STATE OF RHODE ISLAND DIVISION OF PURCHASES

Bid:

Specifications for

On-Call Video Equipment Procurement Services

to be performed at various statewide locations TBD, for the

Rhode Island Department of Transportation
Transportation Management Center

2 Capitol Hill, RM 150, Providence, RI

2019

STATE OF RHODE ISLAND DIVISION OF PURCHASES

Bid Number:

Rhode Island Contract Number: 2019-OS-042

Solicitation Information

Advertisement:	May 7, 2019
Pre Bid Meeting:	May 22, 2019 @ 10: AM in Room 140 of TMC @ RIDOT
Bid Open:	June 4, 2019 @ 1:00 PM - Division of Purchases
Close of Questions:	May 26, 2019 @ noon
Contract Duration:	Three Years from the Notice to Proceed Date with option to renew at the sole discretion of the State
DBE Goal:	0%

REQUIRED FORMS: All Forms (Attached at End of Solicitation) must be signed and submitted with your Bid Proposal.

Questions:

Prospective Bidders are hereby notified that all questions pertaining to this Contract must be submitted to the Department of Transportation in writing through its website at http://www.dot.ri.gov/contracting/bids/ by accessing the Questions & Answers Menu located within the "Contracting", then "Contract Opportunities" link. Responses to the submitted questions will also be posted under this link. PHONE CALLS WILL NOT BE ACCEPTED.

GENERAL PROVISIONS – CONTRACT SPECIFIC

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1. **BRIEF SCOPE OF WORK:**

The work under this Contract is for On-Call Video Equipment Procurement Services for the Rhode Island Department of Transportation's Transportation Management Center (TMC) for a period of three (3) years from written Notice to Proceed. At RIDOT's discretion, this Contract may be renewed annually for up to two (2) additional years. Annual renewal of this Contract shall be pending: a) federal funding approval and, b) the State's satisfaction and acceptance of the selected Contractor's services upon completion of each anticipated contract year.

The project includes, but is not limited to, the furnishing and installation of video cameras and all associated utility connections and wiring; spare parts; and software support for various headend video management system components. This bid solicitation includes a list of items anticipated to be procured and installed 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 quantities, and some may not meet the bid quantities. However, responders are required to bid on all items on the associated bid list. Bids that do not include all items may be considered unresponsive and removed from consideration at the State's sole discretion.

All work will be performed on State owned, limited access and/or arterial type roadways, or at the TMC. It will be the Contractor's responsibility to provide all tools and other equipment needed to complete the work.

2. **NOTICE TO CONTRACTOR:**

This Contract, and the submitted bid prices, are for a period of three (3) years from written Notice to Proceed and shall include all renewal options.

The basis of award of the Contract will be the total bid price at the mutual agreement of the State and the Contractor for all quantities of work in this bid solicitation.

For the purposes of this contract, the Rhode Island Department of Transportation Standard Specifications for Road and Bridge Construction and Standard Details consist of the following:

- The Rhode Island Standard Specifications for Road and Bridge Construction, 2004 Edition (amended March 2018), with all revisions.
- The Rhode Island Standard Details, 1998 Edition (rev. March 2018) with all revisions.

In addition to the total bid price the Contractor must submit a list of qualified personnel and equipment 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) telecommunications licensed technicians.
    - The Contractor must own the following equipment in a legally registered and operational state (the Contractor shall submit poof of said ownership):
        - 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 on **June 4, 2019** at 1:00 PM, however no prices will be read due to time constraints. Bids will be acknowledged only. All bidders MUST register online at https://www.ridop.ri.gov/. A 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 (401) 222-3766. Failure to comply will result in mandatory disqualification per Item 4 of Section 102.12 of the Rhode Island Department of Transportation's Standard Specifications for Road and Bridge Construction 2004 Edition (Amended March 2018) with all revisions, and RI General Law 37-2-17 which references the RI Vendor Information Program (RIVIP).

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 https://www.ridop.ri.gov/. It is advisable to print only the pages applicable to this bid; the rates active on the Rhode Island Vendor Information Program's 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.

Prior to issuance of a Contract, Vendor shall submit to the Division proof of insurance coverages as set forth in the General Conditions Addendum A (General Insurance Requirements), other applicable General Condition Addenda and/or as required by the solicitation ("Insurance Requirements"). Vendor shall comply with the minimum Insurance Requirements imposed by the State.

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 this Contract.

Pre-Bid Conference - A Pre-Bid Conference will be held in Providence, Rhode Island, Two Capitol Hill, Transportation Management Center (TMC) Rm. 140 at 10:00AM on **May 22, 2019** for the purpose of reviewing problems and/or questions concerning the project. Individuals requesting interpreter services for the hearing impaired must notify 401-222-4971 (T.D.D.) a minimum of three (3) business days, prior to the conference date.

Contractor Submittals:

Shop Drawing Submittals: If requested by the Engineer, the Contractor must develop/submit shop drawings, product data and/or catalog cut-sheets in accordance with Subsection 105.02 – Plans and Shop Drawings – of the Rhode Island Standard Specifications for Road and Bridge Construction, for all items involved in this Contract.

When requested by the Engineer, the Contractor shall submit Shop Drawings within 14 days.

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.

3. LIST OF CONTRACT DRAWINGS:

Sheet No.	Description
N/A	N/A

4. 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.

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.

5. 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.

6. 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 with shall be included in each Contract item bid price.

7. 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 fourteen (14) days of said request. Within fourteen (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.

Special Camera Installation Requirements:

Cameras are to be installed on existing structures, which may include poles, lowering devices, bridge abutments, buildings, or sign structures, at a height of between 20 feet and 50 feet.

The State will provide police detail/traffic control as deemed required by the State. However, the State requires a 14-day advance notice of installation.

For each camera installation, Contractor shall:

- Install power injectors, routers, switches, and other field equipment in existing cabinets adjacent to camera locations. The State will provide 110 VAC Power.
- Provide mounting hardware appropriate to the requested mounting location and camera device, as needed, including wall mount, parapet mount, pendant mount, pole adaptor, and other attachment brackets and hardware, as appropriate.
- Provide all cables and connectors required for field installation, installed in conduit, and in compliance with the latest edition of the National Electric Code.
- Provide a standard 40 foot bucket truck if required at no additional cost to the State for installation of equipment at heights up to 30 feet. For installations above 30 feet, the State will provide a bucket truck, or at the option of the State, the State will request the Contractor to provide a 65 foot bucket truck at the hourly rate provided for under this price agreement.

Special TMC Installation Requirements:

Video Management Processors, Display Video Processors, Network Switches, and other parts related to the Video Management and Distribution System shall be installed in the RIDOT Transportation Management Center Equipment Room as directed by the TMC Manager.

The TMC's existing Video Management System is Symphony, by Aimetis. The Contractor must be certified by Aimetis to purchase items and provide software support for Aimetis systems.

The TMC's existing Video Distribution System is Crestron-based. The Contractor must be certified by Crestron to purchase items and provide software support for Crestron systems.

8. ENVIRONMENTAL PERMITS:

No Environmental Permits or assents are required for this project.

9. 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 101.80 and as allowed for in Section 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.

10. 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 $5,000.00 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 $5,000.00, 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 and services purchased at total cost plus five (5) percent.

11. ADDITIONAL CONTRACTOR REQUIREMENTS:

The following must be included within the sealed bid package on the day of opening:

Contractors must provide evidence that they possess all electrical licenses required to perform the work specified herein in the State of Rhode Island, and the vendor shall maintain valid licenses for the duration of the Contract.

Contractors must possess and submit a copy of a valid Rhode Island Telecommunications Contractor License. Offerers must provide evidence of licensure as a telecommunications system contractor, in compliance with Title 5 Chapter 70 (RIGL) with their offers.

Contractor must possess and submit a copy of a valid Rhode Island Telecommunications Technician license for each technician that is assigned to this project. Each technician must be fully licensed in video, sound, and data.

Contractor must have a minimum of ten (10) years of experience as an integrator. Contractors must have technicians who have completed all aspects of proposed system integration.

Contractors must prove that they possess training certification as it relates to the equipment selected. Certifications must be submitted with the bid package.

Contractor must have an office location or field office within fifty (50) miles of the RIDOT Transportation Management Center.

Contractors must demonstrate previous experience installing equivalent video and networking equipment at three (3) or more field sites.

Contractors must coordinate installation with communication service providers. Most camera installation sites are served by Verizon T1s, COX metro cable, or Verizon Wireless service.

12. TESTING, ACCEPTANCE, WARRANTY AND CLOSEOUT OF WORK:

When performing work under this Contract, the Contractor shall perform relevant acceptance testing as directed by the TMC Manager. This may include, but not be limited to, providing a test plan when requested to, performing the equipment manufacturer's recommended acceptance test procedures, and submitting test results and reports, as appropriate.

The Contractor shall provide a warranty on all installed equipment for a period of three (3) years from the date of acceptance, or for the duration of the manufacturer's warranty, whichever is greater.

The Contractor shall provide as-built drawings within thirty (30) days after the date of acceptance, when requested by the TMC Manager.

13. JOB-SPECIFIC ITEMS:

Selected functional requirements for special items appear on the following pages.

Job Specific Specifications

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JOB SPECIFIC
T04.9901
OUTDOOR 23 AWG CATEGORY 6a STP – NETWORK VIDEO CABLE

DESCRIPTION:
The Contractor shall furnish, install, label and test Outdoor 23 AWG Category 6a STP – Network Video Cable as shown on the Contract Drawings.

MATERIALS:
This specifies the requirements of Outdoor 23 AWG Category 6a STP – Network Video Cable as shown on the Contract Drawings and approved by the Engineer. Contractor shall provide shielded RJ-45 connectors as required. The 23 AWG Category 6a STP cable shall be designed for use for outdoor locations as shown on the Contract Drawings.

1. 23 AWG Category 6a STP – Network Video Cable:
   1.1. The Outdoor 23 AWG Category 6a STP – Network Video Cable shall be designed for outdoor locations for which it is intended and shall maintain the specified electrical properties over the entire temperature range to which it may be exposed.
   1.2. The Outdoor 23 AWG Category 6a STP – Network Video Cable shall have the following characteristics:

1.2.1.	Pair Count:	4
1.2.2.	Conductors:	Solid bare copper
1.2.3.	AWG:	23
1.2.4.	Characteristic Impedance:	100 ohms, +/- 10 ohms
1.2.5.	Operational Temperature Range:	-20°F to +140°F

2. The Outdoor 23 AWG Category 6a STP – Network Video Cable shall comply with the following:
   2.1. The Outdoor 23 AWG Category 6a STP – Network Video Cable shall have EIA/TIA 568B Series standard pin/pair termination assignments. All conductors provided shall be properly and consistently terminated at both ends throughout the entire system.
   2.2. The Outdoor 23 AWG Category 6a STP – Network Video Cable shall comply with the following industry standards: UL 444, UL 1582, ISO/IEC 11801 Class E, ANSI/TIA-568-C.2, and shall be RoHS-compliant.
   2.3. The Outdoor 23 AWG Category 6a STP – Network Video Cable shall be tested to 650 MHz and have guaranteed electrical performance to 500 MHz.
   2.4. The Outdoor 23 AWG Category 6a STP – Network Video Cable shall be of a round design with filler separator for increased electrical performance.
   2.5. The Outdoor 23 AWG Category 6a STP – Network Video Cable shall include an alphanumeric identification code printed every 2 feet.
   2.6. The outer jacket shall be blue in color, or other color as approved by the Engineer.
3. The Outdoor 23 AWG Category 6a STP – Network Video Cable shall meet or exceed the following guaranteed and typical electrical performance specifications:
   3.1. Insertion Loss Maximum in dB/100 m
      3.1.1. At 250 MHz 18.0 dB guaranteed

3.1.2. At 400 MHz 15.9 dB guaranteed
3.1.3. At 500 MHz 43.8 dB guaranteed
3.1.4. At 600 MHz 50.6 dB guaranteed

3.2. NEXT Minimum in dB/100 m

3.2.1. At 250 MHz 40.3 dB guaranteed
3.2.2. At 400 MHz 36.3 dB guaranteed
3.2.3. At 500 MHz 34.8 dB guaranteed

3.3. Return Loss Minimum dB/100 m

3.3.1. At 250 MHz 18.0 dB guaranteed
3.3.2. At 400 MHz 15.9 dB guaranteed
3.3.3. At 500 MHz 15.5 dB guaranteed

SUBMITTALS:

The contractor shall submit product data sheets for the materials provided under this item.

METHOD OF MEASUREMENT:

Item "OUTDOOR 23 AWG CATEGORY 6a STP – NETWORK VIDEO 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 "OUTDOOR 23 AWG CATEGORY 6a STP – NETWORK VIDEO CABLE", complete in place with shielded RJ-45 connectors and accepted by the Engineer. The price shall include full compensation for all materials, equipment, tools, labor, testing and work thereto.

JOB SPECIFIC
T04.9902
23 AWG CATEGORY 6 STP – NETWORK VIDEO CABLE

DESCRIPTION:
The Contractor shall furnish, install, label and test 23 AWG Category 6 STP – Network Video Cable as shown on the Contract Drawings.

MATERIALS:
This specifies the requirements of 23 AWG Category 6 STP – Network Video Cable as shown on the Contract Drawings and approved by the Engineer. Contractor shall provide shielded RJ-45 connectors as required. The 23 AWG Category 6 STP cable shall be designed for use in plenum spaces and locations as shown on the Contract Drawings.

1. 23 AWG Category 6 STP – Network Video Cable:
- 1.1. The 23 AWG Category 6 STP – Network Video Cable shall be designed for indoor locations, plenum spaces, and outdoor locations if enclosed in conduit, for which it is intended and shall maintain the specified electrical properties over the entire temperature range to which it may be exposed
- 1.2. The 23 AWG Category 6 STP – Network Video Cable shall be able to transport Gigabit Ethernet signals from Network Video Equipment to Endpoint Video Devices as shown on the Contract Drawings
- 1.3. The 23 AWG Category 6 STP – Network Video Cable shall be plenum rated and have the following characteristics:

1.3.1.	Pair Count:	4
1.3.2.	Conductors:	Solid bare copper
1.3.3.	AWG:	23
1.3.4.	Characteristic Impedance:	100 ohms, +/- 10 ohms
1.3.5.	Operational Temperature Range:	-4°F to +140°F

2. The 23 AWG Category 6 STP – Network Video Cable shall comply with the following:
- 2.1. The 23 AWG Category 6 STP – Network Video Cable shall have EIA/TIA 568B Series standard pin/pair termination assignments. All conductors provided shall be properly and consistently terminated at both ends throughout the entire system
- 2.2. The 23 AWG Category 6 STP – Network Video Cable shall comply with the following industry standards: UL 444, UL 1582, ISO/IEC 11801 Class E, ANSI/TIA-568-C.2, and shall be RoHS-compliant
- 2.3. The 23 AWG Category 6 STP – Network Video Cable shall be tested to 650 MHz and have guaranteed electrical performance to 500 MHz
- 2.4. The 23 AWG Category 6 STP – Network Video Cable shall be of a round design with filler separator for increased electrical performance
- 2.5. The 23 AWG Category 6 STP – Network Video Cable shall include an alphanumeric identification code printed every 2 feet
- 2.6. The outer jacket shall be blue in color, or other color as approved by the Engineer

3. The 23 AWG Category 6 STP – Network Video Cable shall meet or exceed the following guaranteed and typical electrical performance specifications:
   3.1. Insertion Loss Maximum in dB/100 m
      3.1.1. At 250 MHz 18.0 dB guaranteed
      3.1.2. At 400 MHz 15.9 dB guaranteed
      3.1.3. At 500 MHz 43.8 dB guaranteed
      3.1.4. At 600 MHz 50.6 dB guaranteed
   3.2. NEXT Minimum in dB/100 m
      3.2.1. At 250 MHz 40.3 dB guaranteed
      3.2.2. At 400 MHz 36.3 dB guaranteed
      3.2.3. At 500 MHz 34.8 dB guaranteed
   3.3. Return Loss Minimum dB/100 m
      3.3.1. At 250 MHz 18.0 dB guaranteed
      3.3.2. At 400 MHz 15.9 dB guaranteed
      3.3.3. At 500 MHz 15.5 dB guaranteed

SUBMITTALS:

The Contractor shall submit product data sheets for the materials provided in this item.

