 23 AWG Cable.

MATERIALS: The Contractor shall furnish and install Weatherproof Category 6 UTP – 4 Pair 23 AWG Cable as shown on the Plans and approved by the Engineer. Contractor shall provide male and female RJ-45 connectors as required.

The Contractor shall develop and submit shop drawings in accordance with Subsection 105.02; Plans and Shop Drawings of the Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition, including all revisions.

METHOD OF MEASUREMENT: “WEATHERPROOF CATEGORY 6 UTP – 4 PAIR 23 AWG CABLE” shall be measured for payment by the unit “LINEAR FOOT” for the amount of linear feet actually installed complete in place and accepted.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per “LINEAR FOOT” for “WEATHERPROOF CATEGORY 6 UTP – 4 PAIR 23 AWG CABLE”, complete in place and accepted by the Engineer. The price shall include full compensation for all materials, equipment, tools, labor, and work thereto.

JOB SPECIFIC

T04.9902

16 AWG 3 CONDUCTOR CABLE

DESCRIPTION: This item specifies the requirements for a 16 AWG 3 Conductor Cable. The cable shall be continuous from the camera lowering device to the control Cabinet. No splicing is allowed.

MATERIALS: The Contractor shall furnish and install a 16 AWG 3 Conductor cable as shown on the plans and approved by the Engineer. The materials shall conform to the applicable requirements of Section T.04 "Wire and Cable", Rhode Island Standard Specification for Road and Bridge Construction, 2004 Edition.

The Contractor shall develop and submit shop drawings in accordance with Subsection 105.02; Plans and Shop Drawings of the Rhode Island Standard Specifications for Road and Bridge Construction Design, 2004 Edition, including all revisions.

METHOD OF MEASUREMENT: "16 AWG 3 CONDUCTOR CABLE" will be measured for payment by the unit "LINEAR FOOT" for the amount of linear feet actually installed and accepted by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per "LINEAR FOOT" for "16 AWG 3 CONDUCTOR CABLE" complete in place and accepted by the Engineer. The price shall include full compensation for all materials, equipment, tools, labor, and work thereto.

JOB SPECIFIC

T05.9901

BREAK INTO EXISTING HANDHOLE

DESCRIPTION: Work under this item shall consist of breaking into existing handholes at locations specified on the plans or as directed by the Engineer for conduit installation.

MATERIALS: The materials for this work shall conform to the relevant provisions of the "Rhode Island Standard Specifications for Road and Bridge Construction", 2004 Edition including all revisions.

CONSTRUCTION METHODS: At locations where new conduit is being installed into an existing handhole or existing conduit is being replaced with a larger size conduit, the Contractor shall drill a hole into the handhole of adequate size to easily insert the conduit, insert the new or larger conduit and grout the handhole around the new conduit. The construction methods for this item shall be done in accordance with R.I. Standard 18.2.0 including field drilling, grouting, grounding and bushings. The Contractor shall minimize damage to the existing handhole, and shall be responsible for repairing any damage that occurs as a result of the work being performed under this item of work. Repair and restoration of the handhole shall be done to the satisfaction of the Engineer at no additional cost to the State.

METHOD OF MEASUREMENT: "BREAK INTO EXISTING HANDHOLE" shall be measured for payment by the unit "EACH" per handhole regardless of the number of conduits being installed complete in place and accepted.

BASIS OF PAYMENT: "BREAK INTO EXISTING HANDHOLE" shall be paid for at the contract unit price bid per "EACH", which price shall include full compensation for all materials, equipment, tools, labor and work incidental thereto complete in place and accepted by the Engineer.

JOB SPECIFIC

T05.9902

BREAK INTO EXISTING MANHOLE

DESCRIPTION: Work under this item shall consist of breaking into existing manholes at locations specified on the plans or as directed by the Engineer for conduit installation.

MATERIALS: The materials for this work shall conform to the relevant provisions of the "Rhode Island Standard Specifications for Road and Bridge Construction", 2004 Edition including all revisions.

CONSTRUCTION METHODS: At locations where new conduit is being installed into an existing manhole or existing conduit is being replaced with a larger size conduit, the Contractor shall drill a hole into the manhole of adequate size to easily insert the conduit, insert the new or larger conduit and grout the manhole around the new conduit. The construction methods for this item shall be done in accordance with R.I. Standard Specifications and the appropriate utility company standards including field drilling, grouting, grounding and bushings. The Contractor shall minimize damage to the existing manhole, and shall be responsible for repairing any damage that occurs as a result of the work being performed under this item of work. Repair and restoration of the manhole shall be done to the satisfaction of the Engineer at no additional cost to the State.

METHOD OF MEASUREMENT: "BREAK INTO EXISTING MANHOLE" shall be measured for payment by the unit "EACH" complete in place and accepted by the Engineer.

BASIS OF PAYMENT: "BREAK INTO EXISTING MANHOLE" shall be paid for at the contract unit price bid per "EACH" which price shall include full compensation for all materials, equipment, tools, labor and work incidental thereto complete in place and accepted by the Engineer.

JOB SPECIFIC

T05.9903
DEWATERING

DESCRIPTION: This item specifies the requirements for dewatering of existing conduit, hand holes, and manholes. The Contractor shall perform all work necessary to provide a clear and unobstructed conduit system, hand hole, or manhole.

MATERIALS: The materials for this work shall conform to the relevant provisions of the "Rhode Island Standard Specifications for Road and Bridge Construction", 2004 Edition including all revisions.

CONSTRUCTION METHODS: The work shall be performed at locations where water exists in existing conduit, hand holes, and manholes where new cable is to be installed (by this contractor or others). The Contractor shall utilize water pumping, compressed air blowing or other approved techniques to remove water and other debris from existing conduit systems, hand holes, and manholes. This work shall be performed in coordination with work efforts from other contractors. The construction methods for this item shall be done in accordance with R.I. Standard Specifications and the appropriate utility company as required.

METHOD OF MEASUREMENT: "DEWATERING" will be measured for payment by the unit "EACH" per location complete and accepted by the Engineer. A location shall be defined as a maximum of one hundred and fifty linear feet of conduit and two handholes or manholes.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per "EACH" for "DEWATERING" complete in place and accepted by the Engineer. The price shall include full compensation for all materials, equipment, tools, labor, and work thereto.

JOB SPECIFIC

T06.9901

WEATHER HEAD INSTALLATION ON EXISTING POLE

DESCRIPTION: This item of work shall conform to the applicable sections of the Standard Specifications for Road and Bridge Construction, 2004 Edition including all revisions, as defined in this contract document. This item shall consist of furnishing and installing a 2 inch rigid steel weather head onto existing steel poles. The Weather head shall be installed at the locations shown on the Plans.

MATERIALS: The materials for this work shall conform to the following requirements:

1. **General Requirements:** The weather head shall meet the following requirements:
 - 1.1. The Weather head shall be of rugged design suitable for outdoor use.
 - 1.2. The contractor shall supply to the Engineer a design of the weather head to be installed.
 - 1.3. The contractor shall bore a hole into the existing poles the appropriate size needed to install the 2 inch weather head taking care not to damage any wiring within steel pole. The boring method shall be approved by the Engineer.
 - 1.4. The contractor shall be responsible for repairing any damage incurred by the weather head installation to the satisfaction of the Engineer.
 - 1.5. The contractor shall use a weather type sealant approved by the Engineer.
 - 1.6. The contractor shall make the seal between the weather head and existing pole watertight.
 - 1.7. The Weather head shall conform to ANSI/NEMA FB 1.
 - 1.8. The Weather head shall be U.L. listed 514-B.

METHOD OF MEASUREMENT: "WEATHER HEAD INSTALLATION ON EXISTING POLE" will be measured for payment by the unit "EACH" for each unit installed and accepted by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per "EACH" for "WEATHER HEAD INSTALLATION ON EXISTING POLE" complete in place and accepted. The price shall include full compensation for all materials, tools and equipment including the weather head, sealant, labor, and work thereto.

JOB SPECIFIC

T06.9902

DUAL 1-1/4 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDER
EXISTING PAVEMENT

T06.9903

SINGLE 1-1/4 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDER
EXISTING PAVEMENT

T06.9904

DUAL 1-1/4 INCH HIGH DENSITY POLYETHYLENE DUCT –
UNDERGROUND

T06.9905

SINGLE 1-1/4 INCH HIGH DENSITY POLYETHYLENE DUCT –
UNDERGROUND

T06.9906

DUAL 2 INCH HIGH DENSITY POLYETHYLENE DUCT –
UNDERGROUND

T06.9907

SINGLE 2 INCH HIGH DENSITY POLYETHYLENE DUCT –
UNDERGROUND

T06.9908

DUAL 3 INCH HIGH DENSITY POLYETHYLENE DUCT –
UNDERGROUND

T06.9909

SINGLE 3 INCH HIGH DENSITY POLYETHYLENE DUCT –
UNDERGROUND

DESCRIPTION: This item of work shall conform to the applicable sections of the Standard Specifications for Road and Bridge Construction with the following additions.

- Dual Ducts shall consist of two ducts laid side by side within the same trench.
- Single Duct shall consist of a single duct within a trench.