CONSTRUCTION METHODS:

The Contractor shall fully comply with the following cable installation procedures when installing wires and cables for this project:

1.1. All cables shall be permanently labeled with alphanumeric cable identifications (cable ID's) as shown in the Contract Drawings
1.2. All labeling shall conform to the TIA 606 labeling standard

METHOD OF MEASUREMENT:

Item "23 AWG CATEGORY 6 STP – NETWORK VIDEO CABLE" shall be measured for payment by the unit "LINEAR FOOT" for 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 "23 AWG CATEGORY 6 STP – NETWORK VIDEO CABLE", complete in place with shielded RJ-45 connectors and accepted by the Engineer. The price shall include full compensation for all materials, equipment, tools, labor, testing and work thereto.

JOB SPECIFIC
T12.9901
IP POE LASER FOCUSED NETWORK CAMERA

DESCRIPTION:

An IP POE Laser Focused Network Camera shall include all hardware, software, and cabling required to make a complete system. The camera shall meet the minimum recommended hardware guidelines as outlined below, and be fully compatible with the TMC's Video Management System. Cameras shall be installed in locations as directed by the TMC Manager, and utilizing the manufacturer's recommended installation procedures. Contractor shall supply all mounting hardware required for a complete installation. The model type is Axis Q-6155-LE, or approved equivalent.

The camera shall:

1. Be manufactured with an outdoor ready NEMA 4x and IP66-rated metal casing and shall operate between -55ºC to +50°C, powered using Power over Ethernet
2. Be equipped with an RJ 45 10BASE-T/100BASE-TX Ethernet interface
3. Be equipped with an automatic Laser focus lLns
4. Support Multiple individually configurable streams in H.264, and Motion JPEG, with a native resolution of 1920x1080 at25/30 fps
5. The camera shall be able to Pan: 360° endless, Tilt: +20 to -90°, Zoom: 30x optical, 12x digital, total 360x zoom
6. Support Power over Ethernet according to IEEE 802.3af
7. Accept static IP addresses as well as addresses provided by a DHCP
8. Support both IPv4 and IPv6 based addresses
9. Provide text overlay that includes date/time support synchronized with an NTP server, and the ability to apply a graphical image as an overlay or privacy mask into the video image
10. Provide multiple user password levels, support for HTTPS and SSL/TLS and incorporate IEEE 802.1X authentication
11. Be equipped with a built-in web server
12. Be supported by an open and published API
13. Be conformant to the network video standard as defined by the ONVIF organization
14. Camera shall be attached using the axis IP66 rated RJ 45 connector

METHOD OF MEASUREMENT:

Item "IP POE LASER FOCUSED NETWORK CAMERA" will be measured by "EACH" unit actually installed in accordance with the Contract Documents and/or as directed by the Engineer.

BASIS OF PAYMENT:

The accepted quantity of Item "IP POE THERMAL NETWORK CAMERA" 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 hardware, components, software, installation and testing, as well as all labor, additional materials, tools and equipment, and all other incidentals

(including cabling) 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
T12.9902
IP POE IR ILLUMINATED NETWORK CAMERA

DESCRIPTION:
An IP POE IR Illuminated Network Camera shall include all hardware, software, and cabling required to make a complete system. The camera shall meet the minimum recommended hardware guidelines as outlined below, and be fully compatible with the TMC's Video Management System. Cameras shall be installed in locations as directed by the TMC Manager, and utilizing the manufacturer's recommended installation procedures. Contractor shall supply all mounting hardware required for a complete installation. The model type is Axis Q-6125-LE, or approved equivalent.

The camera shall:
1. Be manufactured with an outdoor ready NEMA 4x and IP66-rated metal casing and shall operate between -55ºC to +50°C, powered using Power over Ethernet
2. Be equipped with an RJ 45 10BASE-T/100BASE-TX Ethernet interface
3. Be equipped with Optimized with power-efficient, long life 850 nm IR LEDs
4. Support Multiple individually configurable streams in H.264, H.265 and Motion JPEG, with a native resolution of 1920x1080 at25/30 fps
5. The camera shall be able to Pan: 360° endless, Tilt: +20 to -90°, Zoom: 30x optical, 12x digital, total 360x zoom
6. Support Power over Ethernet according to IEEE 802.3af
7. Accept static IP addresses as well as addresses provided by a DHCP
8. Support both IPv4 and IPv6 based addresses
9. Provide text overlay that includes date/time support synchronized with an NTP server, and the ability to apply a graphical image as an overlay or privacy mask into the video image
10. Provide multiple user password levels, support for HTTPS and SSL/TLS and incorporate IEEE 802.1X authentication
11. Be equipped with a built-in web server
12. Be supported by an open and published API
13. Be conformant to the network video standard as defined by the ONVIF organization
14. Camera shall be attached using the axis IP66 rated RJ 45 connector

METHOD OF MEASUREMENT:
Item "IP POE IR ILLUMINATED NETWORK CAMERA" will be measured by "EACH" unit actually installed in accordance with the Contract Documents and/or as directed by the Engineer.

BASIS OF PAYMENT:
The accepted quantity of Item "IP POE THERMAL NETWORK CAMERA" 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 hardware, components, software, installation and testing, as well as all labor, additional materials, tools and equipment, and all other incidentals (including cabling) 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
T12.9903
PTZ DOME IP POE NETWORK CAMERA WITH 30X ZOOM

DESCRIPTION:
A PTZ Dome IP POE Network Camera with 30x zoom shall include all hardware, software, and cabling required to make a complete system. The camera shall meet the minimum recommended hardware guidelines as outlined below, and be fully compatible with the TMC's Video Management System. Cameras shall be installed in locations as directed by the TMC Manager, and utilizing the manufacturer's recommended installation procedures. Contractor shall supply all mounting hardware required for a complete installation. The model type is Axis Q-6054-E MKIII, or approved equivalent.

The camera shall:
1. Be manufactured with an all-metal body
2. Be both IP66 and NEMA 4X-rated, and operate between -40°C to +50°C (-40°F to +122°F)
3. Be equipped with a 10BASE-T/100BASE-TX Ethernet interface. A stand alone injector shall provide required power to camera, heaters and fans over the network cable
4. Be equipped with a progressive scan sensor, support Wide Dynamic Range and provide images down to 0.5 lux in day mode and 0.008 lux in night mode
5. Be equipped with 30x optical zoom with 12x digital zoom and Day/Night functionality
6. Provide at an resolutions up to 1280x720 pixels at 50/60 frames per second Support Multiple, individually configurable streams in H.264 and Motion JPEG Support both unicast and multicast H.264 with support for both Constant and Variable Bit Rate
7. Accept static IP addresses as well as addresses provided by a DHCP
8. Support both IPv4 and IPv6 based addresses
9. Provide accurate high-speed pan-tilt functionality with 360° endless pan range and a 220° tilt range
10. Provide pan and tilt speed between 0.05° - 450°/sec
11. Support at least 256 presets
12. Provide text overlay that includes date/time support synchronized with an NTP server and the ability to apply a graphical image as an overlay into the video image.
13. Provide multiple user password levels, support for HTTPS and SSL/TLS and incorporate IEEE 802.1X authentication
14. Be supported by an open and published API
15. Be equipped with a built-in web server

METHOD OF MEASUREMENT:
Item "PTZ DOME IP POE NETWORK CAMERA WITH 30X ZOOM" will be measured by "EACH" unit actually installed in accordance with the Contract Documents and/or as directed by the Engineer.

BASIS OF PAYMENT:

The accepted quantity of Item "PTZ DOME IP POE NETWORK CAMERA WITH 30X ZOOM" 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 hardware, components, software, installation and testing, as well as all labor, additional materials, tools and equipment, and all other incidentals (including cabling) 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
T12.9904
4-VIEW IP POE NETWORK CAMERA

DESCRIPTION:
A 4-View IP POE Network Camera shall include all hardware, software, and cabling required to make a complete system. The camera shall meet the minimum recommended hardware guidelines as outlined below, and be fully compatible with the TMC's Video Management System. Cameras shall be installed in locations as directed by the TMC Manager, and utilizing the manufacturer's recommended installation procedures. Contractor shall supply all mounting hardware required for a complete installation. The model type is Axis Q-6000-E MKII, or approved equivalent.

The camera shall:
1. Be both IP66 and NEMA 4X-rated
2. Start-up and operate between -30°C to +50°C (-2°F to +122°F)
3. Be equipped with a 10BASE-T/100BASE-TX Ethernet interface
4. Camera will be compatible with existing axis cameras mounted below
5. Be equipped with a 2 megapixel Progressive scan RGB CMOS 4 x 1/2.8"sensor
6. Camera will be equipped with 4 fixed lenses with 4 90°
7. Provide video streams at full frame rate (30/25 fps) in HDTV 1080p (1920x1080) resolution in compliance with SMPTE 274M standard
8. Support Multiple individually configurable streams in H.264 and Motion JPEG
9. Accept static IP addresses as well as addresses provided by a DHCP
10. Support both IPv4 and IPv6 based addresses
11. Provide text overlay that includes date/time support synchronized with an NTP server, and the ability to apply a graphical image as an overlay into the video image
12. Provide multiple user password levels, support for HTTPS and SSL/TLS and incorporate IEEE 802.1X authentication
13. Be equipped with a built-in web server
14. Be supported by an open and published API
15. Be conformant to the network video standard as defined by the ONVIF organization

METHOD OF MEASUREMENT:
Item "4-VIEW IP POE NETWORK CAMERA" will be measured by "EACH" unit actually installed in accordance with the Contract Documents and/or as directed by the Engineer.

BASIS OF PAYMENT:
The accepted quantity of Item "4- VIEW IP POE NETWORK CAMERA" 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 hardware, components, software, installation and testing, as well as all labor, additional materials, tools and equipment, and all other incidentals (including cabling) 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
T12.9905
VIDEO MANAGEMENT PROCESSOR

DESCRIPTION:

Contractor acquisition of the Video Management Processor shall include all hardware, software, and cabling required to make a complete system. The Video Management Processor shall meet the recommended hardware guidelines of the video systems configuration software. The Video Management Processor shall be fully compatible with the Video Management System, shall be a furnished and installed utilizing a Rail installation kit with cable management trays. Contractor shall supply the compatible Rail Assembly Kit, with cable management trays, for a 19" rack setup. All cabling connections to the Video Management Processor shall be routed through integrated cable management trays and secured via Velcro cable ties. The Video Management Processor shall meet, or exceed, the following capabilities:

MATERIALS:

1. Hardware: HP DL380p G9 or equivalent
    - 1.1 CPU Processor: (Quantity 2) Xeon E5-2667 v4, 8-Core or greater
    - 1.2 Speed: 2.1 GHz greater
    - 1.3 RAM: 128GB (per processor) DDR4-2400 CAS 17-17-17 Registered Memory or greater
    - 1.4 Primary Hard Drive(s)
        - 1.4.1 (Quantity 2) 120 GB SFF SC SSD or greater at RAID 1
        - 1.4.2 SATA Solid State Drive 6G 2.5 inch
    - 1.5 Storage Controller: HP Smart Array P440ar/2GB FBWC 12GB 2 Port SAS
    - 1.6 Network Adapter: 4GbE Onboard NIC
    - 1.7 Additional Network Adapter: (Quantity 2) 1Gb 4-Port 366T Adapter
    - 1.8 Storage Adapter: (Quantity 2) HPE SN1200E 16GB 1p FC Host Bus Adapter
    - 1.9 High Performance Fan Kit
    - 1.10 DVD-ROM Drive, Internal, SATA
    - 1.11 Power Supply: (Quantity 2) 500W power supplies
    - 1.12 HP DL380 Secondary Riser
    - 1.13 Rail Kit: 2U Small Form Factor Ball Bearing Rail Kit
    - 1.14 Case: 2U rack mount

2 Operating System: Microsoft Windows Server 2016 (16-Core) Standard Edition (Not Pre-installed)
    - 2.1 Provide upon delivery

3 Installation
    - 3.1 The Contractor shall furnish the Video Management Processor to the TMC

4 Submittals
    - 4.1 Manufacturers catalog cut sheets and specifications for all equipment and accessories provided.

METHOD OF MEASUREMENT:

Item "VIDEO MANAGEMENT PROCESSOR" will be measured by "EACH" unit actually installed in accordance with the Contract Documents and/or as directed by the Engineer.

BASIS OF PAYMENT:

The accepted quantities of Item “VIDEO MANAGEMENT PROCESSOR” 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 hardware, components, software, installation and testing, as well as all labor, additional materials, tools and equipment, and all other incidentals (including cabling) 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
T12.9906
DUAL DISPLAY VIDEO PROCESSOR

DESCRIPTION:

Contractor acquisition of Dual Video Card Display Processor shall include all hardware, software, and cabling required to make a complete system. The Dual Video Card Display Processor shall meet the recommended hardware guidelines of the video systems configuration software. The Dual Video Card Display Processor shall be fully compatible with the Video Management System, shall be installed in locations as directed by the TMC Manager, and shall be installed utilizing a Rail installation kit with cable management trays. Contractor shall supply the compatible Rail Assembly Kit, with cable management trays, for a 19" rack setup. All cabling connections to the Dual Video Card Display Processor shall be routed through integrated cable management trays and secured via Velcro cable ties. The Dual Video Card Display Processor shall meet, or exceed, the following capabilities:

MATERIALS:

1. Hardware: HP DL360
   - 1.1 CPU Processor: Xeon E5-2630 v3, 8-Core Intel or equivalent
   - 1.2 Speed: 2.4 GHz or greater
   - 1.3 RAM: 32 Gb or greater DDR4-2133 Dual Ranked Registered Memory or greater
   - 1.4 Primary Hard Drive
     - 1.4.1 (Quantity 2) 300 GB SSD or greater at RAID 1
     - 1.4.2 SATA Solid State Drive 6G 2.5 inch
   - 1.5 Secondary Hard Drive
     - 1.5.1 (Quantity 2) 600 GB SAS
     - 1.5.2 SAS 6G 10k 2.5 inch
   - 1.6 Storage Controller: H240 12Gb 2-port Int FIO Smart Host Bus Adapter
   - 1.7 Network Adapter: 4GbE Onboard NIC
   - 1.8 High Performance Fan Kit
   - 1.9 DVD-ROM Drive, Internal, SATA
   - 1.10 Power Supply: (Quantity 2) 500W power supplies
   - 1.11 Rail Kit: 2U Small Form Factor Ball Bearing Rail Kit
   - 1.12 Case: 2U rack mount
   - 1.13 VGA Graphics Adapter (Quantity 2)
     - 1.13.1 Type: NVIDIA Quadro P2000 PCIE 5Gb, or equivalent
     - 1.13.2 Memory: 5Gb GDDR5 or greater
     - 1.13.3 Host Interface: PCI Express 3.0 x16
     - 1.13.4 Minimum Resolution: 2560 x 1600 or greater
     - 1.13.5 Display Connectors: 4
2. Operating System: Microsoft Windows Server 2016 (8 Core) Standard Edition (Not Pre-installed)
   - 2.1 Upon delivery provide proof of purchase and product key for all licensing
3. Installation
   - 3.1 The Contractor shall furnish the Video Display Processor to the TMC

4 Submittal

4.1 Manufacturers catalog cut sheets and specifications for all equipment and accessories provided.

METHOD OF MEASUREMENT:

Item “DUAL DISPLAY VIDEO PROCESSOR” will be measured by “EACH” unit actually installed in accordance with the Contract Documents and/or as directed by the Engineer.

BASIS OF PAYMENT:

The accepted quantities of Item “DUAL DISPLAY VIDEO PROCESSOR” 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 hardware, components, software, installation and testing, as well as all labor, additional materials, tools and equipment, and all other incidentals (including cabling) 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
T12.9907
48-PORT NETWORK SWITCH

MATERIALS:

1. Cisco Catalyst 3850 LAN Base Switch or equivalent
   - 1.1 1000 Mbps Port(s): 48 x 10/100/1000Base-T (RJ-45)
   - 1.2 Additional Network Module(s): 4 SFP & 4 SFP+ ports, NM-4-10G
   - 1.3 Console Port(s): RJ-45
   - 1.4 Rack mountable
   - 1.5 Dual redundant AC power supplies and fans
   - 1.6 DRAM: 4 Gb
   - 1.7 Flash: 2 Gb
   - 1.8 Switch Fabric Capacity: 176 Gbps
   - 1.9 Forwarding rate: 130.95 Mbps
   - 1.10 VLANS: 1001
   - 1.11 LAN Standards: IEEE 802.1d Spanning Tree Bridge, IEEE 802.3 CSMA/CD or Ethernet, IEEE 802.3u 100 Mbps (Fast Ethernet), IEEE 802.3ab 1000 Mbps (Gigabit Ethernet), IEEE 802.3ad Link aggregation, IEEE 802.3z Gigabit Ethernet over fiber standard (1000BaseX), IEEE 802.1w Rapid Spanning Tree Protocol (RSTP), IEEE 802.3x Flow Control, IEEE 802.1Q (VLANS), IEEE 802.1p (Priority)
   - 1.12 Management Protocols: SNMPv1, SNMPv2c & SNMPv3, RMON I & RMON II, Telnet
   - 1.13 Protocols: IGMPv2, RADIUS, SSH, TCP, UDP, DHCP, PIM
   - 1.14 Routing Protocols: OSFP, RIP Version 1, RIP Version 2, BGPv4, IGRP, EIGRP, DVMRP, Static Routing
   - 1.15 Ethernet Switch must be capable of remote management with Cisco Network Management Software and shall be fully managed by CiscoView and CiscoWorks
   - 1.16 Installation: The contractor shall furnish only the Ethernet Switch to the TMC
   - 1.17 Warranty: The contractor shall provide a 3-year warranty on all parts and equipment provided
   - 1.18 Submittals: Manufacturers catalog cut sheets and specifications for all equipment and accessories provided

METHOD OF MEASUREMENT:

Item “48-PORT NETWORK SWITCH” will be measured by “EACH” unit actually installed in accordance with the Contract Documents and/or as directed by the Engineer.