The duct shall be manufactured from high-density polyethylene (HDPE). The ducts shall have a smooth outer wall. The duct shall contain a copper conductor within the wall of the duct so that the duct itself is tonable. The underground ducts shall be orange in color and all ducts shall be capable of being coiled on reels in continuous lengths, transported,

stored outdoors and uncoiled for installation with no degradation in its properties or performance.

MATERIALS: The duct shall be manufactured from high-density polyethylene (HDPE) and shall be UL listed HDPE and compliant with Article 353 of the 2008 NEC NFPA 70 National Electric Code and NEMA (National Electrical Manufacturers Association) TC 7, Smooth-Wall Coilable Electrical Polyethylene Conduit. The duct shall perform in both underground and above ground installations in an ambient temperature range of minus 30 degrees F to 130 degrees F without degradation in its properties or performance. The duct shall be bendable to a minimum supported radius of 10 times the duct diameter.

The duct shall be free of visible cracks, holes, or other physical defects that would degrade its properties or performance. The duct shall be as uniform as practicable in respect to overall dimensions, color, density and thickness. The duct shall be shipped on lightweight metal reels in maximum lengths possible. The duct shall be capable of being encased in concrete with no degradation to its properties of materials.

The ducts shall have a UV light stabilizer that will protect the duct such that there will be no degradation in the ducts properties or performance for a minimum of 12 months in direct sunlight during shipping and storage.

The duct shall have a durable identification showing the name of the manufacturer, the duct size and sequential markings every two feet printed on the duct. The duct shall be equipped with factory installed pull tape (no rope will be allowed) with a minimum tensile strength of 1250 pounds and pre-lubricated to aid in the fiber optic cable installation. The length of the pull tape shall exceed the length of the duct by a minimum of 3 percent. The open ends of the ducts shall be sealed by caps to prevent the entrance of moisture and dirt prior to installation.

The HDPE ducts shall meet the following:

- 1) 1 ¼" Nominal Outside Diameter (O.D.) = 1.660" +/- 0.15"
- 2) 1 ¼" Minimum Inside Diameter (I.D.) = 1.30" +/- .10"
- 3) 1 ¼" Minimum Wall thickness = 0.125" +/- 0.005"
- 4) 2" Nominal Outside Diameter (O.D.) = 2.375" +/- 0.15"
- 5) 2" Minimum Inside Diameter (I.D.) = 2.002" +/- .10"
- 6) 2" Minimum Wall thickness = 0.176" +/- 0.005"
- 7) 3" Nominal Outside Diameter (O.D.) = 3.500" +/- 0.15"
- 8) 3" Minimum Inside Diameter (I.D.) = 2.959" +/- .10"
- 9) 3" Minimum Wall thickness = 0.259" +/- 0.005"

Innerduct conduit shall be used where directed by the Engineer and shall conform to the following:

- 1) Shall meet UL(910) standards for the national electrical code, article 770, and satisfies UL-2024 standards for low smoke and flame propagation
- 2) Shall be corrugated and available in 1" and 1 1/4" with pre-installed pull tape.
- 3) The inner ducts shall include a pre-installed pull tape for use in cable installation.

The length of the pull tape in each inner duct reel shall exceed the length of the inner duct by a minimum of three-percent.

- 4) Where Innerducts are required, the cost will become incidental to the HDPE conduit that will receive the Innerducts.

Detectable Marking Tape

Detectable marking tape shall be buried directly above the HDPE duct 12 inches below the finished grade of the pavement, sidewalk or ground. The detectable marking tape shall be orange in color with a width of 6 inches. The tape shall have a dense metallic coating to enable it to be detectable by metal detectors. The tape shall be continuously labeled with a message that reads "CAUTION FIBER OPTIC LINE BURIED BELOW", and the printing shall be sealed by a protective layer on the tape.

Duct Plugs

Duct plugs shall be installed at all below surface locations where the HDPE duct is open ended. The duct plugs shall seal the duct from allowing water or debris from entering the duct. Split plugs for sealing innerduct and cable shall be installed at all open ended duct locations that contain cable. The duct plugs shall be provided by the same supplier of the HDPE duct.

CONSTRUCTION METHODS: The HDPE ducts shall be installed in accordance with the applicable sections of Section T.06 Conduit of the Rhode Island department of Transportation Standard Specifications for Road and Bridge Construction, 2004 Edition including all updates and in accordance with the details in the Plans to the approval of the Engineer.

All ducts installed underground shall be located a minimum of 36 inches below final grade of the pavement, sidewalk, or ground. The ducts shall be installed side by side where called for on the Plans and shown in the details. The ducts shall not cross over one another anywhere within the trench.

All ducts under existing roadway pavement shall be installed using an automatic trenching machine. All underground ducts shall be backfilled with flowable fill. The detectable marking tape shall be placed directly above HDPE duct 12 inches below the finished grade of the pavement, sidewalk or ground. All paved surfaces shall be restored in accordance with subsection T.06.03.1 subsection b of the Rhode Island department of Transportation Standard Specifications for Road and Bridge Construction, 2004 Edition including all updates. In areas that are not paved, the surface shall be restored in accordance with subsection T.01.03.6. All excavated material shall be removed and legally disposed of by the Contractor.

METHOD OF MEASUREMENT: "DUAL 1-1/4 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDER EXISTING PAVEMENT", "SINGLE 1-1/4 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDER EXISTING PAVEMENT", "DUAL 1-1/4 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDERGROUND", "SINGLE 1-1/4 INCH HIGH DENSITY POLYETHYLENE

DUCT – UNDER GROUND”, “DUAL 2 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDERGROUND”, “SINGLE 2 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDER GROUND”, “DUAL 3 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDERGROUND”, “SINGLE 3 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDER GROUND” shall be measured for payment by the unit “LINEAR FOOT” of duct actually installed complete in place and accepted by the Engineer.

BASIS OF PAYMENT: “DUAL 1-1/4 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDER EXISTING PAVEMENT”, “SINGLE 1-1/4 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDER EXISTING PAVEMENT”, “DUAL 1-1/4 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDERGROUND”, “SINGLE 1-1/4 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDERGROUND”, “DUAL 2 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDERGROUND”, “SINGLE 2 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDERGROUND”, “DUAL 3 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDERGROUND”, “SINGLE 3 INCH HIGH DENSITY POLYETHYLENE DUCT – UNDERGROUND” which price shall include full compensation for all materials, ducts, duct plugs, detectable marking tape, pull tapes, trenching, backfilling, flowable fill, restoring pavements, topsoil and seeding, removing and disposing excavated material, connections, equipment, tools, labor, and work incidental thereto complete in place and accepted by the Engineer.

JOB SPECIFIC

T11.9901

SERVICE POLE STANDARD, WOOD 40 FOOT

T11.9902

SERVICE POLE STANDARD, WOOD 45 FOOT

DESCRIPTION: This item of work shall consist of furnishing and installing wood service pole standard.

MATERIALS: The service pole standard shall consist of a Class II, wood pole, southern pine, pressure treated to current standard specifications. The materials shall meet the requirements of Section T.11 "Traffic Signal Standards and Posts", Rhode Island Standard Specification for Road and Bridge Construction, 2004 Edition including all revisions.

CONSTRUCTION METHODS: The provisions of Section T.11.03.3 shall apply. The installed pole shall meet all minimum standards set by Cox Communications, Verizon, and National Grid and shall be installed in accordance with RI Standard Detail 18.7.0.

1. The 40 foot pole shall have a minimum embedment depth of 8 feet.
2. The 45 foot pole shall have a minimum embedment depth of 10 feet.

METHOD OF MEASUREMENT: "SERVICE POLE STANDARD, WOOD 40 FOOT" and "SERVICE POLE STANDARD, WOOD 45 FOOT" shall be measured for payment by the unit "EACH" complete in place and accepted.

BASIS OF PAYMENT: "SERVICE POLE STANDARD, WOOD 40 FOOT" and "SERVICE POLE STANDARD, WOOD 45 FOOT" will be paid for at the contract unit price bid for "EACH", which price shall include all necessary excavation, backfilling, disposal of excess materials, and plantable soil and seeding in accordance with SECTION T.01.03.7 of the R.I. Standard Specifications for Road and Bridge Construction, 2004 Edition with the latest revisions, labor, work incidental thereto complete in place and accepted by the Engineer.

JOB SPECIFIC

T11.9903

INSTALL EXISTING 80 FOOT CAMERA POLE ON NEW FOUNDATION

DESCRIPTION: This work shall consist of transporting, installing, and testing an existing galvanized steel camera pole with lowering device to a new foundation and ground rod array as directed by the Engineer, all in accordance with the Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition and the latest revisions.

DESIGN:

Calculations: The new foundation and anchor bolts shall conform to the details and reactions of the existing pole designed to support a domed camera and lowering device. Design computations and shop drawings for the existing camera pole can be obtained at the Rhode Island Department of Transportation.

All completed shop drawings and design computations for the anchor bolts and foundation shall bear the stamp of a Registered Professional Engineer in the State of Rhode Island. 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 its responsibility for the design, fabrication and erection of the structure.

CONSTRUCTION METHODS:

Pole

Existing camera poles, lowering devices, junction boxes, composite cables and other equipment will be stored at a RIDOT-owned storage location chosen by the TMC. The Contractor shall be required to load, transport, and unload all existing equipment required from the storage site(s) to the specific construction site location(s).

The Contractor shall be certified by MG2 (the lowering device manufacturer) or shall have an MG2 representative on-site to assist with the assembly and testing of the lowering device system onto the pole assembly. MG2 shall furnish the engineering documentation certifying that the Contractor has been given instructions regarding the installation, operation and safety features of the lowering device.

The lowering device shall be installed in accordance with the manufacturer's directions and the cabling shall be installed in existing/proposed conduit/pull boxes to a control cabinet if required. The Contractor shall minimize damage to the existing equipment and shall be responsible for repairing any damage that occurs as a result of the work being performed under this item of work. Repair and restoration of the camera pole and lowering device equipment shall be done to the satisfaction of the Engineer at no additional cost to the State.

The camera pole shall be installed in accordance with the National Electric Safety Code.

Ground Rod Array: The Contractor shall supply and install a ground array system to be installed at the base of the camera pole as shown on the Plans. The ground array system shall be connected to the pole through an appropriate ground clamp. A #4 AWG copper wire shall be installed between the camera pole and the control cabinet providing a common ground system for each terminus. A flexible conduit through the foundation to the inside of the pole shall provide the means to connect the ground wire from the inside of the pole to the ground rods. No ground wires mounted externally to the camera pole will be permitted.

Foundation

Standards for the camera pole foundation shall be installed as indicated on the Plans and shall conform to the following requirements:

Prior to fabrication, the Contractor shall take field measurements of the existing base plate, including but not limited to, the overall dimension, number of holes, hole size and bolt circle. The Contractor shall assure proper fit of the finished work and shall assume full responsibility for their accuracy.

Prior to fabrication, the Contractor shall submit shop drawings, layout drawings and specifications for equipment and appurtenances for the approval of the Engineer.

Foundations: The Contractor shall provide a concrete foundation in accordance with the plans that conforms to the Rhode Island Standard Specifications, 2004 Edition as amended.

Cast-in-place Concrete Pole Foundation shall be Class HP (AE) Concrete = 5000 psi at 28 days, in accordance with the latest revision of tables (1) and (2) under Section 601 "Portland Cement Concrete" of the Rhode Island Standard Specifications for Road and Bridge Construction 2004 Edition and the latest revisions. Reinforcing Steel shall be epoxy coated per AASHTO M284 and conform to ASTM Designation A615, Grade 60. The concrete shall cure a minimum of 28 days before any load is applied to the foundation. Crushed stone shall be placed and compacted on a prepared surface to a 12" minimum thickness in accordance with Section 203.03.6 Crushed Stone Fill under Structures.

Anchor Bolts: Anchor bolts shall conform to the requirements of ASTM F1554 Grade 55. At a minimum, 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.

METHOD OF MEASUREMENT: "INSTALL EXISTING 80 FOOT CAMERA POLE ON NEW FOUNDATION" shall be measured for payment by the unit "EACH" per unit installed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT: The accepted quantity of "INSTALL EXISTING 80 FOOT CAMERA POLE ON NEW FOUNDATION" will be paid for at its respective contract unit price per "EACH" as listed in the Proposal. The price so stated shall constitute full and complete compensation for all field measurement, design, materials, labor, tools and equipment, excavating, backfilling, disposal of excess materials, topsoil and seeding, and all other incidentals required to complete the work as described in these Special Provisions and elsewhere in the Contract Documents, complete in place and accepted by the Engineer.

JOB SPECIFIC

T11.9904

40 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE
AND FOUNDATION

T11.9905

50 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE
AND FOUNDATION

T11.9906

60 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE
AND FOUNDATION

T11.9907

80 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE
AND FOUNDATION

DESCRIPTION: This work shall consist of furnishing, installing, and testing a galvanized steel camera pole with foundation, lowering device, ground rod array, lightning dissipaters and surge suppressors at the locations and heights indicated on the Plans or as directed by the Engineer, all in accordance with the Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition and the latest revisions. 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.

MATERIALS:

Camera Pole

- A. Material Certification: All materials and products shall be manufactured in the United States of America, and comply with ASTM or AASHTO specifications. Mil certifications shall be supplied as proof of compliance with the specifications.
- B. Fabricator: The Fabricator shall be certified under Category I, "Conventional Steel Structures" as set forth by the American Institute of Steel Construction Quality Certification Program. Proof of this certification will be required.
- C. Welding: 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 ultrasonically and radiographically inspected.
- D. Pole Shaft: The pole shaft shall be one or two-piece construction and shall conform to ASTM A595 Grade A with a minimum yield strength of 55 ksi or

ASTM A572 with a minimum yield strength of 65 ksi. The pole shaft shall be galvanized in accordance with ASTM A123. The shaft shall be round or 16 sided 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 complete penetration welds. The shaft shall be hot dip galvanized per the requirements of the contract documents.

DESIGN:

- E. Camera poles, foundations, connections, clamps, anchor bolts, 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 2001 AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, Fourth Edition" and Section T.11 Traffic Signals and Standards of the Rhode Island Standard Specifications, 2004 Edition as amended.
- F. Calculations: The pole shall be designed to support a domed camera and lowering device. Close consideration must be given to the effective projected area of the complete lowering system and camera equipment to be mounted on the pole along with the weight when designing the pole to meet the specified deflection performance criteria including 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 90 mph (non-gust) winds.
 2. 1 inch due to 30 mph (non-gust) winds.
- a. All complete shop drawings and design computations shall bear the stamp of a Registered Professional Engineer in the State of Rhode Island. 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 its responsibility for 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.
- b. The calculations shall include a pole, base plate, and anchor bolt analysis. 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:
1. The pole's diameter, thickness, section modulus, moment of inertia, and cross sectional area.

2. The centroid, weight, projected area, drag coefficient, velocity pressure, and wind force of each trapezoidal pole segment.
 3. 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.
 4. The pole's angular and linear deflection at each elevation.
- G. The Contractor shall submit manufacturer's shop drawings, layout drawings and specifications for equipment and appurtenances for the approval of the Engineer.

Camera Lowering System

- H. 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 not acceptable.
- I. 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 EPA or an EPA greater than that of the camera system to be attached. The camera lowering device shall be as follows:
1. 40 Foot Poles - $[MG]^2$ Model CLDMG2-IPH-040 (DOM)
 2. 50 Foot Poles - $[MG]^2$ Model CLDMG2-IPH-050 (DOM)
 3. 60 Foot Poles - $[MG]^2$ Model CLDMG2-IPH-060 (DOM)
 4. 80 Foot Poles - $[MG]^2$ Model CLDMG2-IPH-080 (DOM)
- J. The lowering device manufacturer shall furnish a factory representative to assist the electrical contractor with the assembly and testing of the first lowering system onto the pole assembly. The manufacturer shall furnish the Engineer documentation certifying that the electrical contractor has been instructed on the installation, operation and safety features of the lowering device. The contractor shall be responsible for providing applicable maintenance personnel "on site" operational instructions.

Suspension Contact Unit

- K. The suspension contact unit shall have a load capacity 600 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 movable 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 dust and moisture.
- L. 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 lowering device manufacturer shall provide a conduit mount adapter for housing the lowering cable. This adapter shall have an interface to allow the connection of a contractor provided conduit and be located just below the cable stop block at the back of the lowering device. The Contractor shall supply a 1-¼" PVC internal conduit in the pole to separate the lowering cable from other equipment cables. The conduit shall be installed to a point approximately 12 inches above the handhole. 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.
- M. The female and male socket contact halves of the connector block shall be made of a UL94, V-0 rated thermosetting synthetic rubber elastomer. (An elastomer is defined as a polymer with viscoelasticity (colloquially "elasticity"), generally having low Young's modulus and high yield strain compared with other materials.) The female barrel contacts and the male pin contacts shall be encased into the synthetic rubber body.
- N. All current carrying male pin contacts shall be gold-plated, beryllium copper and 0.09 inches in diameter at the contact area. All current carrying female barrel contacts shall also be gold-plated, beryllium copper and at least 0.09 inches I.D. at the contact area. Each individual female barrel contact shall have a stainless steel sleeve which prevents foreign matter from entering the contact area as well as preclude the possibility of the leaves of the female contact from opening beyond allowable limits and ensure a snug fit around the respective male pins. There shall be at least one female contact that is positioned closer to the face of the female connector body than all the others, which will allow it to make first and break last, providing optimum grounding performance.
- O. Each IP Male/Female connector shall include (8) contacts soldered to CAT6 1000 Base TX Wire and (5) contacts soldered to #18DLO wire which may be used for additional camera requirements including but not limited to power, alarms or

- grounds. Each male shall be self wiping upon insertion the contacts must be successfully tested and certified to a minimum of CAT5 100 Base T requirements.
- P. Each male contact and female barrel contact shall be individually soldered to its respective wire and encased in their respective Male and Female molded Hypalon blocks to provide optimum protection from moisture and the elements.
- Q. 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 shall meet Mil Spec Q-9858 and Mil Spec I-45208.
- R. All pulleys for the camera lowering device and portable lowering tool 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.
- S. All electrical and video coaxial connections between the fixed and lowerable 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 one (1) volt peak-to-peak video signals as well as the power requirements for operation of dome environmental controls.
- T. 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, powder coated, galvanized, or otherwise protected from the environment by industry-accepted coatings to withstand exposure to a corrosive environment.
- U. 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 control components in order that it can be lowered properly.
- V. The Camera Assembly manufacturer shall provide the power and signal connectors for attachment to the bare leads in the pole top and camera junction boxes.
- W. The Camera Assembly manufacturer shall provide a mounting flange sufficient for mounting their respective camera assembly to the bottom of the Camera connection box.