BASIS OF PAYMENT:

The accepted quantities of Item “48-PORT NETWORK SWITCH” 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 hardware, components, software, installation and testing, as well as all labor, additional materials, tools and equipment, and all other incidentals (including cabling) 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
T12.9908
48-PORT CORE NETWORK SWITCH

MATERIALS:

1. Cisco Catalyst 3850 IP Base switch or Equivalent
   - 1.1 1000 Mbps Port(s): 48 x 10/100/1000Base-T (RJ-45)
   - 1.2 Additional Network Module(s): 4 SFP & 4 SFP+ ports, NM-4-10G
   - 1.3 Console Port(s): RJ-45
   - 1.4 Rack mountable
   - 1.5 DRAM: 4 Gb
   - 1.6 Flash: 2 Gb
   - 1.7 Dual redundant power supplies and fans
   - 1.8 Switch Fabric Capacity: 176 Gbps
   - 1.9 Forwarding rate: 130.95 Mbps
   - 1.10 VLANS: 4000
   - 1.11 LAN Standards: IEEE 802.1d Spanning Tree Bridge, IEEE 802.1AE MACsec, IEEE 802.3 CSMA/CD or Ethernet, IEEE 802.3u 100 Mbps (Fast Ethernet), IEEE 802.3ab 1000 Mbps (Gigabit Ethernet), IEEE 802.3ad Link aggregation, IEEE 802.3z Gigabit Ethernet over fiber standard (1000BaseX), IEEE 802.1w Rapid Spanning Tree Protocol (RSTP), IEEE 802.3x Flow Control, IEEE 802.1Q (VLANS), IEEE 802.1p (Priority)
   - 1.12 IP BASE: Base Feature Set
   - 1.13 Management Protocols: SNMPv1, SNMPv2c & SNMPv3, RMON I & RMON II, Telnet
   - 1.14 Protocols: IGMPv2, RADIUS, SSH, TCP, UDP, DHCP, PIM
   - 1.15 Routing Protocols: OSFP, RIP Version 1, RIP Version 2, BGPv4, IGRP, EIGRP, DVMRP, Static Routing
   - 1.16 Ethernet Switch must support StackWise Plus technology, must be capable of remote management with Cisco Network Management Software, and shall be fully managed by CiscoView and CiscoWorks
   - 1.17 Installation: The contractor shall furnish only the Hardened Fiber Ethernet Switch to the TMC
   - 1.18 Warranty: The contractor shall provide a 3 year warranty on all parts and equipment provided
   - 1.19 Submittals: Manufacturers catalog cut sheets and specifications for all equipment and accessories provided

METHOD OF MEASUREMENT:

Item “48-PORT CORE NETWORK SWITCH” will be measured by “EACH” unit installed in accordance with the Contract Documents and/or as directed by the Engineer.

BASIS OF PAYMENT:

The accepted quantities of Item “48-PORT CORE NETWORK SWITCH” 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 hardware, components, software, installation and testing, as well as all labor, additional materials, tools and equipment, and all other incidentals (including cabling) 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
T12.9909
55" LED LCD MONITOR

DESCRIPTION:

This item of work shall consist of furnishing and installing a commercial grade 55" LED LCD Monitors in landscape configuration. The Contractor shall mount the 55" LED LCD Monitors in place of existing Monitor. Video and images shall stream to the monitors from the Video Display System and be tested to ensure full functionality after instillation.

MATERIALS:

The materials for this work shall meet or exceed the following specifications:

1.0. 55" LED LCD Monitor:
1.1. The 55" LED LCD Monitor shall be Planar EP5550 or approved equivalent 1.2. The diagonal measurement of the screen shall be 55" with a 16:9 aspect ratio and a 1920 x 1080 resolution
1.2. The screen type shall meet or exceed the following requirements:
1.3. The typical brightness shall be 700 cd/m2
1.4. The typical full field contrast ratio shall be 4000:1
1.5. The maximum power consumption shall be 165Watts, and shall take power input from 100-240 VAC at 50 or 60 hertz
1.6. The typical response time shall be 6.5ms
1.7. The full viewing angle shall be 178° degrees
1.8. Shall have a ambient light sensor for auto brightness control
1.9. The 55" LED LCD Monitor shall have an edge lit LED backlight with a minimum life of 50,000 hours
1.10. The 55" LED LCD Monitor shall have an operating temperature range of 5° – 35° degrees Celsius, and an operating humidity of 20-80% non-condensing
1.11. The 55" LED LCD Monitor shall weigh approximately 85 lbs
1.12. The 55" LED LCD Monitor shall have DVI, HDMI, Component Video inputs
1.13. The 55" LED LCD Monitor shall be controllable via RS-232
1.14. The 55" LED LCD Monitor shall have a bezel of 18mm or (0.7")
1.15. Dimensions shall not exceed 50" x 28.5" x 2.5"
1.16. The 55" LED LCD Monitor shall be mounted to a VESA 400mm x 400mm monitor bracket wall mount described in these Specifications
1.17. The 55" LED LCD Monitor shall include a minimum three-year warranty on parts, Labor and backlight.

SUBMITTALS:

The contractor shall submit product data sheets for the materials provided in this item.

METHOD OF MEASUREMENT:

Item "55" LED LCD MONITOR" shall be measured for payment by the unit for installation and acceptance of the new 55" LED LCD Monitor as described herein, to be installed as directed by the TMC.

BASIS OF PAYMENT:

The accepted quantities of Item “55” LED LCD MONITOR” 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 hardware, components, software, installation and testing, as well as all labor, additional materials, tools and equipment, and all other incidentals (including cabling) 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
T12.9910
8-PORT 1 GB ETHERNET SWITCH

DESCRIPTION :
The Contractor shall furnish and install an 8- Port Gigabit Ethernet Switch. The switch will be a Netgear ProSafe GS108E 8- Port Gigabit Ethernet switch.

MATERIALS:
The 1 Gigabit Ethernet Switch shall be a GS108E or approved equivalent.
The materials for this work shall meet or exceed the following specifications or features:
1. The switch shall be a desktop Mount and have an external power adapter
2. 8 10/100/1000 base-T RJ45 ports
3. Up to 2,000 Mbps of dedicated, non-blocking bandwidth per port
4. Simple network setup and plug-and-play connectivity
5. Flexible management via PC-based Utility Tool
6. Switch offers energy-saving features to reduce power consumption.
7. Fan less design so the switch runs quietly

METHOD OF MEASUREMENT:
Item "8-PORT 1GB ETHERNET SWITCH" shall be measured for payment by the unit "EACH" for furnishing, installation and acceptance of the new Ethernet Switch as described herein. Included in this "Each" will be the rack mount installation, to be installed as directed by the contract documents and the engineer.

BASIS OF PAYMENT:
"8-PORT 1GB ETHERNET SWITCH" shall be paid for at the contract unit price bid per "EACH", which price shall include furnishing, installing, connecting, and testing. The price shall also include furnishing all software, labor, tools, materials, equipment, storage, transportation and other incidentals necessary.

JOB SPECIFIC
T12.9911
HARDENED ETHERNET SWITCH WITH SFP FIBER OPTIC TRANSCEIVERS

DESCRIPTION:

This item of work shall consist of furnishing and installing a Hardened Ethernet Switch with included fiber optic Small Form-Factor Pluggable (SFP) transceivers. The Hardened Ethernet Switch shall accept both RJ-45 Ethernet connections as well as SFP fiber optic connections. The Hardened Ethernet Switch shall be installed within the field cabinet as shown on the Plans.

MATERIALS:

The materials for this item shall conform to the following requirements:

1. The Hardened Ethernet Switch specified herein shall be a self-contained unit capable of 24-hour per day unattended operation. The Hardened Ethernet Switch shall be supplied, assembled and tested by the Contractor. The Hardened Ethernet Switch shall be of rugged design and suitable for reliable operation when mounted in the configuration as specified in the Contract Documents. The Hardened Ethernet Switch shall be configured for minimum maintenance and need for adjustment after initial set-up. The Hardened Ethernet Switch shall include all software required for status monitoring and updating from a computer within the Rhode Island Department of Transportation.
2. Hardened Ethernet Switch General Requirements:
   - 2.1.1. Each shall be a temperature hardened industrial grade Ethernet switch designed to operate in unconditioned, outdoor traffic control cabinets.
   - 2.1.2. Each shall support Jumbo Frames up to 9,216 byte frame size.
   - 2.1.3. Each shall be supplied with two (2) 1000LX SFP GBIC transceivers.
3. The Hardened Ethernet Switch shall have the following connections:
   - 3.1. Eight (8) auto-sensing RJ-45 Ethernet ports that shall support the following network standards:
     - 3.1.1. IEEE.802.1D MAC Bridges
     - 3.1.2. IEEE.802.3 10 Base-T
     - 3.1.3. IEEE.802.3u 100 Base-T
     - 3.1.4. IEEE.802.1d Spanning Tree
     - 3.1.5. IEEE.802.1w Rapid Spanning Tree
     - 3.1.6. IEEE.802.1q VLAN
     - 3.1.7. IEEE.802.1p Quality of Service
     - 3.1.8. IEEE 802.af Power over Ethernet (POE)
     - 3.1.9. IEEE 802.3x Flow Control
     - 3.1.10. RFC 951 BOOTP
     - 3.1.11. RFC 2030 Simple Network Time Protocol (SNMP) v4
     - 3.1.12. RFC 2131 DHCP
   - 3.2. Two open 10/100/1000 SFP slots each containing one 1000LX Mini-GBIC transceivers that shall support the following network standards:
     - 3.2.1. IEEE.802.3u 100 Base-FX
     - 3.2.2. IEEE.802.3ab 1000 Base-FX
     - 3.2.3. IEEE.802.1d Spanning Tree
     - 3.2.4. IEEE.802.1w Rapid Spanning Tree

3.2.5.IEEE.802.1q VLAN
3.2.6.IEEE.802.1p Quality of Service

4. The Mini-GBIC transceivers shall meet the following optical requirements:
   4.1. The Mini-GBIC transceivers shall have an operating distance of no less than 10 Km
   4.2. The Mini-GBIC transceivers shall have an operating wavelength of 1310 nm, single mode
   4.3. The Mini-GBIC transceivers shall each have a minimum optical power budget of 19dB, and shall transmit Gigabit Ethernet signals over a minimum fiber optic cable distance of 25km
5. The Hardened Ethernet Switch shall be an Ethernet layer 2 device
6. The Hardened Ethernet Switch shall have a switching method of store and forward
7. The Hardened Ethernet Switch shall support the following protocols:
   7.1. RTP/ID
   7.2. TCP/IP with full multicast support
   7.3. RFC 3376 IGMPv3 IP Multicast
   7.4. RFC 1591 DNS (client)
   7.5. HTML and Telnet management
   7.6. RFC 2131 DHCP
   7.7. IEEE 802.1X Port Based Network Access Control
   7.8. RFC 1492 TACACS+
   7.9. Secure Sockets Layer (SSL)
   7.10. SSHv1SSHv2 Secure Shell
8. The Hardened Ethernet Switch shall support the following network management protocols:
   8.1. SNMP v1, V2c, v3
   8.2. RFC 2819 Four groups of RMON: 1 (statistics), 2 (history), 3 (alarm) and 9 (events)
   8.3. HTTP graphical web-based
   8.4. RFC 854 Telnet
   8.5. Command Line Interface
9. The Hardened Ethernet Switch shall have an operational temperature range of -40°F to +140°F (-40°C to +60°C)
10. The Hardened Ethernet Switch shall have an operational power input range of 100 to 140 VAC.

METHOD OF MEASUREMENT:

"FURNISH AND INSTALL HARDENED ETHERNET SWITCH WITH FIBER OPTIC TRANSCEIVERS" shall be measured for payment by the unit "EACH" for each unit installed and accepted.

BASIS OF PAYMENT:

"FURNISH AND INSTALL HARDENED ETHERNET SWITCH WITH FIBER OPTIC TRANSCEIVERS" shall be paid for at the contract unit price bid per "EACH", which price shall include full compensation for all materials, equipment, tools, testing, labor, and work incidental thereto complete in place and accepted by the Engineer.

JOB SPECIFIC
T12.9912
INTERLINK PLANAR REPLACEMENT MONITOR

DESCRIPTION:
This item of work shall consist of furnishing, and installing a commercial grade 46” LCD Monitors in existing configuration. The Contractor shall mount the 46” LCD Monitor in place of existing Monitor. Video and images shall stream to the monitors from the Video Display System, and be tested to ensure full functionality after instillation.

MATERIALS:
The materials for this work shall meet or exceed the following specifications:
1.0. Matrix MX46-L ERO LCD Panel with interface board or approved equivalent
1.1. The diagonal measurement of the screen shall be 46” with a 1366 x 768 resolution
1.2. The screen type shall meet or exceed the following requirements:
1.3. The typical brightness shall be 700 cd/m2
1.4. The typical full field contrast ratio shall be 3000:1
1.5. The typical response time shall be 8ms
1.6. The Monitor shall be mounted to exiting wall mount and work seamlessly with existing monitors already install
1.7 The Monitor shall include a minimum three-year warranty on parts, labor, and backlight

SUBMITTALS:
The contractor shall submit product data sheets for the materials provided in this item.

METHOD OF MEASUREMENT:
Item “INTERLINK PLANAR REPLACEMENT MONITOR” shall be measured for payment by “EACH” for installation and acceptance of the new LCD Monitor as described herein, to be installed as directed by the TMC.

BASIS OF PAYMENT:
““INTERLINK PLANAR REPLACEMENT MONITOR”” shall be paid for at the contract unit price bid per "EACH", which price shall include full compensation for all materials, equipment, tools, testing, labor, and work incidental thereto complete in place and accepted by the Engineer

JOB SPECIFIC
T12.9913
21.5" FULL HD LED MONITOR DISPLAY WITH INTEGRATED SPEAKERS

DESCRIPTION:
This item of work shall consist of furnishing a 21.5" Full HD LED Monitor Display with Integrated Speakers. The Contractor shall deliver the Monitor to the TMC.

MATERIALS:
The materials for this work shall meet or exceed the following specifications:
1.0. 21.5" HD LED Monitor with integrated speakers or approved equivalent
1.1. The diagonal measurement of the viewing screen shall be a minimum of 12.5 " with a 1920 x 1080 Full HD resolution
1.2. The screen type shall meet or exceed the following requirements:
1.2.1. The typical brightness shall be 250 cd/m2
1.2.2. The typical response time shall be 5ms
1.3. The monitor shall be a LED-Backlight LCD Panel
1.4. The Monitor shall have the following outputs
1.4.1. HDMI
1.4.2. Display Port
1.4.3. DVI
1.5. The Monitor shall include a minimum three-year warranty on parts, labor, and backlight
1.6. Monitor will have integrated speakers with audio input

SUBMITTALS:
The contractor shall submit product data sheets for the materials provided in this item.

METHOD OF MEASUREMENT:
Item "21.5" FULL HD LED MONITOR DISPLAY WITH INTEGRATED SPEAKERS" shall be measured for payment by the unit "EACH" for installation and acceptance of the new LCD Monitor as described herein, to be installed as directed by the TMC.

BASIS OF PAYMENT:
"21.5" FULL HD LED MONIOR DISPLAY WITH INTEGRATED SPEAKERS" shall be paid for at the contract unit price bid per "EACH", which price shall include full compensation for all materials, equipment, tools, testing, labor, and work incidental thereto complete in place and accepted by the Engineer

JOB SPECIFIC
T12.9914
65' BUCKET TRUCK FOR CAMERA INSTALLATION ABOVE 30'

DESCRIPTION:
This item specifies the requirements for a 65' bucket truck required for the maintenance and repair of the systems covered under this contract. Under this item, the Contractor will be paid for the truck utilization time from arrival at the site to departure from the site. The Contractor will not be paid for travel time to the site or from the site.