Camera Junction Box

- X. The camera junction box shall be of two piece clamshell design with one hinge side and one latch side to facilitate easy opening. The general shape of the box shall be cylindrical to minimize the EPA. The Camera Junction Box shall be cast aluminum with stabilizing weights on the outside of the box to increase room on the interior. The box shall be capable of having up to 40 pounds of stabilizing weights. The bottom of the Camera Junction Box shall be drilled and tapped with a 1½” NPT thread to accept industry standard dome housings and be able to be modified to accept a wide variety of other camera mountings. The junction box shall be gasketed to prevent water intrusion. The bottom of the box shall incorporate a screened and vented hole to allow airflow and reduce internal condensation.

Lightning Dissipater

- Y. The Contractor shall supply and install a Lightning Master Corporation Model #CA-72-CAM system or approved equivalent as shown on the 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 and/or installed in the Ground Mounted Control Cabinet as recommended by the lightning dissipater manufacturer. 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.

CONSTRUCTION METHODS: Standards and posts for the camera poles shall be installed as indicated on the Plans and shall conform to the following requirements:

- Z. Camera Poles shall be capable of withstanding the applied load shown on the plans with the maximum deflection as indicated above without the necessity of a back guy. Camera poles shall be installed in accordance with the National Electric Safety Code.
- AA. Foundations. The Contractor shall provide a concrete foundation in accordance with the plans that conforms to the latest edition (and interim specifications) of the 2001 AASHTO “Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, Fourth Edition” and the Rhode Island Standard Specifications, 2004 Edition as amended.

Concrete

- i. Cast-in-place Concrete Pole Foundation shall be Class HP (AE) Concrete = 5000 psi at 28 days, in accordance with the latest revision of tables (1) and (2) under Section 601 “Portland Cement Concrete” of the Rhode Island Standard Specifications for Road and Bridge Construction 2004

Edition and the latest revisions. Reinforcing Steel shall be epoxy coated per AASHTO M284 and conform to ASTM Designation A615, Grade 60. The concrete shall cure a minimum of 28 days before any load is applied to the foundation. Crushed stone shall be placed and compacted on a prepared surface to a 12" minimum thickness in accordance with Section 203.03.6 Crushed Stone Fill under Structures.

- BB. Hand Holes: The hand hole opening shall be reinforced with a minimum 2-inch wide hot rolled steel rim. The nominal outside dimension is 6 inches x 27 inches. The hand hole shall have a galvanized steel cover secured with a clip on lock and tamper proof bolts. The handhole shall have a tapped hole for mounting the portable lowering tool supplied by MG². The hand holes shall be fully compatible with the portable lowering tool.
- CC. Weatherhead: 2 Inch galvanized steel weatherheads shall be installed in the camera pole as shown in the plans for wire access to mounted equipment.
- DD. Pole Top Tenon: The pole shall have a custom plate mounted tenon that allows the field modification of the arm/camera orientation up to 360 degrees. With this design, the Engineer can make slight orientation modifications to the camera mount to allow optimum viewing in case of future road development, change in terrain or a change in the viewing needs priority. The tenon shall have mounting holes and slot as required for the mounting of the camera-lowering system. The tenon shall be of dimensions necessary to facilitate camera lowering device component installation. Each slot shall be parallel to the pole centerline for mounting the lowering device. For details, see applicable drawings.
- EE. Cable Supports / Wire Eyes and Park Stand: Two wire eyes and three park stands shall be located within the pole. One wire eye shall be positioned 2 inches below the handhole and the other shall be positioned 1 inch directly below the top of tenon. Two park stands shall be positioned a maximum of 2.0 inches below the top of the handhole and located at 90 and 270 degrees from the handhole. A third park stand shall be located in the center of the upper inside edge of the handhole as shown on the drawings. These park stands shall be fabricated from rod having a minimum of 1/4 inch O.D. and a max 3/8 inch O.D.
- FF. Base Plate: Base plates shall conform to ASTM A36 or A572 Grade 42. Plates shall be integrally welded to the tubes with a telescopic welded joint or a full penetration butt weld with backup bar. After the plates are welded to the pole, the assembly shall be hot dip galvanized as a single unit per the requirements of the contract documents.
- GG. Anchor Bolts: Anchor bolts shall conform to the requirements of ASTM F1554 Grade 55. At a minimum, 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.

- HH. Ground Rod Array: The Contractor shall supply and install a ground array system to be installed at the base of the camera pole as shown on the Plans. The ground array system shall be connected to the pole through an appropriate ground clamp. A #4 AWG copper wire shall be installed between the camera pole and the control cabinet providing a common ground system for each terminus. A flexible conduit through the foundation to the inside of the pole shall provide the means to connect the ground wire from the inside of the pole to the ground rods. No ground wires mounted externally to the camera pole will be permitted.

METHOD OF MEASUREMENT: “40 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE AND FOUNDATION”, “50 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE AND FOUNDATION”, “60 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE AND FOUNDATION” and “80 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE AND FOUNDATION” shall be measured for payment by the unit “EACH” per unit installed in accordance with the Plans and/or as directed by the Engineer.

BASIS OF PAYMENT: The accepted quantity of “40 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE AND FOUNDATION”, “50 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE AND FOUNDATION”, “60 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE AND FOUNDATION” and “80 FOOT GALVANIZED STEEL CAMERA POLE WITH LOWERING DEVICE AND FOUNDATION” shall be paid for at the contract unit price bid per “EACH” as listed in the Proposal. The prices so stated constitute full and complete compensation for all design, materials, labor, tools and equipment, including camera pole with foundation, lowering device, ground rod array, lightning dissipater, and surge suppressor, excavating, backfilling, disposal of excess materials, topsoil and seeding, and all other incidentals required to complete the work as described in these Special Provisions and elsewhere in the Contract Documents, complete in place and accepted by the Engineer.

JOB SPECIFIC

T11.9908

PORTABLE LOWERING TOOL

DESCRIPTION: This item specifies the requirements for the portable lowering tool used to raise and lower the camera assembly utilizing the camera lowering device. The portable lowering tool shall be manufactured and supplied by [MG] ² to be compatible with the existing camera lowering devices and poles installed in the state of RI.

MATERIALS: The tool shall consist of a lightweight metal frame and winch assembly with cable as described herein, a quick release cable connector, an adjustable safety clutch and a variable speed industrial duty electric drill motor. This tool shall be compatible with accessing the support cable through the hand hole of the pole. The lowering tool shall attach to the pole with one single bolt. The tool will support itself and the load assuring lowering operations and provide a means to prevent freewheeling when loaded. The lowering tool shall be delivered to the Transportation Management Center Manager upon project completion. The lowering tool shall have a reduction gear to reduce the manual effort required to operate the lifting handle to raise and lower a capacity load. The lowering tool shall be provided with an adapter for operating the lowering device by a portable drill using a clutch mechanism. The lowering tool shall be equipped with a positive breaking mechanism to secure the cable reel during raising and lowering operations and prevent freewheeling.

The manufacturer shall provide a variable speed, heavy-duty reversible drill motor and a lowering tool. The lowering tool shall be made of durable and corrosion resistant materials, powder coated, galvanized, or otherwise protected from the environment by industry-accepted coatings to withstand exposure to a corrosive environment.

The Contractor shall develop and submit shop drawings in accordance with Subsection 105.02; Plans and Shop Drawings of the Rhode Island Standard Specifications for Road and Bridge Construction Design, 2004 Edition including all revisions.

METHOD OF MEASUREMENT: "PORTABLE LOWERING TOOL" will be measured for payment by the unit "EACH" for each unit tested and accepted by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per "PORTABLE LOWERING TOOL", complete in place. The price shall include full compensation for all materials including the lowering tool and heavy duty reversible drill.

JOB SPECIFIC

T11.9909 - MAST ARM - 4 FOOT
T11.9910 - MAST ARM - 6 FOOT
T11.9911 - MAST ARM - 8 FOOT
T11.9912 - MAST ARM - 10 FOOT
T11.9913 - MAST ARM - 12 FOOT

DESCRIPTION: This item of work shall consist of furnishing and installing a mast arm and mounting hardware on an existing wood, steel or aluminum pole, structure or building as shown on plans or as directed by the Engineer. The length of the mast arm shall be as shown on the plans or as determined by the Engineer.

MATERIALS: The Contractor shall furnish and install a mast arm with a length as shown on the plans or as determined by the Engineer. The mast arm shall be made of aluminum with a standard mill aluminum finish and shall meet the requirements of Section T.11 "Traffic Signal Standards and Posts", Rhode Island Standard Specification for Road and Bridge Construction, 2004 Edition including all revisions. The mast arm may be a single monolever or truss type. The mast arm shall be lightweight in construction and meet all of the requirements of ANSI 136.13. The mast arm shall allow for various types of mounting including banding, lag screws, and through bolts. All mounting hardware shall be galvanized or stainless steel and approved by the Engineer. The mast arm shall contain a pre-drilled hole with protective rubber grommet for electrical wiring. The end of the mast arm shall be a vertical tubular member with a 1.5 inch NTP female threaded pipe capable of mounting a camera dome. The mast arm shall also contain a grounding lug for use in electrical grounding and bonding.