CONSTRUCTION METHODS:
The Contractor shall provide a 65' bucket truck and an Operator able preform camera instillations in said bucket truck. The Contractor is required to provide Maintenance and Protection of Traffic as required at the site, but said Maintenance and Protection of Traffic will be paid for under a separate bid item and is not included in this bid item for Flatbed Truck with Lift and Operator.

METHOD OF MEASUREMENT:
"65' BUCKET TRUCK FOR CAMERA INSTILLATION ABOVE 30'" shall be measured for payment by the unit "HOURS" complete and accepted, and shall be measured from the time of arrival at the pickup site to the time of departure from the drop-off site.

BASIS OF PAYMENT:
"65' BUCKET TRUCK FOR CAMERA INSTILLATION ABOVE 30'" will be paid for at the contract unit price bid for "HOURS", which price shall include all necessary equipment required to move equipment, labor, tools, and work there to complete in place and accepted by the TMC. Maintenance and Protection of Traffic shall be paid separately during these activities under the item for the type of MOT required.

JOB SPECIFIC
T12.9915
REPLACEMENT 24/7 SPOT MONITOR

DESCRIPTION:

This item of work shall consist of furnishing, and installing a commercial grade 24/7 operation 43" LCD Spot Monitor. The Contractor shall mount the 43" LCD Monitor as directed by the TMC. Video and images shall stream to the monitors from the Video Display System, and be tested to ensure full functionality after instillation.

MATERIALS:

The materials for this work shall meet or exceed the following specifications:

1.0. 43" 24/7 LCD Monitor
1.1. The diagonal measurement of the screen shall be 43" with a 1920 x 1080 resolution.
1.2. Monitor shall be capable of 24/7 uninterrupted viewing
1.3. The screen type shall meet or exceed the following requirements:
    1.3.1. The typical brightness shall be 500 cd/m2
    1.3.2. The typical full field contrast ratio shall be 3000:1
    1.3.3. The typical response time shall be 8ms
1.4. Monitor shall have HDMI ports capable of CEC or control of the monitor through the HDMI port
1.5. The Monitor shall be mounted to the wall using appropriate mounting brackets for the location that are strong enough to support he weight of the proposed monitor
1.6. The Monitor shall include a minimum three-year warranty on parts, labor, and backlight

SUBMITTALS:

The contractor shall submit product data sheets for the materials provided in this item.

METHOD OF MEASUREMENT:

Item "REPLACEMENT 24/7 SPOT MONITOR" shall be measured for payment by the unit "EACH" for installation and acceptance of the new LCD Monitor as described herein, to be installed as directed by the TMC.

BASIS OF PAYMENT:

"REPLACEMENT 24/7 SPOT MONITOR" shall be paid for at the contract unit price bid per "EACH", which price shall include full compensation for all materials, equipment, tools, testing, labor, and work incidental thereto complete in place and accepted by the Engineer

JOB SPECIFIC
T12.9916
OUTDOOR BULLET CAMERA

DESCRIPTION:

An Outdoor Bullet Camera shall include all hardware, software, and cabling required to make a complete system. The camera shall meet the minimum recommended hardware guidelines as outlined below, and be fully compatible with the TMC's Video Management System. Cameras shall be installed in locations as directed by the TMC Manager, and utilizing the manufacturer's recommended installation procedures. Contractor shall supply all mounting hardware required for a complete installation. The model type is Axis P1447-LE, or approved equivalent.

The camera shall:

1. Be manufactured with a Polycarbonate and aluminum blend
2. Be both IP66/IP67 and NEMA 4X-rated, and operate between -40°C to +60°C (-40°F to +140°F)
3. Be equipped with a 10BASE-T/100BASE-TX Ethernet interface
4. Will be provided Power over Ethernet between 6.7W and 12.95 W
5. Be equipped with a progressive scan sensor, and provide images down to 0.15 lux in color and 0.03 lux in black and white
6. Be equipped with digital PTZ
7. Provide at an resolutions up to 3072x1728 pixels at 25/30 frames per second
8. Support Multiple, individually configurable streams in H.264 and Motion JPEG
9. Accept static IP addresses as well as addresses provided by a DHCP
10. Support both IPv4 and IPv6 based addresses
11. Have IR illumination up to a typical 30 m or 95 ft
12. Provide multiple user password levels, support for HTTPS and SSL/TLS and incorporate IEEE 802.1X authentication
13. Be supported by an open and published API
14. Be equipped with a built-in web server

METHOD OF MEASUREMENT:

Item "OUTDOOR BULLET CAMERA" will be measured by "EACH" unit actually installed in accordance with the Contract Documents and/or as directed by the Engineer.

BASIS OF PAYMENT:

The accepted quantity of Item "OUTDOOR BULLET CAMERA" 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 hardware, components, software, installation and testing, as well as all labor, additional materials, tools and equipment, and all other incidentals (including cabling) 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
T12.9917
OUTDOOR DOME CAMERA
T12.9918
INDOOR DOME CAMERA

DESCRIPTION:

An Outdoor Dome Camera shall include all hardware, software, and cabling required to make a complete system. The camera shall meet the minimum recommended hardware guidelines as outlined below, and be fully compatible with the TMC's Video Management System. Cameras shall be installed in locations as directed by the TMC Manager, and utilizing the manufacturer's recommended installation procedures. Contractor shall supply all mounting hardware required for a complete installation. The model type is Axis P3367-VE, or approved equivalent.

An Indoor Dome Camera shall include all hardware, software, and cabling required to make a complete system. The camera shall meet the minimum recommended hardware guidelines as outlined below, and be fully compatible with the TMC's Video Management System. Cameras shall be installed in locations as directed by the TMC Manager, and utilizing the manufacturer's recommended installation procedures. Contractor shall supply all mounting hardware required for a complete installation. The model type is Axis P3367-V, or approved equivalent

Materials:

1. **The Outdoor Dome camera shall:**
   - 1.1. Be manufactured with a Polycarbonate and aluminum blend
   - 1.2. Be both IP66 and NEMA 4X-rated, and operate between -40°C to +55°C (-40°F to +131°F)
   - 1.3. Be equipped with a 10BASE-T/100BASE-TX Ethernet interface
   - 1.4. Will be provided Power over Ethernet between MAX 12.1 W
   - 1.5. Include both motion detection and audio detection capabilities on the camera
   - 1.6. Be equipped with digital PTZ
   - 1.7. Provide resolutions up to 2592x1944 pixels at up to 30 frames per second
   - 1.8. Support Multiple, individually configurable streams in H.264 and Motion JPEG
   - 1.9. Accept static IP addresses as well as addresses provided by a DHCP
   - 1.10. Support both IPv4 and IPv6 based addresses
   - 1.11. Provide multiple user password levels, support for HTTPS and SSL/TLS and incorporate IEEE 802.1X authentication
   - 1.12. Be supported by an open and published API
   - 1.13. Be equipped with a built-in web server

2. **The Indoor Dome camera shall:**
   - 2.1. Be manufactured with a Polycarbonate and aluminum blend
   - 2.2. Be equipped with a 10BASE-T/100BASE-TX Ethernet interface
   - 2.3. Will be provided Power over Ethernet between MAX 6.2 W
   - 2.4. Include both motion detection and audio detection capabilities on the camera
   - 2.5. Be equipped with digital PTZ

2.6. Provide resolutions up to 2592x1944 pixels at up to 30 frames per second
2.7. Support Multiple, individually configurable streams in H.264 and Motion JPEG
2.8. Accept static IP addresses as well as addresses provided by a DHCP
2.9. Support both IPv4 and IPv6 based addresses
2.10. Provide multiple user password levels, support for HTTPS and SSL/TLS and incorporate IEEE 802.1X authentication
2.11. Be supported by an open and published API
2.12. Be equipped with a built-in web server

METHOD OF MEASUREMENT:

Item "OUTDOOR DOME CAMERA" and "INDOOR DOME CAMERA" will be measured by "EACH" unit installed in accordance with the Contract Documents and/or as directed by the Engineer.

BASIS OF PAYMENT:

The accepted quantity of Item "OUTDOOR DOME CAMERA" and "INDOOR DOME CAMERA" 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 hardware, components, software, installation and testing, as well as all labor, additional materials, tools and equipment, and all other incidentals (including cabling) 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
T12.9919
LOWERING DEVICE REFURBISHMENT

DESCRIPTION:

This work shall consist of Refurbishing an existing analog camera lowering device to be an IP Lowering Device. Components must be fully compatible with the existing pole. IP Lowering device pickup will be coordinated with TMC and Deliver of newly refurbished Lowering devices will be coordinated with Installers. Lowering device refurbishment will be done by the manufacturer of the lowering device and refurbished lowering device will support IP camera after refurbishment.

MATERIALS:

1. IP CAMERA LOWERING SYSTEM:
   1.1. The IP camera lowering system shall be designed to support and lower an IP driven closed circuit television camera, lens, housing, PTZ mechanism, cabling, connectors and other supporting field components without damage or causing degradation of camera operations. 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.
   1.2. The IP 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.
   1.3. 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.
2. SUSPENSION CONTACT UNIT:
   2.1. 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.
   2.2. 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 1-1/4” 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 access panel. 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.

2.3. 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 certified to a minimum of CAT5 100 Base T requirements.

2.4. Each male contact and female contact shall be individually soldered to its respective wire.

2.5. 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.

2.6. 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.

2.7. All electrical 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.

2.8. 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. The corrosion resistance materials shall be as per manufacturer’s specifications and procedures.

METHOD OF MEASUREMENT:

Item “LOWERING DEVICE REFURBISHMENT” will be measured for payment by “EACH” unit installed in place and accepted.

BASIS OF PAYMENT:

The accepted quantity of "“LOWERING DEVICE REFURBISHMENT”” will be paid for at its respective contract unit price per "EACH", which shall constitute full and complete compensation for all labor, materials, tools, equipment, and all other incidentals required to complete the work as described herein and elsewhere in the contract, complete in place and accepted.

JOB SPECIFIC

T12.9920

WIRELESS BASE FLUID MESH TRANSCEIVER FOR RICHMOND WELCOME CENTER

DESCRIPTION:

Work performed under this item shall consist of furnishing, installing, demonstrating, and testing a Wireless Base Transceiver. Installation shall include the Wireless Transceiver, mounting brackets/hardware, and any necessary cabling required to connect the Wireless Transceiver.

1. The Wireless Base Transceiver shall be designed for backhauling mission-critical video, data, and voice. It shall be capable of transmitting, receiving and forwarding IP packets through the optimal path in real time. The wireless base transceiver shall perform a continuous analysis of the bandwidth available on every wireless link. The wireless unit shall be able to detect increases and decreases in link quality in real time, routing packets around low-quality links and sources of interference. The wireless transceiver shall not route packets by minimizing the number of hops in the path but it shall pick the path that provides the lowest latency, highest bandwidth, and lowest error rates
2. The Wireless Base Transceiver shall have the ability to limit its Ethernet port capacity in order to allow the user to purchase only the amount of bandwidth required. Additional throughput shall be enabled by upgrading the transceiver with software plug-ins in case the bandwidth requirements increase over time.
   2.1. The Wireless Base Transceiver shall include a plug-in with a minimum bandwidth throughput of 50Mbps

MATERIALS:

3. The Wireless Base Transceiver shall meet or exceed the following requirements.
   3.1. The wireless base transceiver shall be compliant with the following technical specifications
      3.1.1.2x2 MIMO technology with modulation speed up to 300Mbps
         3.1.1.1. Throughput: maximum 150Mbp at 1 Mile
         3.1.1.2. Horizontal Beamwidth: 120 degrees
         3.1.1.3. Veritical Beamwidth: 10 degrees
      3.1.2.Frequency range: 3.350 – 3.700GHz and 5.170 - 5.850GHz
      3.1.3.OFDM modulation (BPSK, QPSK, 16-QAM, 64-QAM)
      3.1.4.Integrated products should use patch or sector antenna with gain between 14.6 and 17.1dB
      3.1.5.Connectorized product should use 2x RP-SMA or 2xQMA connectors
      3.1.6.Cabling Type: One (1) or more Ethernet 10base-T, Ethernet 100base-Tx, Ethernet 1000base-T. Data Link Protocol: Ethernet, Fast Ethernet, Gigabit Ethernet
      3.1.7.Channel width: 5/10/20/40 MHz
      3.1.8.Transmission power: up to 27dBm
      3.1.9.IP66 classified enclosure or higher
      3.1.10. Operating temperature of -30C to + 75C
      3.1.11. Power Input: 48V Active 802.3af PoE / 48V Passive PoE
      3.1.12. Power consumption: maximum 8W

   3.2. The Wireless Base Transceiver shall support the following network protocols.
      3.2.1.UDP, TCP, IP, RTP, RTCP, HTTP, HTTPS, ICMP, ARP

3.3. The Wireless Base Transceiver shall be able to support point-to-point, point-to-multipoint, mesh and hybrid network topologies
3.4. The Wireless Base Transceiver shall be able to support both centralized polling-based and distributed CSMA/CA-based Medium Access Control (MAC) protocols in order to create point-to-point, point-to-multipoint, and mesh architectures
3.5. The Wireless Base Transceiver shall implement an automatic medium access control algorithm that detects the network topology and enables polling-based MAC or CSMA-based MAC.
3.6. The Wireless Base Transceiver shall run on a serverless architecture and shall have a web-based interface for remote management
3.7. The Wireless Base Transceiver shall be remotely manageable through a password protected HTTPS web-interference and an SSH command line interface. Both interfaces are accessible locally at the unit, and remotely over the network. Both interfaces shall support multiple user access levels, including view, user, and administrator modes
3.8. All setting changes and updates to a device shall be applied locally at the unit, or remotely over the network. Standard configuration files might be saved from and uploaded to any device.
3.9. It shall be possible to upgrade firmware on a wireless transceiver locally or over the air (OTA) using a secure HTTPS connection, and firmware updates must pass a local checksum on the target unit to prevent corrupted firmware upgrades
3.10. The wireless network shall be monitored via a web-based management interface.
3.11. The Wireless Base Transceiver shall store up to 30 days history of the main network parameters: signal strength, modulation speed, throughput, packet error rate and link error rate
3.12. The Wireless Base Transceiver interface shall provide a built-in spectrum analyzer to scan the frequency spectrum and identify possible source of interference
3.13. The Wireless Base Transceiver interface shall provide a real time bandwidth monitoring too.
3.14. The Wireless Base Transceiver shall fully support 802.1Q VLAN tagging. It shall support hybrid port-based and MAC-based VLAN tagging
3.15. The Wireless Base Transceiver shall not be visible to standard 802.11-enabled devices.
3.16. The Wireless Base Transceiver shall support the Prodigy transmission protocol. It shall prioritize PTZ control packets over video packets to minimize latency and shall be able to transmit IP packets, such as MPEG4 I-frame vs. MPEG-4 P-frame, in different ways, providing different levels of reliability and priority
3.17. The Wireless Base Transceiver shall provide at least one additional Ethernet port to interconnect any Ethernet-based devices, such as IP cameras, video-servers, Wi-Fi Access Points, VoIP phones, etc
3.18. The Wireless Base Transceiver shall be able to route and forward multicast traffic
3.19. The Wireless Base Transceiver shall be shall be in compliance with the FIPS 197 directive and support 128-bit AES encryption at the link level.
3.20. The Wireless Base Transceiver shall embed a radio chip capable of performing AES 128 bit or AES 256 bit encryption in hardware
3.21. The Wireless Base Transceiver shall have a standard 2 years warranty in parts and labor and an additional warranty extension of 3 years

CONSTRUCTION METHODS:
The Wireless Base Transceiver shall be installed as shown on the plans, detail layouts, and manufacturer's recommendations. The Installation of the Wireless Transceiver shall be approved by the Engineer and the RIDOT TMC.

METHOD OF MEASUREMENT: Each "WIRELESS BASE TRANSCEIVER" will be measured for payment at the unit price "EACH" by the number of such units installed in accordance with the plans and/or as directed by the Engineer.

BASIS OF PAYMENT: The accepted quantities of "WIRELESS BASE TRANSCEIVER" will be paid for at their respective contract unit price per "EACH" such unit as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including all mounting hardware and brackets, for providing and installing said units and all other incidentals required to finish the work, complete and accepted by the Engineer.