The Contractor shall develop and submit shop drawings in accordance with Subsection 105.02; Plans and Shop Drawings of the Rhode Island Standard Specifications for Road and Bridge Construction Design, 2004 Edition including all revisions.

CONSTRUCTION METHODS: The provisions of Section T.11.03.3 shall apply. The installed mast arm shall meet all minimum standards as set by the mast arm manufacturer. Mast arm lengths shall be as shown on the plans or as directed by the Engineer.

METHOD OF MEASUREMENT: "MAST ARM - 4 FOOT", "MAST ARM - 6 FOOT", "MAST ARM - 8 FOOT", "MAST ARM - 10 FOOT", and "MAST ARM - 12 FOOT" shall be measured for payment by the unit "EACH" complete in place, installed, and accepted.

BASIS OF PAYMENT: "MAST ARM - 4 FOOT", "MAST ARM - 6 FOOT", "MAST ARM - 8 FOOT", "MAST ARM - 10 FOOT", and "MAST ARM - 12 FOOT" will be paid for at the contract unit price bid for "EACH", which price shall include all necessary mounting hardware, labor, and work incidental thereto complete in place and accepted by the Engineer.

JOB SPECIFIC

T12.9901
METER PEDESTAL

DESCRIPTION: The work under this item specifies the requirements for the Meter Pedestal. The Meter Pedestal shall be constructed as shown on details contained in the plans. The Contractor shall furnish and install the Meter Pedestal in the locations as shown on the plans. The Meter Pedestal shall consist of pressure treated timbers anchored in cement concrete, 2" rigid steel conduit, grounding system as required by National Electric Code (NEC), and all necessary clamps and hardware to provide for a complete Meter Pedestal as shown in the plans.

CONSTRUCTION METHODS: The Meter Pedestal shall be installed by the Contractor at the locations as shown on the Plans, in accordance with the construction details, and as directed by the Engineer.

This work shall consist of furnishing and installing an Electric Meter Pedestal that meets the following requirements:

- A. The Contractor shall install two 2" x 12" pressure treated timbers to a minimum burial depth of 34". The Contractor shall pour a minimum of 24" diameter of Class A (AE) cement concrete to anchor the pressure treated timbers. A minimum depth of 9" of cement concrete shall be required to anchor the pressure treated timbers.
- B. The Contractor shall securely fasten the 2" x 12" pressure treated timbers to one another using galvanized screws or other methods approved by the Engineer. The center of the meter socket shall have a maximum allowable height above ground of six feet and a minimum allowable height above ground of four feet.
- C. The Contractor shall backfill the area of installation and repair the area to its original condition including plantable soil and seed.
- D. The Contractor shall supply and install two 2" rigid steel conduits attached to the pressure treated timbers to be used for the electrical service connection. The conduit sweeps shall be a minimum depth of 18". The conduit shall be attached with galvanized steel clamps and screws with a spacing meeting the requirements of the NEC.
- E. The Contractor shall supply and install a 3/4" x 10' copper ground rod and ground wire as per the National Electric Code (NEC) requirements. All clamps and ground wire connections shall meet NEC requirements.

METHOD OF MEASUREMENT: "METER PEDESTAL" will be measured by the unit "EACH" for each unit installed and accepted by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per "EACH" for "METER PEDESTAL" complete in place and accepted. The price shall include full compensation for all materials, equipment, tools, disposal of excess materials, testing, labor, and work thereto.

JOB SPECIFIC

T12.9902

DISCONNECT SWITCH

DESCRIPTION: The work under this item specifies the requirements for the Disconnect Switch. The Disconnect Switch shall be constructed as shown on details contained in the plans at locations where 480 VAC service is provided to the site by the utility. The Contractor shall furnish and install the Disconnect Switch as required by National Electric Code (NEC) and by the utility providing electrical service.

CONSTRUCTION METHODS: The Disconnect Switch shall be installed by the Contractor in accordance with the construction details, and at locations as directed by the Engineer.

This work shall consist of furnishing and installing a Disconnect Switch that meets the following requirements:

- A. The Disconnect Switch shall meet National Grid cold sequence requirements.
- B. The Disconnect Switch shall be a heavy duty 4-wire, three blade solid neutral disconnect switch and shall be rated for 600 VAC and 100 Amperes.
- C. The Disconnect Switch shall include three (3) type H cartridge fuses
- D. The Disconnect Switch shall be UL listed.
- E. The Disconnect Switch enclosure shall be rated NEMA 3R.
- F. The Disconnect Switch shall prevent opening the enclosure door when the handle is in the ON position.
- G. The Disconnect Switch shall include provisions to padlock the handle (to be locked by National Grid) to prevent unauthorized change to the position of the disconnect switch.
- H. The Disconnect Switch shall include a clear shield inside the enclosure to prevent accidental contact with energized parts.

METHOD OF MEASUREMENT: "DISCONNECT SWITCH" will be measured for payment by the unit "EACH" for each unit installed and accepted by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per "EACH" for "DISCONNECT SWITCH" complete in place and accepted. The price shall include full compensation for all materials, tools and equipment including the disconnect

switch, labor, and work thereto, including all incidentals required to install, complete in place and accepted by the Engineer.

JOB SPECIFIC

T12.9903
TRANSFORMER

DESCRIPTION: The work under this item specifies the requirements for the Transformer. The Transformer shall be constructed as shown on details contained in the plans to step down the utility voltage to 120/240 VAC at locations where 480 VAC service is provided to the site by the utility. The Contractor shall furnish and install the Transformer as required by National Electric Code (NEC) and by the utility providing electrical service.

CONSTRUCTION METHODS: The Transformer shall be installed by the Contractor in accordance with the construction details, and at locations as directed by the Engineer.

This work shall consist of furnishing and installing a Transformer that meets the following requirements:

- A. The Transformer shall be a 7.5KVA 1-phase sealed transformer.
- B. The Transformer shall have a 240 X 480VAC primary.
- C. The Transformer shall have a 120/240VAC secondary.
- D. The Transformer enclosure shall be painted steel
- E. The Transformer enclosure shall be rainproof and ice/sleet proof, and shall be rated NEMA 3R.
- F. The Transformer shall be UL listed and CSA Certified.
- G. The Transformer shall be wall mountable and wall mounting brackets shall be a standard part of the enclosure.
- H. The transformer shall be approved for use by the electric utility supplying 480VAC power to the site.

METHOD OF MEASUREMENT: "TRANSFORMER" will be measured for payment by the unit "EACH" for each unit installed and accepted by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per "EACH" for "TRANSFORMER" complete in place and accepted. The price shall include full compensation for all materials, tools and equipment including the transformer, labor, and work thereto, including all incidentals required to install, complete in place and accepted by the Engineer.

JOB SPECIFIC

T12.9904

GROUND MOUNTED CAMERA CONTROL CABINET AND FOUNDATION
T12.9905

POLE MOUNTED CAMERA CONTROL CABINET

DESCRIPTION: The work under this item specifies the requirements for the Ground Mounted Camera Control Cabinet and Foundation and the Pole Mounted Camera Control Cabinet.

MATERIALS: The Contractor shall furnish, install and test the Ground Mounted Camera Control Cabinet and Foundation or Pole Mounted Camera Control Cabinet that meet the following requirements:

- A. The materials for this work shall conform to the relevant provisions of the "Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition with latest revisions.
- B. The ground mounted camera control cabinet shall be 51"H x 30"W x 17"D and the pole mounted camera control cabinet shall be 51"H x 25"W x 16"D. All equipment which will be housed in the cabinet will be shelf mounted.
- C. In unpaved areas a 3'0" x 2'6" x 4" concrete work pad shall be installed in front of the field cabinet door. The pad shall be placed on 6-inches of gravel borrow sub-base course. The pad shall be with a slight grade such that any water on the pad shall flow away from the cabinet.
- D. Each cabinet shall contain a power panel to be located on the interior, lower, right side wall of the cabinet. The power panel shall contain a primary circuit breaker which will accept the incoming, 120 VAC, single phase power. This primary circuit breaker shall serve as the electrical disconnect for the cabinet and shall shut off all cabinet power when in the "off" position. The primary circuit breaker shall be a single pole, 30 amp breaker. Two additional circuit breakers shall be supplied and installed and be fed from the primary circuit breaker. These two circuit breakers shall be single pole, 20 amp circuit breakers. One of these two circuit breakers shall feed the four 15 amp, electrical outlets to be installed in the cabinet while the other 20 amp circuit breaker shall feed a power distribution buss which will provide the hard wired electrical feed for the lamp and the cabinet heater. The power panel shall also contain an EDCO suppression unit ACP-340 which shall be connected directly after the primary circuit breaker. The cabinet shall also be supplied with electrical neutral and ground terminal busses. The electrical neutral buss, the ground buss, the cabinet shell and the ground rod shall all be electrically connected together.
- E. The ground mounted control cabinets shall be secured to a concrete foundation provided by the Contractor.

- F. The cabinet shall protect the electronics and interfaces against: sustained winds of 90 mph, with 120 mph wind gusts, blowing sand and dust, roadside pollutants from vehicle exhausts, blowing rain and snow and heavy ice accumulations experienced in the project area.
- G. The field cabinet shall be weatherproof with the top of the enclosure crowned or slanted to the rear to prevent standing water. The field cabinet shall also provide protection against vandalism and theft of equipment. Each cabinet shall be supplied and installed with a standard number 2 Corbin lock assembly.
- H. The cabinet and doors shall be constructed from 5052-H32 sheet aluminum, which has a thickness of .125 inches. All welds shall be neatly formatted and free of cracks, blowholes and other irregularities.
- I. The cabinet shall be supplied with a captive door restraint bar. The bar shall allow the door to be kept open at a minimum of two different angles; one at 90° and the other in the fully open position. The door restraint bar shall be supplied and installed such that the door is held in place during a 40 mph wind without the restraint bar being bent. The door restraint bar shall be provided to prevent door movement when open in windy conditions.
- J. Door hinges shall be continuous and bolted to the cabinet and door utilizing ¼-20 stainless steel carriage bolts and nylock nuts. The hinges shall be made of .083 inch thick aluminum and shall have a .250 inch diameter stainless steel hinge pin. The hinge pin shall be capped at the top and bottom by a weld to prevent removal.
- K. The top and bottom of the latching pushrods shall contain nylon rollers to promote secure door closure.
- L. The door handle shall be stainless steel with a ¾" diameter shank. The latching handle shall have provisions for padlocking in the closed position. A solid ¼" diameter brass weatherproof padlock approved by the Engineer shall be installed with each cabinet. All padlocks supplied as part of this project shall be keyed alike.
- M. The cabinet shall be supplied with four sets of keys for each of the two cabinet locks and the padlock and shall be delivered to the RIDOT.
- N. The cabinet shall be covered by a one year dated warranty covering material defects for one year from date of acceptance by RIDOT.
- O. The cabinet shall be equipped with a slide out metal drawer mounted below the bottom shelf. The drawer shall contain nylon or ball bearing rollers to facilitate movement of the drawer. The drawer shall have a hinged, metal, lift top cover and storage area for manuals and wiring diagrams. It shall be constructed and installed such that it is capable of holding a 15 lb. notebook computer.

- P. The field cabinet shall be provided with four utility duplex electric power outlets to support electrical equipment. The power outlets shall be installed with minimum 2 inch spacing between each another. The utility power outlets shall be installed within the field cabinet and not on the cabinet door. The current rating of the duplex outlets shall be 15 amperes.
- Q. The field cabinet shall contain a power switch mounted within the cabinet to control power to each of the four duplex outlets.
- R. The Contractor shall supply and install a thermostatically controlled electric fan(s) in the field cabinet to maintain the temperature within the field cabinet to that required by the equipment for outside temperatures as specified in these Technical Special Provisions. Thermostats shall have the capability of being field adjusted from 50° F to 120 ° F.
- S. All exposed, high voltage electrical terminals shall be insulated with non-conducting material such as rubber boots or silicon/rubber caulking.
- T. The cabinet shall be supplied and installed with a heater. The 200 watt heater shall be a self contained device designed to provide heat for an outdoor metal enclosure. The 120 VAC heater shall be hardwire connected to the cabinet's electrical power distribution buss. The heater shall have an on/off switch along with an adjustable thermostat with a minimum turn on range of 10 to 60°F. The heater shall be installed in the lower portion of the cabinet allowing for the heat generated by the unit to rise. It shall be mounted such that it is not blocking or touching installed equipment. It shall not be installed directly under a shelf. This will preclude the opportunity of the shelf getting so hot that it may melt the rubber feet of the installed equipment. There shall be sufficient space around the unit to facilitate proper air flow. The control knob for the thermostat shall be located such that it can easily be read and adjusted by field personnel.
- U. All air venting arrangements shall contain air filters. The air filters shall have an average rated efficiency of 30 % and an arresance of 90 % when tested in accordance with ASHRAE 52.1-1992 Test Standard. The filter shall be listed and rated Class 2 by the Underwriters Laboratories. All fans shall be located above the air filters at the top of the cabinet.
- V. All intake and exhaust vents shall meet NEMA 3R requirements with and without powering the air venting arrangements. All exhaust vents shall be furnished with a screen to prevent insects from entering the field cabinet.
- W. The cabinet shall be supplied and installed with an internal light consisting of a 100 watt lamp installed at the top of the cabinet. This light shall automatically turn on when the cabinet door is open and shut off when the door is closed. The light shall be hardwire connected to the cabinet's electrical power distribution buss.

- X. The Contractor shall furnish in a watertight container a control cabinet wiring diagram. Three wiring diagrams shall be furnished for each cabinet.
- Y. The Contractor shall furnish conduits as shown on the Plans, including two 2-inch spare conduits, into the ground mounted cabinets in the quantities and locations as shown in the Plans. Spare conduits shall be capped approximately 5± feet from the control box or cabinet. The contractor shall etch an arrow in the foundation marking the location of the spare conduits as well as depicting the location on the "As-builts".
- Z. The Contractor shall be responsible for the following:
- All interconnects of power (from the utility access point throughout the assembly)
 - Maintaining power ground
 - Providing all power protection
 - Providing all power conversions
 - Assuring that all selected equipment will comply and operate according to the requirements specified herein.
 - Providing local power control ON/OFF supporting maintenance safety
 - Adhere to all applicable NEC, IEEE 1100-1992, UL 1459, and UL 1950 standards and practices.

The Contractor shall develop and submit shop drawings in accordance with Subsection 105.02; Plans and Shop Drawings of the Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition, including all revisions.

METHOD OF MEASUREMENT: "GROUND MOUNTED CAMERA CONTROL CABINET AND FOUNDATION" and "POLE MOUNTED CAMERA CONTROL CABINET" will be measured for payment by the unit "EACH" for each unit installed and accepted by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per "EACH" for "GROUND MOUNTED CAMERA CONTROL CABINET AND FOUNDATION", and "POLE MOUNTED CAMERA CONTROL CABINET" complete in place and accepted. The price shall include full compensation for all materials, equipment including cabinets, foundation, concrete work pad, mounting hardware, ground rod and wire, conduits, appurtenances, making all required tests, tools, labor, excavation, backfill, disposal of excess materials, top soil and seeding, and work thereto.

JOB SPECIFIC

T12.9906

BREAK INTO EXISTING CABINET

DESCRIPTION: This item specifies the requirements for breaking into existing control cabinets to install a 90° rigid metal steel watertight conduit elbow fitting. The Contractor shall use extreme caution when breaking into an existing control cabinet. The Contractor shall perform all work necessary to provide a clear and unobstructed conduit elbow into the existing control cabinet.

MATERIALS: The materials for this work shall conform to the relevant provisions of the “Rhode Island Standard Specifications for Road and Bridge Construction”, 2004 Edition including all revisions.

CONSTRUCTION METHODS: The work shall be performed at locations where wiring by others will be required and existing spare conduit is not available. The Contractor shall drill into the cabinet at the appropriate location as determined by the Engineer. The Contractor shall perform the work with care using caution to prevent metal shavings from the drilling process from interfering with existing control cabinet operations. Once the appropriate size hole has been drilled, a 90° rigid metal steel elbow watertight fitting shall be installed. The size and location for the rigid metal steel elbow fitting shall be determined by the Engineer. The Contractor shall clean and remove all metal shavings and debris from the drilling process once the steel conduit elbow has been installed. The construction methods for this item shall be done in accordance with R.I. Standard Specifications and approved by the Engineer.

METHOD OF MEASUREMENT: “BREAK INTO EXISTING CABINET” will be measured for payment by the unit “EACH” complete, installed and accepted by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per “EACH” for “BREAK INTO EXISTING CABINET” complete in place and accepted by the Engineer. The price shall include full compensation for all materials, equipment, tools, labor, and work thereto.

JOB SPECIFIC

T12.9907

GROUND MOUNTED P SIZE REPLACEMENT CABINET

T12.9908

GROUND MOUNTED M SIZE REPLACEMENT CABINET

T12.9909

POLE MOUNTED M SIZE REPLACEMENT CABINET

DESCRIPTION: The work under this item specifies the requirements for the Ground Mounted P Size Replacement Cabinet, the Ground Mounted M Size Replacement Cabinet, and the Pole Mounted M Size Replacement Cabinet.

MATERIALS: The Contractor shall furnish, install and test the Ground Mounted P Size Replacement Cabinet, the Ground Mounted M Size Replacement Cabinet, or the Pole Mounted M Size Replacement Cabinet that meet the following requirements:

- A. The materials for this work shall conform to the relevant provisions of the "Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition with latest revisions.
- B. The replacement cabinet shall meet the following requirements:
 - 1. The Ground Mounted P Size Replacement Cabinet shall be a size 6(P) NEMA TS-2 compliant cabinet and shall be 56"H x 44"W x 25.5"D
 - 2. The Ground Mounted M Size Replacement Cabinet shall be a size 5(M) NEMA TS-2 compliant cabinet and shall be 51"H x 30"W x 17"D
 - 3. The Pole Mounted M Size Replacement Cabinet shall be a size 5(M) NEMA TS-2 compliant cabinet and shall be 51"H x 25"W x 16"D.
- C. The ground mounted cabinets shall be secured to the existing concrete foundation.
- D. The pole mounted cabinets shall be secured to the existing pole in the same location as the cabinet being replaced.
- E. The cabinet shall protect the electronics and interfaces against: sustained winds of 90 mph, with 120 mph wind gusts, blowing sand and dust, roadside pollutants from vehicle exhausts, blowing rain and snow and heavy ice accumulations experienced in the project area.
- F. The field cabinet shall be weatherproof with the top of the enclosure crowned or slanted to the rear to prevent standing water. The field cabinet shall also provide protection against vandalism and theft of equipment. Each cabinet shall be supplied and installed with a standard number 2 Corbin lock assembly.