JOB SPECIFIC

T12.9921

WIRELESS FLUID MESH TRANSCEIVER FOR RICHMOND WELCOME CENTER

DESCRIPTION: Work performed under this item shall consist of furnishing, installing, demonstrating, and testing a Wireless Transceiver. Installation shall include the Wireless Transceiver, mounting brackets/hardware, and any necessary cabling required to connect the Wireless Transceiver.

3. The Wireless Transceiver shall be designed for backhauling mission-critical video, data, and voice. It shall be capable of transmitting, receiving and forwarding IP packets through the optimal path in real time. The wireless transceiver shall perform a continuous analysis of the bandwidth available on every wireless link. The wireless unit shall be able to detect increases and decreases in link quality in real time, routing packets around low-quality links and sources of interference. The wireless transceiver shall not route packets by minimizing the number of hops in the path but it shall pick the path that provides the lowest latency, highest bandwidth, and lowest error rates
4. The Wireless Transceiver shall have the ability to limit its Ethernet port capacity in order to allow the user to purchase only the amount of bandwidth required. Additional throughput shall be enabled by upgrading the transceiver with software plug-ins in case the bandwidth requirements increase over time.
   4.1. The Wireless Transceiver shall include a plug-in with a minimum bandwidth throughput of 10Mbps

MATERIALS:

4. The Wireless Transceiver shall meet or exceed the following requirements.
   4.1. The wireless transceiver shall be compliant with the following technical specifications
      4.1.1.2x2 MIMO technology
         4.1.1.1. Throughput: maximum 100Mbp at 1 Mile
         4.1.1.2. Horizontal Beamwidth: Maximum 40 degrees
         4.1.1.3. Veritical Beamwidth: Maximum 27 degrees
      4.1.2.Frequency range: 4.940 – 4.990GHz and 5.170 - 5.850GHz.
      4.1.3.Integrated products should use patch or sector antenna with gain between 14.6 and 17.1dB
      4.1.4.Connectorized product should use 2x RP-SMA or 2xQMA connectors
      4.1.5.Cabling Type: One (1) or more Ethernet 10base-T, Ethernet 100base-Tx, Ethernet 1000base-T. Data Link Protocol: Ethernet, Fast Ethernet, Gigabit Ethernet
      4.1.6.Transmission power: up to 27dBm
      4.1.7.IP66 classified enclosure or higher
      4.1.8.Operating temperature of -30C to + 80C
      4.1.9.Power Input: passive PoE from 12V DC to 24V DC
      4.1.10. Power consumption: maximum 10 W
   4.2. The Wireless Transceiver shall support the following network protocols.
      4.2.1.UDP, TCP, IP, RTP, RTCP, HTTP, HTTPS, ICMP, ARP
   4.3. The wireless transceiver shall be able to support point-to-point, point-to-multipoint, mesh and hybrid network topologies.

4.4. The wireless transceiver shall be able to support both centralized polling-based and distributed CSMA/CA-based Medium Access Control (MAC) protocols in order to create point-to-point, point-to-multipoint, and mesh architectures
4.5. The wireless receiver shall implement an automatic medium access control algorithm that detects the network topology and enables polling-based MAC or CSMA-based MAC.
4.6. The wireless system shall run on a serverless architecture and shall have a web-based interface for remote management
4.7. The Wireless Transceiver shall be remotely manageable through a password protected HTTPS web-interference and an SSH command line interface. Both interfaces are accessible locally at the unit, and remotely over the network. Both interfaces shall support multiple user access levels, including view, user, and administrator modes
4.8. All setting changes and updates to a device shall be applied locally at the unit, or remotely over the network. Standard configuration files might be saved from and uploaded to any device.
4.9. It shall be possible to upgrade firmware on a wireless transceiver locally or over the air (OTA) using a secure HTTPS connection, and firmware updates must pass a local checksum on the target unit to prevent corrupted firmware upgrades
4.10. The wireless network shall be monitored via a web-based management interface.
4.11. The wireless system shall store up to 30 days history of the main network parameters: signal strength, modulation speed, throughput, packet error rate and link error rate
4.12. The wireless transceiver interface shall provide a built-in spectrum analyzer to scan the frequency spectrum and identify possible source of interference
4.13. The wireless transceiver interface shall provide a real time bandwidth monitoring too.
4.14. The wireless transceiver shall fully support 802.1Q VLAN tagging. It shall support hybrid port-based and MAC-based VLAN tagging
4.15. The wireless transceiver shall not be visible to standard 802.11-enabled devices.
4.16. The wireless transceiver shall support the Prodigy transmission protocol. It shall prioritize PTZ control packets over video packets to minimize latency and shall be able to transmit IP packets, such as MPEG4 I-frame vs. MPEG-4 P-frame, in different ways, providing different levels of reliability and priority
4.17. The wireless transceiver shall provide at least one additional Ethernet port to interconnect any Ethernet-based devices, such as IP cameras, video-servers, Wi-Fi Access Points, VoIP phones, etc
4.18. The wireless transceiver shall be able to route and forward multicast traffic.
4.19. The wireless transceiver shall be shall be in compliance with the FIPS 197 directive and support 128-bit AES encryption at the link level
4.20. The wireless transceiver shall embed a radio chip capable of performing AES 128 bit or AES 256 bit encryption in hardware
4.21. The wireless transceiver shall have a standard 2 years warranty in parts and labor and an optional warranty extension of 3 years

CONSTRUCTION METHODS:

The Wireless Transceiver shall be installed as shown on the plans, detail layouts, and manufacturer's recommendations. The Installation of the Wireless Transceiver shall be approved by the Engineer and the RIDOT TMC.

METHOD OF MEASUREMENT: Each "WIRELESS TRANSCEIVER**"** will be measured for payment at the unit price "EACH" by the number of such units installed in accordance with the plans and/or as directed by the Engineer.

BASIS OF PAYMENT: The accepted quantities of "WIRELESS TRANSCEIVER**"** will be paid for at their respective contract unit price per "EACH" such unit as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including all mounting hardware and brackets, for providing and installing said units and all other incidentals required to finish the work, complete and accepted by the Engineer.

JOB SPECIFIC
T12.9922
CRESTRON DM CABLING

DESCRIPTION: Work performed under this item shall consist of furnishing, installing, DM Cabling for Crestron Video Display Units. Installation shall include the Cabling, running of wire, and terminating ends of cabling to appropriate connections as required by the manufacturer.

DM Cabling will be ultra-high band with CAT&A Shielded twist pair (S/FTP) cable designed to enable the distribution of 4K Video at distances of up to 330 ft. using Digital Media 8G+.

MATERIALS:

Cabling Shall meet the following requirements:

1. Electrical:
   - 1.1. Mutual Capictance ≤5.6 nF / 100 m @ 1 kHz
   - 1.2. Velocity of Propagation at74% nominal
   - 1.3. Delay Skew ≤25 ns / 100 m
   - 1.4. Conductor DC Resistance ≤95 Ohms / km @ 20°C
   - 1.5. Conductor DC Resistance Unbalance ≤2% @ 20°C
   - 1.6. Pair to Ground Capacitance Unbalance ≤1600 pF / km
   - 1.7. Characteristic Impedance at100 Ohms nominal
2. Shielded Twist Pairs
   - 2.1. Colors Blue/white, orange/white, green/white, brown/white
   - 2.2. Conductors are 22 AWG solid bare copper
   - 2.3. Insulation is Foam FEP
   - 2.4. Outer Diameter (per conductor) is 0.056 inch (1.41 mm) nominal
   - 2.5. Shield (per pair) is AL foil
3. Overall Shield is Tinned copper Braid with over 50% coverage
4. Outer Jacket
   - 4.1. Color is Blue
   - 4.2. Made of Low Smoke PVC
   - 4.3. Thickness is 0.018 inch (0.45 mm)
   - 4.4. Outer Diameter is 0.304 inch (7.7 mm) nominal
   - 4.5. Minimum Recommended Bend Radius is 2.44 inches (62 mm)
   - 4.6. Maximum Recommended Pull Tension is 25 lbf (111 N)
5. Operating Temperature is -4° to 140°F (-20° to 60°C)
   - 5.1. Type CMP, NEC Article 800, UL Subject 444, cUL, IEC 61156-5, ISO/IEC 11801, Category 7a Compliant

CONSTRUCTION METHODS:

DM Cabling shall be installed as directed by the TMC and per manufacturer's recommendations. The Installation shall be approved by the Engineer and the RIDOT TMC.

METHOD OF MEASUREMENT: Each "CRESTRON DM CABLING**"** will be measured for payment at the unit price "LINEAR FOOT" by the number of such units installed in accordance with the plans and/or as directed by the Engineer.

BASIS OF PAYMENT: The accepted quantities "CRESTRON DM CABLING**"** will be paid for at their respective contract unit price per "LINEAR FOOT" such unit as listed in the Proposal. The price so-stated constitutes full and complete compensation for all labor, materials, and equipment, including all mounting hardware and brackets, for providing and installing said units and all other incidentals required to finish the work, complete and accepted by the Engineer.

JOB SPECIFIC
T13.9901
DOOR ACCESS CONTROL MODULE FOR RICHMOND WELCOME CENTER

DESCRIPTION:
The work described is to furnish and install a Wireless Keycard System that shall be a keyless next generation of networked access control systems and to be mounted next to security door. It shall be comprised of the Keypad with card reader, designed for either an exterior double or single door access control. The Keypad shall be able to withstand the outside elements such as sun, rain, sleet and snow without compromising the card readers ability to function. Each of the Wireless Keycard keypads shall communicate with a wireless transmitter and report through the remote management software.

MATERIALS:
1. 12 Pad 3x4: Single gang switchbox or surface mount
2. Keypad+Card Reader: Single gang switchbox or surface mount
3. Narrow: Mullion Mount
4. Single Gang: Single gang switchbox

Power Requirements:
1. Normal 110V local power or if approved Four AA batteries
2. Contractor shall be required to supply power for each unit individually and locally. Cost for any cabling etc. for this connection is to be incidental to the Card Reader unit itself

Outputs:
1. SPDT Relays rates at 2 amps (30VDC)
2. Voltage or Dry Contact, Fail Safe or Fail Secure

Current Draw :

	Minimum	Maximum
Series I :	125 mA	195 mA
Series II :	175 mA	245 mA
Series III :	205 mA	275 mA
Series IV:	155 mA	225 mA

Transmit Frequency:
1. 125 kHz

Typical Dimensions: (Height Width Depth)
1. 12 Pad 3x4 5 ⅛” 3 ⅜” 7/16”
2. Thinline 2x6 7 ⅛” 1 ¾” ¾”
3. Keypad + Card Reader - 7 ¼” 3 ⅝” 1 3/16”
4. Narrow Card Reader - 4 ½” 1 ¾” ¾”
5. Single Gang - 4 ½” 2 ¾” ¾”

Operating Environment:

1. All Readers: IP66 Rated, - 40°C to + 70°C (- 40°F to + 160°F)
2. 100% Relative Humidity
3. Controller: 0°C to + 50°C (32°F to +122°F)
4. 5% to 95% Relative Humidity, non-condensing

Certifications:

UL Listed Access Control Unit Accessory – 43J0

PC Programmable via Standard Web Browser:

Embedded User Interface for remote management via standard web browser using SSL 3.0 (Secure Socket Layer) and TLS 3.1 (Transport Layer Security).
No external software required.

METHOD OF MEASUREMENT:

Item "DOOR ACESS CONTROL MODULE" will be measured by "EACH" unit installed in accordance with the Contract Documents and/or as directed by the Engineer.

BASIS OF PAYMENT:

"DOOR ACESS CONTROL MODULE" 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 labor, materials, tools and equipment, 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.

Required Forms

These Forms are To Be Filled In and Submitted With Your Bid

- DEBAREMENT FORM
- LOBBYING FORM
- CONFLICTS DISCLOSURE STATEMENT
- ANTI-COLLUSION CERTIFICATE
- CERTIFICATION FOR TITLE VI ASSURANCE
- DBE SPECIAL PROVISION
- REQUIREMENT FOR AFFIRMATIVE ACTION

Also Attached are Federal Wage Rates

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

On Call Video Equipment- 2019-OS-042

In accordance with the code of Federal Regulations, Part 49 CFR Section 29.5 10, the prospective primary participant _____, _____, being duly sworn (or executed under penalty of perjury under the laws of the United States), certifies to the best of his/her knowledge and belief, that its principals:

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

b.) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal 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 statues 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 (l)(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.

Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall list exceptions below.

Exceptions will not necessarily result in denial of award, but, will be considered in determining contractor responsibility. For any exception noted, indicate below to whom it applies, the initiating agency, and the dates of the action. Providing false information may result in criminal prosecution or administrative sanctions. If an exception is noted the contractor must contact the Department to discuss the exception prior to award of the contract.

Signature:_____Date:_____

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to Title 31, U.S.C. Section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.

2. Identify the status of the covered Federal action.

3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.

4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.

5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.

6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.

7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.

8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number, Invitation for Bid (IFB) number, grant announcement number, the contract, grant, or loan award number, the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."

9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.

10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.
    (b) Enter the full names of the individual(s) performing services, and include full address if different from 10(a). Enter Last Name, First Name, and Middle Initial (MI).

11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.

12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.

13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.

14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity,not just time spent in actual contact with Federal officials. Identify the Federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) of Congress that were contacted.

15. Check whether or not a SF-LLL-A Continuation Sheet(s) is attached.

16. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any o her aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (03-48-00-46), Washington, D.C. 20503.

Approved by
03-48-0046

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352 - 0348-0046

(see reverse for public burden disclosure)

1. Type of Federal Action:
   - ☐ a. contract
   - b. grant
   - c. cooperative agreement
   - d. loan
   - e. loan guarantee
   - f. loan insurance

2. Status of Federal Action:
   - ☐ a. bid/offer/application
   - b. initial award
   - c. post-award

3. Report Type:
   - ☐ a. initial filing
   - b. material change

   For Material Change Only:
   year _____ quarter _____
   date of last report _____

4. Name and Address of Report Entity:
   ☑ Prime ☐ Subawardee
   Tier ___, if known:

   Congressional District, if known:

5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:

   Congressional District, if known:

6. Federal Department Agency:

7. Federal Program Name/Description:

   CFDA Number, if applicable: _____

8. Federal Action Number, if known:

9. Award Amount, if known:

   $

10. a. Name and Address of Lobbying Entity:

    (if individual, last name, first name, mi):

10. b. Individuals Performing Services (including address if different from No. 10a)

    (last name, first name, mi):

11. Amount of Payment (check all that apply)

    $_____ ☐ actual ☐ planned

12. Form of Payment (check all that apply):
    - ☐ a. cash
    - ☐ b. in-kind; specify: nature _____
      value _____

13. Type of Payment (check all that apply):
    - ☐ a. retainer
    - ☐ b. one-time fee
    - ☐ c. commission
    - ☐ d. contingent fee
    - ☐ e. deferred
    - ☐ f. other; specify:

14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contracted, for Payment indicated in Item 11 (Attach Continuation Sheet(s) SF-LLL-A, if necessary):

15. Continuation Sheet(s) SF-LLL-A attached: ☐ yes ☑ no

16. Information requested through this form is authorized by title 31 U.S.C. section 1352. this disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

    Signature: _____

    Print Name: _____

    Title: _____

    Telephone No: _____ Date: _____

For Federal use Only:

Authorized for Local Reproduction
Standard Form – LLL-A

Approved by
03-48-0046

DISCLOSURE OF LOBBYING ACTIVITIES
CONTINUATION SHEET

Reporting Entity: _____ Page _____ of _____

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Standard Form - LLL-A

CONFLICTS DISCLOSURE POLICY

To ensure that the Rhode Island Department of Transportation (RIDOT) maintains the continued confidence and trust of the people of Rhode Island in carrying out its mission, prospective vendors must disclose any family (or other personal) relationships, associations or connections that the vendor, its affiliates, or employees, may currently have with any RIDOT employee. A Conflicts Disclosure Statement shall be submitted to RIDOT from the following:

- Owners;
- Directors;
- Principals;
- Officers, board members, or individuals with corporate authority;
- If the vendor is a partnership, the applicant's partners;
- If the vendor is a limited liability company, its members and managers;
- Employees with decision-making authority, including executive directors, managers or individuals in a similar position with corporate authority; and
- Shareholders with a controlling interest.

RIDOT 12/27/07

CONFLICTS DISCLOSURE STATEMENT

RE: _____

_____

I, _____ **hereby certify as follows:**

I am employed as a _____ **of** _____
[TITLE] **[COMPANY]**
and to the best of my knowledge:

PLEASE CHECK THE APPROPRIATE BOX:

☐ **I have no family or personal relations currently employed either on a full-time or part-time basis at the Rhode Island Department of Transportation.**

☐ **I do have family or personal relations currently employed at the Rhode Island Department of Transportation. Please list their name(s), title(s), and RIDOT Division(s) (if known):**

NAME	TITLE	RIDOT DIVISION

If necessary, please add any additional names as attachments hereto.