- G. The cabinet and doors shall be constructed from 5052-H32 sheet aluminum, which has a thickness of .125 inches. All welds shall be neatly formatted and free of cracks, blowholes and other irregularities.
- H. The cabinet shall be supplied with a captive door restraint bar. The bar shall allow the door to be kept open at a minimum of two different angles; one at 90° and the other in the fully open position. The door restraint bar shall be supplied and installed such that the door is held in place during a 40 mph wind without the restraint bar being bent. The door restraint bar shall be provided to prevent door movement when open in windy conditions.
- I. Door hinges shall be continuous and bolted to the cabinet and door utilizing ¼-20 stainless steel carriage bolts and nylock nuts. The hinges shall be made of .083 inch thick aluminum and shall have a .250 inch diameter stainless steel hinge pin. The hinge pin shall be capped at the top and bottom by a weld to prevent removal.
- J. The top and bottom of the latching pushrods shall contain nylon rollers to promote secure door closure.
- K. The door handle shall be stainless steel with a ¾" diameter shank. The latching handle shall have provisions for padlocking in the closed position.
- L. The cabinet shall be supplied with two sets of keys for the Corbin lock assembly and the keys shall be delivered to the RIDOT.
- M. The cabinet shall be covered by a one year dated warranty covering material defects for one year from date of acceptance by RIDOT.
- N. The cabinet surfaces shall be bare aluminum with a polished finish.
- O. The cabinet shall be equipped with a slide out metal drawer mounted below the bottom shelf. The drawer shall contain nylon or ball bearing rollers to facilitate movement of the drawer. The drawer shall have a hinged, metal, lift top cover and storage area for manuals and wiring diagrams. It shall be constructed and installed such that it is capable of holding a 15 lb. notebook computer.
- P. The Contractor shall supply and install a thermostatically controlled electric fan(s) in the field cabinet to maintain the temperature within the field cabinet to that required by the equipment for outside temperatures as specified in these Technical Special Provisions. Thermostats shall have the capability of being field adjusted from 50° F to 120 ° F.
- Q. All air venting arrangements shall contain air filters. The air filters shall have an average rated efficiency of 30 % and an arresance of 90 % when tested in accordance with ASHRAE 52.1-1992 Test Standard. The filter shall be listed and

rated Class 2 by the Underwriters Laboratories. All fans shall be located above the air filters at the top of the cabinet.

- R. All intake and exhaust vents shall meet NEMA 3R requirements with and without powering the air venting arrangements. All exhaust vents shall be furnished with a screen to prevent insects from entering the field cabinet.
- S. The Contractor shall supply a heater in the cabinet. The 200 watt cabinet heater shall be a self contained device designed to provide heat for an outdoor metal enclosure. The unit shall operate at 120 VAC and be connected directly into the cabinets power distribution circuit thus eliminating the need to power the unit through a duplex outlet. The unit shall contain an adjustable control knob on the front of the unit to allow the user to adjust temperature settings. The heater shall be installed at the bottom section of the cabinet to allow for the heat generated by the unit to rise. It shall be mounted in the cabinet such that the unit is not blocked by other cabinet equipment and there is sufficient space around the heater to facilitate proper air flow. The unit shall be situated such that it will allow easy access for field staff to adjust the front panel control knob.
- T. The cabinet shall be provided with internal lighting consisting of a 100 watt lamp installed at the top of the cabinet. This lighting shall be automatically activated upon door opening and extinguished upon door closing.
- U. The field cabinet shall be provided with four utility duplex electric power outlets to support electrical equipment. The power outlets shall be installed with minimum 2 inch spacing between each another. The utility power outlets shall be installed within the field cabinet and not on the cabinet door. The current rating of the duplex outlets shall 15 amperes.
- V. Each cabinet shall contain a power distribution panel to be located on the lower, right side wall. The power panel shall be fed by a primary circuit breaker which will serve as the cabinet disconnect. This primary circuit breaker shall be rated at 30 amperes. Six branch circuit breakers shall be installed to distribute and protect power. The cabinet heater shall be connected to one branch circuit, the cabinet fan and light shall be connected to one branch circuit, and the four duplex electrical outlets shall each be connected to separate branch circuits. The power panel shall also contain an EDCO SHA-1230FS suppression unit, or equivalent, which shall be connected directly after the primary circuit breaker. The cabinet shall also be supplied with electrical neutral and ground terminal busses. The electrical neutral buss, the ground buss and the cabinet shell shall all be electrically connected together.
- W. All exposed, high voltage electrical terminals shall be insulated with non-conducting material such as rubber boots or silicon/rubber caulking.

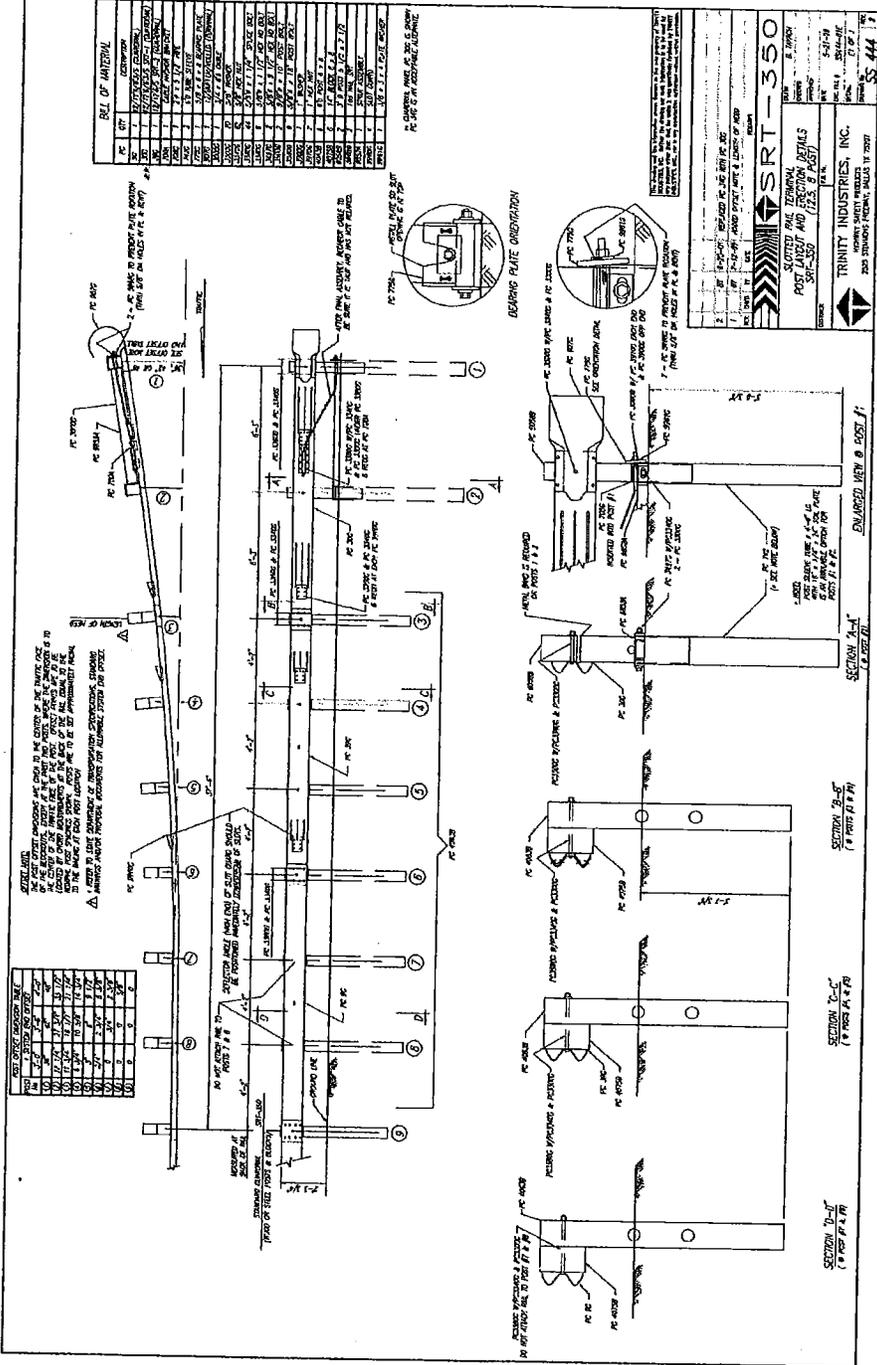
- X. The Contractor shall furnish in a watertight container a control cabinet wiring diagram. Three wiring diagrams shall be furnished for each cabinet.
- Y. The Contractor shall be responsible for the following:
1. All interconnects of power (from the utility access point throughout the assembly)
 2. Maintaining power ground
 3. Providing all power protection
 4. Assuring that all selected equipment will comply and operate according to the requirements specified herein.
 5. Providing local power control ON/OFF supporting maintenance safety.
 6. Adhere to all applicable NEC, IEEE 1100-1992, UL 1459, and UL 1950 standards and practices.

CONSTRUCTION METHODS: The work shall be performed at locations where equivalent size cabinets and mounting exists. The Contractor shall remove all salvageable and undamaged equipment from the existing cabinet, as directed by the Engineer or the TMC, which includes, but is not limited to communications equipment, video equipment, electronic sign controllers, traffic counters, power supplies, power conditioners, and uninterruptible power supplies. The contractor shall reinstall in the new cabinet all salvaged equipment which is not already provided with the new cabinet. All equipment shall be installed in the new cabinet in the same fashion as previously installed in the old cabinet. Any changes to the equipment installation or mounting require prior approval by the Engineer or the TMC. Any salvaged equipment which is not installed in the new cabinet shall be provided to the TMC for spares. The Contractor shall dispose of the damaged cabinet and any unsalvageable equipment, unless otherwise directed by the Engineer or the TMC.

METHOD OF MEASUREMENT: "GROUND MOUNTED P SIZE REPLACEMENT CABINET", "GROUND MOUNTED M SIZE REPLACEMENT CABINET" and "POLE MOUNTED M SIZE REPLACEMENT CABINET" will be measured for payment by the unit "EACH" complete, installed and accepted by the Engineer.

BASIS OF PAYMENT: This work will be paid for at the contract unit price bid per "EACH" for "GROUND MOUNTED P SIZE REPLACEMENT CABINET", "GROUND MOUNTED M SIZE REPLACEMENT CABINET" and "POLE MOUNTED M SIZE REPLACEMENT CABINET" complete in place and accepted. The price shall include full compensation for all materials including cabinets, mounting hardware, wire, and conduit connections, equipment, appurtenances, tests, tools, labor, and work thereto.

REV	DATE	BY	CHKD
1			
2			
3			



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

**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

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.

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.

II. NONDISCRIMINATION

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

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

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

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

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

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

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

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

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

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

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

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

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

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

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

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

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

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

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

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

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

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

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

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

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

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

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

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

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

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

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

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

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

1. Minimum wages

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

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

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

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

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

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

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

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

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

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

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

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

2. Withholding

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

3. Payrolls and basic records

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

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347Instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

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

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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

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

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

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

b. Trainees (programs of the USDOL).

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

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

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

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

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

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

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

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and Interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

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

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the 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 contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

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

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

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

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

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

2. Instructions for Certification - Lower Tier Participants:

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

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

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

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

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

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

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

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-L.L.L., "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

APPENDIX A
TITLE VI ASSURANCE

Rhode Island Department of Transportation
Title VI Assurance

Appendix A

During the performance of this Contract, the contractor, for itself, its assignees and successors in interest (the Contractor) agrees as follows:

- (1) **Compliance with Regulations:** The Contractor shall comply with the regulations relative to nondiscrimination in federally-assisted programs of the Rhode Island Department of Transportation (the Department), 49 C.F.R. Part 21, as they may be amended from time to time (the Regulations), and which are herein incorporated by reference and made a part of this Contract.
- (2) **Nondiscrimination:** The Contractor, with regard to the work performed by it during the Contract, shall not discriminate on the grounds of race, color, sex, national origin, age, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the Contract covers a program set forth in Appendix B of the Regulations.
- (3) **Solicitations for Subcontractors, Including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Contractor of the Contractor's obligations under this Contract and the Regulations relative to nondiscrimination on the grounds of race, color, sex, national origin, age, or disability.
- (4) **Information and Reports:** The Contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Department or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of the Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the Department, or the Federal Highway Administration, as appropriate, and shall set forth what efforts it has made to obtain the information.
- (5) **Sanctions for Noncompliance:** In the event of the Contractor's noncompliance with the nondiscrimination provisions of this Contract, the Department shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - (a) withholding of payments to the Contractor under the Contract until the Contractor complies, and/or
 - (b) cancellation, termination or suspension of the Contract, in whole or in part.

Rhode Island Department of Transportation
Title VI Assurance

Appendix A

- (6) **Incorporation of Provisions:** The Contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto.

The Contractor shall take such action with respect to any subcontract or procurement as the Department or the Federal Highway Administration may direct as a means of enforcing such provisions, including sanctions for non-compliance; provided, however, that in the event the Contractor becomes involved in or is threatened with litigation with a subcontractor or supplier as a result of such direction, the Contractor may request the Department to enter into such litigation to protect the interests of the Department and, in addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

APPENDIX
CERTIFICATIONS

The bidder shall include the provisions of paragraphs (a) through (f) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto.

The bidder shall take such action with respect to any subcontract or procurement as the Department or the Federal Highway Administration may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event the bidder becomes involved in or is threatened with litigation with a subcontractor or supplier as a result of such direction, the bidder may request the Department to enter into such litigation to protect the interests of the Department and, in addition, the bidder may request the United States to enter into such litigation to protect the interests of the United States.

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER
RESPONSIBILITY MATTERS--PRIMARY COVERED TRANSACTIONS**

Instructions For Certification

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective 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 primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.
4. The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The prospective primary 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 proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

7. The prospective primary 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 Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.
9. 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 a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, 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.

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER
RESPONSIBILITY MATTERS--PRIMARY COVERED TRANSACTIONS**

- (1) The prospective primary participant 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 by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal 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;
 - (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 in paragraph (1)(b) of this certification;
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Signature/Authorized Certifying Official

Typed Name and Title

Applicant/Organization

Date Signed

49 CFR Part 29 - Appendix B

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION--LOWER TIER COVERED TRANSACTIONS

Instructions For Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.
2. 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.
3. 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 when submitted or had become erroneous by reason of changed circumstances.
4. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meaning set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. 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 proposed for debarment under 48 CFR part 9, subpart 9.4, 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.
6. 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.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from covered transactions, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.
8. 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 a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, 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 AN
VOLUNTARY EXCLUSION--LOWER TIER COVERED TRANSACTIONS**

- (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 participation in this transaction 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.

Signature/Authorized Certifying Official

Typed Name and Title

Applicant/Organization

Date Signed

BID CONDITIONS**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL 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 and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area, are as follows:

Timetables	Goals for Minority Participation for Each Trade	Goals for Female Participation in Each Trade
	3.0% R.I. Except Newport County	6.9%
	3.1% Newport County	6.9%

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

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of 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, 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 through the Area Director, OFCCP, 169 Weybosset Street, Providence, Rhode Island 02903, within 10 working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. 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.
4. As used in this Notice, and in the contract resulting from this Solicitation, the "covered area" is the State of Rhode Island.

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

1. As used in these specifications:
 - (a) "Covered area" means the geographical area described in the solicitation from which this contract resulted.
 - (b) "Director" means Director, Office of Federal Contract Compliance Programs United States Department of Labor, or any person to whom the Director delegates authority.
 - (c) "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - (d) "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000.00 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in a 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 7a 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 to employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - (a) Ensure and maintain a working environment free of harassment, intimidation and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all on site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - (b) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organization 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 therefor, along with whatever additional actions the Contractor may have taken.
 - (d) Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - (e) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources 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, annual report, etc.; 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 on site supervisory personnel such as Superintendents, Supervisors, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
 - (h) Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
 - (i) Direct its recruitment efforts, both oral and written, to minority female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection procedures.
 - (j) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
 - (k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
 - (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, through appropriate training, etc., such opportunities.
 - (m) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to 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 associations, 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 work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of

- actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though a Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
 10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
 11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
 12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
 13. The Contractor, in fulfilling its obligations under these specifications shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
 14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at 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 shall not be required to maintain separate records.
 15. Nothing herein provided shall be construed as a limitation upon 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.).
 - (a) A Form 257, Monthly Employment Utilization Report, is to be completed by both Contractor and Subcontractors, and signed by the designated EEO Officer or an authorized representative of the prime or subcontractor. The reports are to be submitted by the 5th of each month during the term of the contract. The Contractor shall submit an aggregate Form 257 showing its entire work force, minority work force, and female work force (in work hours), on all construction work (Federal and non-federally assisted) in the covered area. The Contractor shall collect and submit reports for each Subcontractor's aggregate work force, providing the same information as above.
 - (b) The Contractor shall submit a Form PR-1391, Federal-Aid Highway Construction Contractors' Annual EEO Report, to be completed by the Contractor and each Subcontractor for every month of July, during which work was performed and submitted to the State. A separate report is to be completed for each Contractor and subcontractor holding contracts or subcontracts exceeding \$10,000.00, except where specified. The employment data entered should reflect the work force on board during all or any part of

the last payroll period preceding the end of the month of July.

NOTE: Include the R.I. Contract Number in the upper right hand corner of the form.

- (c) The Contractor shall submit a Form EEO-10, Federal-Aid Highway Construction Contractors' Semiannual Training Report, to be completed by the Contractor semiannually for each individual employed on this contract (including any subcontractors under it who have provided training during the reporting period under the training special provision). This report is to be submitted by the 20th of the month following the reporting period (July 20 and January 20). The original of this report is to be furnished to the trainee, and two (2) copies submitted to the State.

These reports are required by the Public Laws of Rhode Island (1960), Chapters 85, 96, & 88; 23 U.S.C., 140(a); 23 CFR, Part 23; and Executive Order 11246.