FOR ILLUSTRATIVE PURPOSES, FAMILY RELATIONS SHALL INCLUDE, WHETHER BY BLOOD, ADOPTION OR MARRIAGE, ANY OF THE FOLLOWING RELATIONSHIPS:

Father, Mother, Son, Daughter, Brother, Sister, Grandfather, Grandmother, Grandson, Granddaughter, Father-In-Law, Mother-In-Law, Brother-In-Law, Sister-In-Law, Son-In-Law, Daughter-In-Law, Stepfather, Stepmother, Stepson, Stepdaughter, Stepbrother, Stepsister, Half-Brother Or Half-Sister, Niece, Nephew, And Cousin

- *If you are unsure whether a relationship, association, or connection you have may need to be disclosed, please consult with RIDOT's Legal Office at (401) 222-6510.*

_____

SIGNATURE **DATE**

By signing this form you: (1) certify that the information contained in this form is complete and accurate to the best of your knowledge; and (2) acknowledge your continuing obligation to complete and submit a new Disclosure form when there is any change in your family or personal relations during the course of this Contract.

This document is used for internal RIDOT purposes only in order to address and avoid any potential conflicts at the inception of the contract process and to avoid any impropriety or the appearance of impropriety during the contract process. Any disclosures made hereto will not prejudice prospective vendors from selection.

Revised: 4/12/2002

ANTI-COLLUSION CERTIFICATE FOR CONTRACT AND FORCE ACCOUNT
[Unsworn Declaration]

On-Call Video Equipment 2019-OS-042

Title 23, United States Code, Section 112(c), requires, as a condition precedent to approval by the Director of Public Roads of the contract for this work, that there be filed an unsworn declaration executed by, on behalf of, the person, firm, association, or corporation submitting the bid certifying that such person, firm, association, or corporation has not either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This unsworn statement shall be in the form of a declaration executed under penalty of perjury under the laws of the United States.

To the: **STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS**
DEPARTMENT OF TRANSPORTATION, DIVISION OF PUBLIC WORKS

State of _____

County of _____

I, _____, _____, under penalty under the laws of the United States, do depose and say:

On behalf of _____, of_____ that said Contractor has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with Rhode Island Contract Number _____, Federal-Aid Project Number _____ , County of _____ Town-City _____, Road-Bridge _____.

Signature: _____Date:_____

USDOT Standard Title VI/Nondiscrimination Assurances for Contractors DOT Order 1050.2A

Project: On-Call Video Equipment 2019-OS-042

I, _____, _____Job Title _____, a duly authorized representative of _____Company Name _____ do hereby certify that the organization affirmatively agrees to the provisions set forth by *U.S. DOT Order 1050.2A, DOT Standard Title VI Assurances and Non-Discrimination Provisions (April 11, 2013)*

_____
Signature of Authorized Official

_____
Date

APPENDIX A

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

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

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

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

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

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

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

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

APPENDIX E

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

<u>Pertinent Non-Discrimination Authorities:</u>

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq*., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq*.), (prohibits discrimination on

the basis of sex);

- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq*.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq*.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 -- 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 *et seq*).

Last Update: November 2017

DBE SPECIAL PROVISION

DISADVANTAGED BUSINESS ENTERPRISE AFFIRMATIVE ACTION CERTIFICATION FOR CONTRACTORS AND CONSULTANTS

With respect to the above numbered project, I hereby certify that I am the _____ and duly authorized representative of _____ whose address is _____ _____.

I do hereby certify that it is the intention of the above organization to affirmatively seek out and consider Disadvantaged Business Enterprises to participate in this contract as contractors, subcontractors and/or suppliers of materials and services. I agree to comply with the requirements of the U.S. Department of Transportation's regulations 49 CFR Part 26.

I understand and agree that any and all contracting in connection with this contract, whether undertaken prior to or subsequently to award of contract, will be in accordance with this provision. I also understand and agree that no contracting will be approved until the State Department of Transportation has reviewed and approved the affirmative actions taken by the above organization.

DEFINITIONS:

A “Broker,” for purposes of this provision, is a DBE that has entered into a legally binding relationship to provide goods or services delivered or performed by a third party.

A “DBE Contractor” or “DBE Subcontractor,” for purposes of this provision, is a DBE that has entered into a legally binding relationship with an obligation to furnish services, including the materials necessary to complete such services.

“Disadvantaged Business Enterprise” or “DBE,” for purposes of this provision, means a for-profit small business concern certified by the Rhode Island Department of Administration, under U.S. Department of Transportation certification guidelines (a) that is at least 51 percent owned by one or more socially and economically disadvantaged individuals or, in the case of any corporation, in which 51 percent of the stock is owned by one or more such individuals; and (b) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

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

A “Manufacturer,” for purposes of this provision, is a DBE that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles or equipment required under the contract and of the general character described by the specifications.

A “Mentor/Protégé” agreement is one in which a DBE and prime contractor in which the DBE and other contractor are independent business entities, which meet the requirements for certification as defined in subpart D of 49 CFR Part 26. A protégé firm must be certified before it begins participation in a mentor/protégé arrangement. RIDOT must submit said agreement to the operating administration (FHWA/FTA) for approval prior to executing an individual contractor/subcontractor mentor/protégé agreement.

A “Regular Dealer” is a DBE that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the

public in the usual course of business. In the sale of bulk items, such as cement, asphalt, steel and stone, a DBE firm may be considered a “regular dealer” if it owns and operates the distribution equipment used to deliver its products. Any additional equipment used by a regular dealer shall be through long-term lease agreements rather than on an ad hoc or contract-by-contract basis.

“Race conscious” measures (goals) or programs are those that are focused specifically on assisting DBEs.

“Race neutral” measures (goals) or programs are those that are, or can be, used to assist all small businesses, including DBEs.

“Small Business Concern” means, with respect to firms seeking to participate as DBEs in DOT-assisted contracts, a small business concern as defined pursuant to Section 3 of the Small Business Act and Small Business Administration regulations implementing it (13 CFR part 121), and that does not also exceed the cap on average annual gross receipts specified in 49 CFR 26.65(b).

“Socially and economically disadvantaged individual” means any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who has been subjected to racial or ethnic prejudice or cultural bias within American society because of his or her identity as a member of a group and without regard to his or her individual qualities. The social disadvantage must stem from circumstances beyond the individual’s control.

1. Any individual who a recipient finds to be a socially and economically disadvantaged individual on a case-by-case basis.
2. Any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:
    a. “Black Americans,” which includes persons having origins in any of the Black racial groups of Africa;
    b. “Hispanic Americans,” which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South America, or other Spanish or Portuguese culture or origin, regardless of race;
    c. “Native Americans,” which includes persons who are enrolled members of a federally or State recognized Indian Tribe[1], Alaska Natives, or Native Hawaiians;
    d. “Asian-Pacific Americans,” which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), Republic of Northern Marianas Islands, Macao, Fiji, Tonga, Kirbati, Tuvalu, Nauru, Federated States of Micronesia, or Hong Kong;
    e. “Subcontinent Asian Americans,” this includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal, or Sri Lanka;
    f. Women; and
    g. Any additional groups whose members are designated as socially and economically disadvantaged by the Small Business Administration (SBA), at such as time as the SBA designation becomes effective.
3. Being born in a particular country does not, standing alone, mean that a person is necessarily a member of one of the groups listed in this definition.

[1] A “tribally-owned concern” means any concern at least 51 percent (51%) owned by an Indian tribe as defined in 49 CFR 26.5.

I. GENERAL REQUIREMENTS AND SANCTIONS:

A. Failure by the Contractor to demonstrate every good faith effort in fulfilling its DBE commitment during the construction period will result in the reduction in contract payments by the amount determined by multiplying the awarded contract value by the established DBE percentage (listed in Section II. A. below), and subtracting the dollar value of the work actually performed by DBE contractors. This action will not preclude RIDOT from imposing sanctions or other remedies available as specified in paragraphs below.

B. Contractors and subcontractors are advised that failure to carry out the requirements of this provision shall constitute a breach of contract and, after notification by the Department, may result in termination of the agreement or contract by the Department, or such remedy as the Department deems appropriate.

C. Brokering of work by DBEs is not allowed and is a contract violation unless DBE is a certified DBE broker. A DBE firm involved in brokering of work may have their certification removed or suspended and shall be subject to the sanctions stated herein. Any firm that engages in willful falsification, distortion or misrepresentation with respect to any facts related to the project shall be subject to sanctions described in paragraph (B) above and referred to the U.S. Department of Transportation's Office of the Inspector General for prosecution under Title 18, USC Section 1001.

D. The Disadvantaged Business Enterprises Directory or other available resources may be obtained at the Rhode Island Department of Transportation Office of Civil Rights (OCR), 2 Capitol Hill, Providence, RI 02903, or at http://odeo.ri.gov/.

E. The utilization of Disadvantaged Business Enterprises is in addition to all other equal opportunity requirements of this contract. The Contractor shall keep such records as are necessary to determine compliance with its Disadvantaged Business Enterprises Utilization obligations. The records kept by the Contractor shall include:
   1. The number of DBE contractors, subcontractors and suppliers; and the type of work, materials or services being performed on or incorporated in this project.
   2. The progress and efforts being made in seeking out DBE contractor organizations and individual DBE contractors for work on this project.
   3. Documentation of all correspondence, contacts, telephone calls, etc. necessary to obtain the services of DBEs on this project.
   4. Copies of canceled checks or other documentation that substantiates payments to DBE firms.
   5. All such records must be maintained for a period of three (3) years following acceptance of final payment and will be available for inspection by RIDOT and the Federal Highway Administration.

F. A contractor for a construction contract will not be eligible for award of contract under this invitation for bids unless such contractor has submitted, at the time of the Bid Opening, this Certification. A Consultant will be required to sign this Certification at the time of the contract execution or the award of contract will be nullified.

II. PRE-AWARD REQUIREMENTS:

A. Prior to contract award and within five (5) days from the opening of bids, the contractor/consultant shall, at a minimum, take the following actions to meet the race-conscious goal established by OCR, hereinafter referred to as the 'contract goal,':
   1. Appoint an EEO Officer to administer the Contractor's DBE obligations.

2. Submit to the RIDOT Construction Section for approval any subcontractor and/or supplier, and submit executed subcontract agreement(s)/purchase orders, including a detailed description of the work and price, between the contractor and the qualified DBE to be utilized during the performance of work. In the case of consultant contracts, the consultant shall submit the above DBE obligation as stated in the Scope of Work. This DBE obligation shall be included in the proposal submission to the Design Section, and include the name of the DBE, scope of work, and the actual dollar value.
3. Each construction subcontract submitted shall be accompanied by a completed "DBE Utilization Plan" that specifies the items of work to be performed and the contractor's commitment to complete each subcontract entered into with a DBE pursuant to meeting the contract goal stated herein.
4. Any subcontract for materials or supplies provided by a DBE broker, or for other services not provided directly by a DBE firm, shall be accompanied by the RIDOT Broker Affidavit form.

B. RIDOT's Office of Civil Rights will review submitted DBE obligations to determine: specific certification; value and nature of proposed work; nature of work and commercially useful function; whether DBE is a supplier or manufacturer; complaints against DBE; past history of DBE's nonperformance or noncompliance.

C. In the event that the cumulative percentages submitted do not equal or exceed the contract goal, RIDOT will conduct a good faith effort (GFE) review to determine the extent of the prime contractor's efforts to seek out DBEs and afford adequate subcontracting opportunities to meet the contract goal. Evidence in support of the prime's actions must be submitted using RIDOT's Good Faith Effort Form (GFEF). This form contains examples of the types of evidence set forth in 49 CFR Part 26, Appendix A. RIDOT will consider this and other relevant evidence in making its GFE determination.
   1. Where RIDOT has determined that the prime contractor made every good faith effort to meet the contract goal, the contract shall be awarded.
   2. Where RIDOT has determined that the prime contractor failed to make every good faith effort in meeting the contract goal, the contract shall not be awarded, and an opportunity for administrative reconsideration shall be provided.

III. CONSTRUCTION PERIOD REQUIREMENTS:

A. Counting of Participation and Commercially Useful Function (CUF)

The total dollar value of a prime contract awarded to a DBE will be counted toward the DBE requirement. Likewise, all subcontract work performed by a DBE will count toward the DBE requirement.

The allowable value of a subcontract with DBE participation will be treated as the commitment of the prime contractor toward meeting the contract goal. The specific rules for crediting DBE participation toward contract goals are as follows:

1. When a DBE participates in a contract, RIDOT will consider only the value of the work actually performed by the DBE toward DBE goals. RIDOT includes the entire amount of that portion of a construction contract (or other contract not covered by paragraph (3) of this section) that is performed by the DBE's own forces. RIDOT credits the cost of supplies and materials purchased or leased by the DBE subcontractor for the work of the contract. However, supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate are not counted toward participation.
2. RIDOT credits the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a USDOT-assisted contract, toward DBE goals, provided the fee is determined to be reasonable and not excessive as compared with fees customarily allowed for similar services.

3. When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.
4. When a DBE performs as a participant in a *joint venture*, RIDOT will count a portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the DBE performs with its own forces toward DBE goals.

RIDOT will count expenditures to a DBE contractor toward DBE goals only if the DBE is performing a commercially useful function (CUF) on that contract.

1. A DBE performs a CUF when it is responsible for execution of the work of the contract, and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, RIDOT evaluates the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors. Even if a DBE is performing pursuant to normal industry practices, if those practices, in fact, erode the ability of the DBE to control its work and remain independent, the practice may affect how much can be credited toward the DBE goal and may raise questions about the DBE eligibility.
2. Suppliers: A supplier is considered to perform a CUF when it packages, i.e. takes quotes from several manufacturers, and/or sells from its own inventory in order to provide one or more items to a contractor. A supplier may own a franchise and/or may be a factory representative to one or more manufacturers. Consistent with a contractor's probable needs, a supplier, not a contractor, may place orders for production with manufacturers.
3. "Pass through" supply operations occur when the contractor decides what items shall be bought from what sources and/or agrees directly with the manufacturer, or other non-DBE party, to schedule delivery and/or directs adjustments and/or routes payments and purchase orders through the DBE. Pass through operations are not commercially useful functions and will not be counted toward contract goals.
4. Management: The DBE must manage the work that has been contracted to its firm. The DBE owner must supervise daily operations, either personally, or with a full-time, skilled and knowledgeable superintendent employed by and paid wages by the DBE. The superintendent must be present on the job site and under the DBE owner's direct supervision. The DBE owner must make all operational and managerial decisions for the firm. Mere performance of administrative duties is not considered supervision of daily operations.
5. Workforce: In order to be considered an independent business, a DBE must keep a regular workforce. DBEs cannot "share" employees with non-DBE contractors, particularly the prime contractor. The DBE shall perform its work with employees normally employed by and under the DBE's control, see paragraph 9 of this section. The DBE must be responsible for payroll and labor compliance requirements for all employees performing on the contract and is expected to prepare and finance the payrolls. Direct or indirect payments by any other contractor are not allowed.
6. Trucking: RIDOT will consider the following factors in determining whether a DBE trucking company is performing a CUF. The DBE must manage and supervise the entire trucking operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting DBE goals.
    a. The DBE itself must own and operate at least one fully licensed, insured, and operational vehicle being used on the contract.

b. The DBE must receive compensation for the total value of the services it provides on the contract using vehicles it owns, insures, and which are operated by drivers it employs.
c. The DBE may lease vehicles from another DBE firm, including an owner-operator who is certified as a DBE. The DBE which leases vehicles from another DBE shall receive credit for the total value of the services the lessee DBE provides on the contract.
d. The DBE may also lease vehicles from a non-DBE firm, including from an owner-operator. The DBE which leases vehicles from a non-DBE is entitled to credit for the total value of services provided by non-DBE lessees not to exceed the value of services provided by DBE-owned vehicles on the contract. Additional participation by non-DBE lessees receives credit only for the fee or commission it receives as a result of the lease arrangement.

    Example to this subsection (6) (d): DBE firm X uses two of its own trucks on a contract. It leases two trucks from DBE firm Y and six trucks from non-DBE firm Z. DBE credit would be awarded for the total value of transportation services provided by firm X and firm Y, and may also be awarded for the total value of transportation services provided by four of the six trucks provided by firm Z. In all, full credit would be allowed for the participation of eight trucks. With respect to the other two trucks provided by firm Z, DBE credit could be awarded only for the fees or commission pertaining to those trucks firm X receives as a result of the lease with firm Z.

e. For purposes of this subsection, a lease must indicate that the DBE has exclusive use of and control over vehicles used on the project. This does not preclude vehicles from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for the use of the leased vehicle. Leased vehicles must display the name and identification number of the DBE.

7. All expenditures with manufacturers and suppliers must be properly documented in writing in order to count toward a DBE obligation. RIDOT will count expenditures with DBEs for materials or supplies toward DBE goals as follows:
    a. For a DBE contractor (furnish and install) to receive credit for supplying materials, the DBE must perform the following four functions: (1) negotiate price; (2) determine quality and quantity; (3) order the materials; and (4) pay for the material itself. If the DBE does not perform all of these functions, it has not performed a CUF with respect to obtaining the materials, and the cost of the materials may not be counted toward the DBE goal. Invoices for the material should show the payor as the DBE.
    b. If the materials or supplies are purchased from a DBE manufacturer, RIDOT will count 100 percent of the cost of the materials or supplies.
    c. If the materials or supplies are purchased from a DBE regular dealer, RIDOT will count 60 percent of the cost of the materials or supplies toward DBE goals.
    d. With respect to flaggers, when flaggers are provided, RIDOT will count 60 percent of the labor. When traffic signs are included with flaggers, the work will be counted as 100 percent.
    e. With respect to materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer, RIDOT will count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials and supplies required on a job site, toward DBE goals, provided RIDOT determines the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services. The fees will be evaluated by RIDOT after receiving the Broker's Affidavit Form from the DBE. RIDOT will not count any portion of the cost of the materials and supplies themselves toward DBE goals.
8. Subcontractor: A subcontractor arrangement exists when a person or firm has a contractual obligation to perform a defined portion of the contract work and the following conditions are present:

a. Compensation is determined by the amount of work accomplished, rather than being paid on an hourly basis.
b. The subcontractor exercises control over work methods (except as limited by project specifications), while furnishing and managing its own labor and equipment with only minimal, general supervision being exercised by the prime contractor.
c. The personnel involved in the DBE subcontractor's portion of the project are both under the subcontractor's direct supervision and identified on its payroll records. When warranted by unique circumstances of a project, a DBE subcontractor may be permitted to employ on a limited basis specialty trades personnel who are not normally employed by the DBE subcontractor.
d. Second tier DBE subcontracting will be approved only in accordance with normal industry practice and when the type of work differs from work which the DBE usually performs.

9. All factors pertaining to the unique conditions of a project shall be considered in determining whether a DBE subcontractor relationship actually exists on the project. A DBE subcontractor may need to lease/rent equipment, other than over-the-road trucks, and/or augment its workforce with additional skilled personnel in order to perform certain project-related work. The DBE subcontractor is required to arrange for the necessary equipment through rental/leasing agreements, as necessary. (Off-the-road equipment, such as "Euclids," may be rented/leased from the prime contractor even though the CUF guidelines prohibit rental/lease of over-the-road trucks from the prime contractor.) Likewise, in limited instances, the prime contractor may provide some, but not all, personnel to the DBE subcontractor when the following conditions are present:
    a. A DBE must perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force.
    b. The DBE must not subcontract a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved.
    c. The personnel must have a specialized expertise which has not been mastered by the DBE's own skilled/supervising/managerial personnel.
    d. Such personnel must be placed on the DBE's payroll and come under the direct supervision of the DBE for the performance of the particular subcontract work.
    e. The deployment of such personnel must be accomplished within the framework of a mentor-protégé agreement; or for emergency purposes, by contract change order. All instances of combining personnel must be for developmental purposes in which teaching/demonstration/consulting to the DBE must occur.
    f. Long term, continual (e.g. from one contract to another) or chronic use by a DBE firm, of personnel normally employed by another specific firm, lacking a mentor-protégé agreement which is being carried out in good faith, is not consistent with the CUF guidelines.
    g. To place entire work crews on DBE's payrolls when such personnel are normally employed by another specific firm is not consistent with the CUF guidelines.
    h. A DBE may need to lease/rent equipment, except for over-the-road trucks, in order to be properly equipped to execute the work of a mentor-protégé agreement. In such cases where the DBE has investigated several possible sources of such equipment within a reasonable geographical area to the project, the DBE may find the best offer was made by the prime contractor or another subcontractor on the project. In such cases, the DBE may rent/lease such equipment from the prime or another subcontractor, provided that the use of such equipment is material to demonstrating/teaching objectives set forth in the mentor-protégé agreement. Thus, the DBE's regular employees, not those temporarily furnished by the prime contractor, or another subcontractor, shall operate such equipment for the majority of the time during which the equipment is used in the work of the DBE subcontractor under the mentor-protégé agreement.

i. A DBE's use of equipment owned by a prime contractor or another subcontractor or without an appropriate mentor/protégé program is inconsistent with the CUF guidelines and will result in noncompliance.

10. If a contractor or subcontractor is not certified as a DBE by the Minority Business Enterprise Compliance Office under the specific NAICS code of line items identified in the contract, at the time of the execution of the contract or issuance of the purchase order, RIDOT will not count that firm's participation toward any DBE goals, except as provided in 49 CFR 26.87(i).
11. RIDOT will not count toward the contract goal the dollar value of work performed by a contractor or subcontractor after it has ceased to be a certified DBE.
12. RIDOT will not count the participation of a DBE subcontractor toward a contractor's final compliance with its DBE obligations on a contract until all payments being credited have been fully paid to the DBE.

B. DBE Replacement and Termination:

The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains RIDOT's written consent as provided in this section; and unless RIDOT's consent is provided under this paragraph, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

1. Good Cause for Replacement or Termination

The prime contractor must provide the Department's OCR with a copy of its "Intent to Substitute /Terminate" notice to the DBE setting forth the reasons for the request. This notice must advise the DBE that it has five (5) days to respond (to prime and State) with objections and why the State should not approve the prime's proposed action.

After adequate notice by the Contractor, if any DBE is unable to perform work committed toward the goal, the DBE shall provide to the OCR a signed statement stating why it is unable to complete the work. The Contractor shall document its efforts to have another DBE perform the item or to have a DBE perform other items to replace the original DBE commitment amounts. In the event the Contractor is not able to find replacement DBE work, the Contractor must provide the OCR with documentation clearly evidencing its good faith efforts. Contractors are prohibited from terminating for convenience any DBE firm used to fulfill a commitment pursuant to meeting the contract goal stated herein.

Prior to substitution or termination of a DBE subcontractor, the contractor shall demonstrate good cause and obtain written approval from the OCR.

In accordance with 49 CFR Part 26.53 good cause includes the following circumstances:

a. The listed DBE subcontractor fails or refuses to execute a written contract;
b. The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
c. The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements;
d. The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
e. The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law;
f. RIDOT determines that the listed DBE subcontractor is not a responsible contractor;

g. The listed DBE subcontractor voluntarily withdraws from the project and provides to RIDOT written notice of its withdrawal;
h. The listed DBE is ineligible to receive DBE credit for the type of work required;

i. A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract;
j. Other documented good cause that RIDOT determines compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the prime contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime contractor can self-perform the work for which the DBE contractor was engaged or so that the prime contractor can substitute another DBE or non-DBE contractor after contract award.

In addition to post-award terminations, the provisions of this section apply to pre-award deletions of or substitutions for DBE firms put forward by offerors in negotiated procurements.

Failure by the contractor to carry out the requirements of this part is a material breach of the contract and may result in the termination of the contract or such other remedies that RIDOT deems appropriate.

2. Good Faith Efforts to Replace

When a DBE subcontractor is terminated as provided in paragraph (1) of this section, or fails to complete its work on the contract for any reason, RIDOT requires the prime contractor to make good faith efforts to find another DBE subcontractor to substitute for the original DBE. These good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the contract goal RIDOT established for the procurement. The good faith efforts shall be documented by the contractor. If RIDOT requests documentation under this provision, the contractor shall submit the documentation within 7 days, which may be extended for an additional 7 days if necessary at the request of the contractor, and RIDOT shall provide a written determination to the contractor stating whether or not good faith efforts have been demonstrated. The determination shall be made by the DBELO, under the criteria established below.

If there is a change order to a contract on which there is a DBE contract goal, then that contract goal applies to the change order as well as to the original contract. In the event of significant change orders, good faith efforts are required dependent upon the type of change order; RIDOT determines on a case-by-case basis what constitutes good faith efforts in the context of a particular change order. This could include modifying the contract goal amount applicable to the change order if circumstances warrant. When a change order decreases work, i.e. RIDOT determines specific line items are no longer necessary on a contract or there is a quantity change on an item, no good faith effort must be shown. However, when an increase of work occurs or there is a termination of a DBE, good faith efforts must be shown in accordance with the preceding requirements.

C. Monthly Payment Certifications:

All contractors on RIDOT projects are required to certify their payments to subcontractors by use of RIDOT's contractor compliance software on a minimum of a monthly basis (which, at time of publishing, is Prism). A project may not proceed to finalization without the input of this information. RIDOT's Prompt Payment Clause applies to both DBE and non-DBE subcontracts. The Contractor is responsible for the subcontractors' compliance with the submission of their payment reporting by way of this software.

D. Joint Check Procedure for DBEs:

A prime contractor must receive written approval by the Department's DBELO before using a joint check for materials/supplies called for under a subcontract with a DBE. Joint check requests shall be submitted by the prime contractor to the Department's OCR in writing along with a Joint Check Affidavit and the subcontract agreement. The following are general conditions that must be met regarding joint check use:

1. The use of the joint check shall only be allowed by exception and shall not compromise the independence of the DBE;
2. The second party (typically the prime contractor) acts solely as a guarantor;
3. The DBE must release the check to the supplier;
4. The subcontract agreement must reflect the total contract value, including the cost of materials and installation; actual payments for work performed by the DBE may reflect labor only; and
5. The DBE remains responsible for negotiation of price, determining quality and quantity, ordering materials and installing (where applicable) and paying for the material itself.

IV. FINAL SUBCONTRACTOR PAYMENTS AND RELEASE OF RETAINAGE

Prior to receiving final payment, the Contractor shall provide to the Resident Engineer certification of the dollars paid to each DBE firm using Form "DBE Request for Verification Payment." The certification shall be dated and signed by a responsible officer of the Contractor and by the DBE. Falsification of this certification will result in sanctions listed in Sections I. of this provision.

If this contract contains a DBE goal, the Contract Compliance Officer with the OCR will verify that the Contractor has attained the DBE goal specified on said project or has provided adequate documentation justifying a lesser amount. The final estimate will not be paid to the Contractor until proper certifications have been made.

When a subcontractor's work is satisfactorily complete (i.e., all the tasks called for in the subcontract have been accomplished and documented), and the Department has partially accepted the work and all payments have been certified by the Contractor and subcontractor on the "Certification of Progress Payment" form, the Prime Contractor shall release all retainage held by the Prime Contractor within thirty (30) days of satisfactory completion of the subcontractor's work. The subcontractor shall submit to the Prime Contractor the final executed form within ten (10) days of receipt of payment.

_____

Signature of Contractor or Consultant

_____

Date

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 met 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 identifi- cation).

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 is 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.

FEDERAL WAGE RATES

State of Rhode Island Division of Purchases Bid Form
On-Call Video Equipment Bid Number: 7598780

Item	Class-Item	Total Quantity	Unit	Unit Price	Total
1.0	FURNISH ONLY: IP POE IR Illuminated Network Camera (Q-6125-LE)	1	EACH		
2.0	FURNISH AND INSTALL: IP POE IR Illuminaeed Network Camera (Q-6125-LE)	1	EACH		
3.0	FURNISH ONLY: HD IP POE Laser Focused Network Camera (Q-6155-E)	1	EACH		
4.0	FURNISH AND INSTALL: HD IP POE Laser Focused Network Camera (Q-6155-E)	4	EACH		
5.0	FURNISH ONLY: PTZ Dome IP Camera, POE, with 36x zoom (Q-6054-E MKII)	1	EACH		
6.0	FURNISH AND INSTALL: PTZ Dome IP Camera, POE, with 36x zoom (Q-6054-E MKIII)	33	EACH		
7.0	FURNISH ONLY: 4-View IP POE Network Camera (Q-6000-E MKII)	1	EACH		
8.0	FURNISH AND INSTALL: 4-View IP POE Network Camera (Q-6000-E MKII)	4	EACH		
9.0	Video Management Processor (Proliant DL380p G8, W/2 Video Cards)	1	EACH		
10.0	Dual Display Video Processor (Proliant DL380e G8, W/2 Video Cards)	2	EACH		
11.0	48 Port Network Switch (2960S-48TD-L)	1	EACH		
12.0	48 Port Core Network Switch (WS-C3750X-47T-S)	1	EACH		
13.0	FURNISH AND INSTALL: Netgear ProSafe 8-Port 1Gb Ethernet Switch (GS108E)	18	EACH		
14.0	FURNISH 65 Foot Bucket for Camera Installation above 30 Feet in Height	8	HR		
15.0	FURNISH AND INSTALL: 2” Galvanized Rigid Steel Conduit, Overhead	50	LF		
16.0	FURNISH AND INSTALL: 2” Galvanized Rigid Steel Conduit, Underground	25	LF		
17.0	FURNISH AND INSTALL: 2” PVC Plastic Conduit, Overhead	50	LF		
18.0	FURNISH AND INSTALL: 2” PVC Plastic Conduit, Schedule 40, Underground	25	LF		
19.0	Filter for Planar Video Wall Module(Planar Margay II)	24	EACH		
20.0	Halogen Bulb for Planar Video Wall Module(Planar Margay II)	24	EACH		
21.0	Ballast for Planar Video Wall Module(Planar Margay II)	8	EACH		
22.0	Aimetis Camera License	20	EACH		

State of Rhode Island Division of Purchases Bid Form
On-Call Video Equipment Bid Number: 7598780

23.0	Aimetis Support Agreement	1	LUMP SUM		
24.0	23 AWG Category 6a STP - Network Video Cable	2000	LF		
25.0	Outdoor 23 AWG Category 6a STP - Network Video Cable	2000	LF		
26.0	Crestron DM Cabling	500	LF		
27.0	Crestron Programmer	60	HR		
28.0	Telecom Technician	78	HR		
30.0	Projector Bulb and Filter(EIKI Modle LC-WUL100)	2	EACH		
31.0	Lowering Device Refurbishment	6	EACH		
32.0	FURNISH AND INSTALL: Hardened Ethernet Switch with SFP fiber Optic Transceivers	8	EACH		
33.0	Replacement 24/7 Spot Monitor	6	EACH		
34.0	Interlink Planar Replacement Monitor	4	EACH		
35.0	Maintenance HQ Replacement Planar Monitor	0	EACH		
36.0	Door Access Control module Replacement for Richmond Welcome Center	2	EACH		
37.0	FURNISH AND INSTALL: Outdoor Ready Bullet Camera (P-1447-LE)	1	EACH		
38.0	FURNISH AND INSTALL: Indoor Dome Camera (P-3367-V)	2	EACH		
39.0	FURNISH AND INSTALL: Outdoor Dome Camera (P-3367-VE)	5	EACH		
40.0	FURNISH AND INSTALL: Wireless Fluid Mesh Tranciever for Richmond Welcome Center	1	EACH		
41.0	FURNISH ONLY : Wireless Fluid Mesh Tranceiver for Richmond Welcome Center	4	EACH		
42.0	FURNISH AND INSTALL: Wireleess Fluid Mesh Base Tranceiver for Richmond Welcome Center	4	EACH		
43.0	FURNISH ONLY: Wireless Fluid Mesh Base Tranceiver for Richmond Welcome Center	1	EACH		
44.0	21.5"Full HD LED Monitor Display W/ Integrated Speakers	1	EACH		
45.0	Miscellaneous Materials and Services	111000	EACH		
				Total	

FEDERAL WAGE RATES

General Decision Number: RI190001 04/05/2019 RI1

Superseded General Decision Number: RI20180001

State: Rhode Island

Construction Types: Building, Heavy (Heavy and Marine) and Highway

Counties: Rhode Island Statewide.

BUILDING CONSTRUCTION PROJECTS (does not include residential construction consisting of single family homes and apartments up to and including 4 stories) HEAVY, HIGHWAY AND MARINE CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.60 for calendar year 2019 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate,if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/04/2019
1	01/11/2019
2	04/05/2019

ASBE0006-006 06/01/2015

	Rates	Fringes
HAZARDOUS MATERIAL HANDLER (Includes preparation, wetting, stripping, removal scrapping, vacuuming, bagging & disposing of all insulation materials, whether they contain asbestos or not, from		

mechanical systems).....$ 31.63 18.30

ASBE0006-008 09/01/2018

	Rates	Fringes
Asbestos Worker/Insulator Includes application of all insulating materials, protective coverings, coatings & finishes to all types of mechanical systems.	$ 42.38	28.75

BOIL0029-001 01/01/2017

	Rates	Fringes
BOILERMAKER	$ 42.42	24.92

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* BRRI0003-001 12/01/2018

	Rates	Fringes
Bricklayer, Stonemason, Pointer, Caulker & Cleaner	$ 39.48	26.85

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* BRRI0003-002 03/01/2019

	Rates	Fringes
Marble Setter, Terrazzo Worker & Tile Setter	$ 39.26	27.92

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* BRRI0003-003 03/01/2019

	Rates	Fringes
Marble, Tile & Terrazzo Finisher	$ 33.00	26.73

CARP0094-001 06/05/2017

	Rates	Fringes
CARPENTER (Includes Soft Floor Layer)	$ 35.28	27.15
Diver Tender	$ 36.28	27.15
DIVER	$ 47.08	27.15
Piledriver	$ 35.28	27.15
WELDER	$ 36.28	27.15

FOOTNOTES:

When not diving or tending the diver, the diver and diver tender shall receive the piledriver rate. Diver tenders shall receive $1.00 per hour above the pile driver rate when tending the diver.

Work on free-standing stacks, concrete silos & public utility electrical power houses, which are over 35 ft. in height

when constructed: $.50 per hour additional.

Work on exterior concrete shear wall gang forms, 45 ft. or more above ground elevation or on setback: $.50 per hour additional.

The designated piledriver, known as the "monkey": $1.00 per hour additional.

CARP1121-002 10/01/2017

	Rates	Fringes
MILLWRIGHT	$ 36.85	27.50

ELEC0099-002 06/01/2018

	Rates	Fringes
ELECTRICIAN	$ 39.21	57.24%
Teledata System Installer	$ 29.41	13.10%+14.15

FOOTNOTES:

Work of a hazardous nature, or where the work height is 30 ft. or more from the floor, except when working OSHA-approved lifts: 20% per hour additional.

Work in tunnels below ground level in combined sewer outfall: 20% per hour additional.

ELEV0039-001 01/01/2019

	Rates	Fringes
ELEVATOR MECHANIC	$ 51.56	33.705+A+B

FOOTNOTES:

A. PAID HOLIDAYS: New Years Day; Memorial Day; Independence Day; Labor Day; Veterans' Day; Thanksgiving Day; the Friday after Thanksgiving Day; and Christmas Day.

B. Employer contributes 8% basic hourly rate for 5 years or more of service of 6% basic hourly rate for 6 months to 5 years of service as vacation pay credit.

ENGI0057-001 12/01/2018

	Rates	Fringes
Operating Engineer: (power plants, sewer treatment plants, pumping stations, tunnels, caissons, piers, docks, bridges, wind turbines, subterranean &		

other marine and heavy
construction work)

GROUP 1	$ 39.90	25.85+a
GROUP 2	$ 38.90	25.85+a
GROUP 3	$ 34.52	25.85+a
GROUP 4	$ 31.67	25.85+a
GROUP 5	$ 37.95	25.85+a
GROUP 6	$ 28.75	25.85+a
GROUP 7	$ 22.75	25.85+a
GROUP 8	$ 34.60	25.85+a
GROUP 9	$ 38.52	25.85+a

a. BOOM LENGTHS, INCLUDING JIBS:

150 feet and over + $ 2.00
180 feet and over + $ 3.00
210 feet and over + $ 4.00
240 feet and over + $ 5.00
270 feet and over + $ 7.00
300 feet and over + $ 8.00
350 feet and over + $ 9.00
400 feet and over + $10.00

a. PAID HOLIDAYS:
New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, Christmas Day. a: Any employee who works 3 days in the week in which a holiday falls shall be paid for the holiday.

a. FOOTNOTES:
Hazmat work: $2.00 per hour additional.
Tunnel/Shaft work: $5.00 per hour additional.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, lighters, boom trucks and derricks

GROUP 2: Digging machine, Ross Carrier, locomotive, hoist, elevator, bidwell-type machine, shot & water blasting machine, paver, spreader, graders, front end loader (3 yds. and over), vibratory hammer & vacuum truck, roadheaders, forklifts, economobile type equipment, tunnel boring machines, concrete pump and on site concrete plants.

GROUP 3: Oilers on cranes.

GROUP 4: Oiler on crawler backhoe.

GROUP 5: Bulldozer, bobcats, skid steer loader, tractor, scraper, combination loader backhoe, roller, front end loader (less than 3 yds.), street and mobile-powered sweeper (3-yd. capacity), 8-ft. sweeper minimum 65 HP).

GROUP 6: Well-point installation crew.

GROUP 7: Utility Engineers and Signal Persons

GROUP 8: Heater, concrete mixer, stone crusher, welding

machine, generator and light plant, gas and electric driven pump and air compressor.

GROUP 9: Boat & tug operator.

ENGI0057-002 12/01/2018

	Rates	Fringes
Power Equipment Operator (highway construction projects; water and sewerline projects which are incidental to highway construction projects; and bridge projects that do not span water)		
GROUP 1	$ 34.05	25.85+a
GROUP 2	$ 28.75	25.85+a
GROUP 3	$ 22.75	25.85+a
GROUP 4	$ 29.33	25.85+a
GROUP 5	$ 33.03	25.85+a
GROUP 6	$ 32.65	25.85+a
GROUP 7	$ 28.30	25.85+a
GROUP 8	$ 29.68	25.85+a
GROUP 9	$ 31.63	25.85+a

a. FOOTNOTE: a. Any employee who works three days in the week in which a holiday falls shall be paid for the holiday.

a. PAID HOLIDAYS: New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day & Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Digging machine, crane, piledriver, lighter, locomotive, derrick, hoist, boom truck, John Henry's, directional drilling machine, cold planer, reclaimer, paver, spreader, grader, front end loader (3 yds. and over), vacuum truck, test boring machine operator, veemere saw, water blaster, hydro-demolition robot, forklift, economobile, Ross Carrier, concrete pump operator and boats

GROUP 2: Well point installation crew

GROUP 3: Utlity engineers and signal persons

GROUP 4: Oiler on cranes

GROUP 5: Combination loader backhoe, front end loader (less than 3 yds.), forklift, bulldozers & scrapers and boats

GROUP 6: Roller,skid steer loaders, street sweeper

GROUP 7: Gas and electric drive heater, concrete mixer, light plant, welding machine, pump & compressor

GROUP 8: Stone crusher

GROUP 9: Mechanic & welder

ENGI0057-003 12/01/2018

BUILDING CONSTRUCTION

	Rates	Fringes
Power Equipment Operator		
GROUP 1	$ 39.17	25.85+a
GROUP 2	$ 38.17	25.85+a
GROUP 3	$ 37.95	25.85+a
GROUP 4	$ 33.95	25.85+a
GROUP 5	$ 31.10	25.85+a
GROUP 6	$ 37.25	25.85+a
GROUP 7	$ 36.82	25.85+a
GROUP 8	$ 34.14	25.85+a

a.BOOM LENTHS, INCLUDING JIBS:

150 ft. and over: + $ 2.00
180 ft. and over: + $ 3.00
210 ft. and over: + $ 4.00
240 ft. and over: + $ 5.00
270 ft. and over: + $ 7.00
300 ft. and over: + $ 8.00
350 ft. and over: + $ 9.00
400 ft. and over: + $10.00

a. PAID HOLIDAYS: New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day & Christmas Day. a: Any employee who works 3 days in the week in which a holiday falls shall be paid for the holiday.

a. FOOTNOTE: Hazmat work: $2.00 per hour additional.
Tunnel/Shaft work: $5.00 per hour additional.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, lighters, boom trucks and derricks.

GROUP 2: Digging machine, Ross carrier, locomotive, hoist, elevator, bidwell-type machine, shot & water blasting machine, paver, spreader, front end loader (3 yds. and over), vibratory hammer and vacuum truck

GROUP 3: Telehandler equipment, forklift, concrete pump & on-site concrete plant

GROUP 4: Fireman & oiler

GROUP 5: Oiler on crawler backhoe

GROUP 6: Bulldozer,skid steer loaders,bobcats, tractor, grader, scraper,combination loader backhoe, roller, front end loader (less than 3 yds.), street and mobile powered sweeper (3 yds. capacity), 8-ft. sweeper (minimum 65 hp)

GROUP 7: Well point installation crew

GROUP 8: Heater, concrete mixer, stone crusher, welding machine, generator for light plant, gas and electric driven pump & air compressor

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IRON0037-001 09/16/2017

	Rates	Fringes
IRONWORKER	$ 34.89	26.87

LABO0271-001 06/05/2016

BUILDING CONSTRUCTION

	Rates	Fringes
LABORER		
GROUP 1	$ 29.20	23.80
GROUP 2	$ 29.45	23.80
GROUP 3	$ 29.95	23.80
GROUP 4	$ 30.20	23.80
GROUP 5	$ 31.20	23.80

LABORERS CLASSIFICATIONS

GROUP 1: Laborer, Carpenter Tender, Mason Tender, Cement Finisher Tender, Scaffold Erector, Wrecking Laborer, Asbestos Removal [Non-Mechanical Systems]

GROUP 2: Asphalt Raker, Adzemen, Pipe Trench Bracer, Demolition Burner, Chain Saw Operator, Fence & Guard Rail Erector, Setter of Metal Forms for Roadways, Mortar Mixer, Pipelayer, Riprap & Dry Stonewall Builder, Highway Stone Spreader, Pneumatic Tool Operator, Wagon Drill Operator, Tree Trimmer, Barco-Type Jumping Tamper, Mechanical Grinder Operator

GROUP 3: Pre-Cast Floor & Roof Plank Erectors

GROUP 4: Air Track Operator, Hydraulic & Similar Self-Powered Drill, Block Paver, Rammer, Curb Setter, Powderman & Blaster

GROUP 5: Toxic Waste Remover

LABO0271-002 06/05/2016

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
LABORER		
COMPRESSED AIR		
Group 1	$ 46.63	21.80
Group 2	$ 36.15	21.80
Group 3	$ 48.63	21.80

FREE AIR		
Group 1	$ 38.70	21.80
Group 2	$ 36.15	21.80
Group 3	$ 40.70	21.80
LABORER		
Group 1	$ 29.20	21.80
Group 2	$ 29.45	21.80
Group 3	$ 30.20	21.80
Group 4	$ 22.70	21.80
Group 5	$ 31.20	21.80
OPEN AIR CAISSON, UNDERPINNING WORK AND BORING CREW		
Bottom Man	$ 35.20	21.80
Top Man & Laborer	$ 34.25	21.80
TEST BORING		
Driller	$ 35.65	21.80
Laborer	$ 34.25	21.80

LABORER CLASSIFICATIONS

GROUP 1: Laborer; Carpenter tender; Cement finisher tender; Wrecking laborer; Asbestos removers [non-mechanical systems]; Plant laborer; Driller in quarries

GROUP 2: Adzeperson; Asphalt raker; Barcotype jumping tamper; Chain saw operators; Concrete and power buggy operator; Concrete saw operator; Demolition burner; Fence and guard rail erector; Highway stone spreader; Laser beam operator; Mechanical grinder operator; Mason tender; Mortar mixer; Pneumatic tool operator; Riprap and dry stonewall builder; Scaffold erector; Setter of metal forms for roadways; Wagon drill operator; Wood chipper operator; Pipelayer; Pipe trench bracer

GROUP 3: Air track drill operator; Hydraulic and similar powered drills; Brick paver; Block paver; Rammer and curb setter; Powderperson and blaster

GROUP 4: Flagger & signaler

GROUP 5: Toxic waste remover

LABORER - COMPRESSED AIR CLASSIFICATIONS

GROUP 1: Mucking machine operator, tunnel laborer, brake person, track person, miner, grout person, lock tender, gauge tender, miner: motor person & all others in compressed air

GROUP 2: Change house attendant, powder watchperson, top person on iron

GROUP 3: Hazardous waste work within the "HOT" zone

LABORER - FREE AIR CLASSIFICATIONS

GROUP 1: Grout person - pumps, brake person, track person, form mover & stripper (wood & steel), shaft laborer,

laborer topside, outside motorperson, miner, conveyor operator, miner welder, heading motorperson, erecting operator, mucking machine operator, nozzle person, rodperson, safety miner, shaft & tunnel, steel & rodperson, mole nipper, concrete worker, form erector (wood, steel and all accessories), cement finisher (this type of work only), top signal person, bottom person (when heading is 50' from shaft), burner, shield operator and TBM operator

GROUP 2: Change house attendant, powder watchperson

GROUP 3: Hazardous waste work within the "HOT" zone

PAIN0011-005 06/01/2018

	Rates	Fringes
PAINTER		
Brush and Roller	$ 33.62	21.05
Epoxy, Tanks, Towers, Swing Stage & Structural Steel	$ 35.62	21.05
Spray, Sand & Water Blasting	$ 36.62	21.05
Taper	$ 34.37	21.05
Wall Coverer	$ 34.12	21.05

PAIN0011-006 06/01/2018

	Rates	Fringes
GLAZIER	$ 37.18	21.05

FOOTNOTES:

SWING STAGE: $1.00 per hour additional.

PAID HOLIDAYS: Labor Day & Christmas Day.

PAIN0011-011 06/01/2018

	Rates	Fringes
Painter (Bridge Work)	$ 49.75	21.05

PAIN0035-008 06/01/2011

	Rates	Fringes
Sign Painter	$ 24.79	13.72

PLAS0040-001 06/04/2018

BUILDING CONSTRUCTION

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 34.30	27.05

FOOTNOTE: Cement Mason: Work on free swinging scaffolds under 3 planks width and which is 20 or more feet above ground and any offset structure: $.30 per hour additional.

PLAS0040-002 07/23/2018

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 31.20	22.10

PLAS0040-003 07/02/2018

	Rates	Fringes
PLASTERER	$ 35.65	27.40

PLUM0051-002 09/01/2018

	Rates	Fringes
Plumbers and Pipefitters	$ 42.04	29.45

ROOF0033-004 12/01/2018

	Rates	Fringes
ROOFER	$ 36.75	26.12

SFRI0669-001 04/01/2017

	Rates	Fringes
SPRINKLER FITTER	$ 43.92	21.49

SHEE0017-002 12/01/2018

	Rates	Fringes
Sheet Metal Worker	$ 36.13	35.13

TEAM0251-001 05/01/2018

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
TRUCK DRIVER		
GROUP 1	$ 27.21	25.7525+A+B+C
GROUP 2	$ 27.36	25.7525+A+B+C
GROUP 3	$ 27.41	25.7525+A+B+C
GROUP 4	$ 27.46	25.7525+A+B+C
GROUP 5	$ 27.56	25.7525+A+B+C
GROUP 6	$ 27.96	25.7525+A+B+C
GROUP 7	$ 28.16	25.7525+A+B+C
GROUP 8	$ 27.66	25.7525+A+B+C
GROUP 9	$ 27.91	25.7525+A+B+C

GROUP 10.....$ 27.71 25.7525+A+B+C

FOOTNOTES:

A. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, plus Presidents' Day, Columbus Day, Veteran's Day & V-J Day, providing the employee has worked at least one day in the calendar week in which the holiday falls.

B. Employee who has been on the payroll for 1 year or more but less than 5 years and has worked 150 Days during the last year of employment shall receive 1 week's paid vacation; 5 to 10 years - 2 weeks' paid vacation; 10 or more years - 3 week's paid vacation.

C. Employees on the seniority list shall be paid a one hundred dollar ($100.00) bonus for every four hundred (400) hours worked, up to a maximum of five hundred dollars ($500.00)

All drivers working on a defined hazard material job site shall be paid a premium of $2.00 per hour over applicable rate.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Pick-up trucks, station wagons, & panel trucks

GROUP 2: Two-axle on low beds

GROUP 3: Two-axle dump truck

GROUP 4: Three-axle dump truck

GROUP 5: Four- and five-axle equipment

GROUP 6: Low-bed or boom trailer.

GROUP 7: Trailers when used on a double hook up (pulling 2 trailers)

GROUP 8: Special earth-moving equipment, under 35 tons

GROUP 9: Special earth-moving equipment, 35 tons or over

GROUP 10: Tractor trailer

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

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide

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

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

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

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates

the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

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

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

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

WAGE DETERMINATION APPEALS PROCESS

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

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

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

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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

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

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

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

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

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END OF GENERAL DECISION