READ THIS FIRST

Notice to the Design Engineer, please refer to the Port of Seattle, Facilities and Infrastructure standards for reference before editing this specification.

This Project Spec Document may need additional modifications to suit your project. It is recommended that you proofread each section, paying attention to any “Notes” boxes such as this one--you should remove these “Notes” sections as you go. Also, do a search for all bracket characters “ [ ] “ as they are used to show you areas containing options or project specific details (you can use Microsoft Word’s Find feature {Ctrl-F} to jump to an open bracket “ [ “ character quickly). Again, these bracket characters should be removed.

It is important that every paragraph be numbered to allow for easy referencing. If you use the document’s built in styles and formatting your outline should be fine (turn on the formatting toolbar by going to View > Toolbars > Formatting). Most paragraphs will use the style “Numbered Material” and can be promoted (Shift) or demoted (Shift-Tab).

You should not have to manually enter extra spaces, carriage returns or outline characters such as A, B, C, or 1.01, 1.02; the formatting will do this for you. The entire document is 11 pt. Arial. If you paste items in, you may need to reapply the “Numbered Material” format.

1. GENERAL
   1. SUMMARY OF WORK
      1. The extent and location of “Access Control Alarm Monitoring System” Work is shown in the Contract Documents. This Section includes general requirements for accomplishing Access Control Alarm Monitoring System Work as specified herein and indicated on the Drawings.
      2. System Description

Engineer shall edit to fit project requirements.

* + - 1. Access Control and Alarm Monitoring System
         1. The ACS (Access Control System) is the equipment, components and devices necessary to manage the flow of data from airport systems and the accurate conveyance of that data to various operator interfaces.
         2. The ACS network is physically separate from other Local Area Networks (LAN’s) and fully integrates field devices, application architecture head ends (Servers) and Operator interface Terminals (workstations).
         3. ACS system components will be designed and installed to support the following:

Johnson Controls P2000 Access Control System

Genetec Security Center Video Management System

Zenitel Security Intercom System.

* + - * 1. The ACS is a server based system having Johnson Control Incorporated (JCI) P2000 Version 3.14 to control access and is maintained by POS Aviation Maintenance Electronics Shop. The primary ACS components consist of the following devices:

Network Gear: POS ACS system has standardized on CISCO hardware.

Network Security Controller: The POS has a sole source for the JCI CK721A Network Controller which is used as the interface between the JCI P2000 server and the RDR2SA terminal interface unit.

Power Supply: POS ACS system uses UL listed and approved Altronix power supply.

Door Interface Terminal: The POS has a sole source for the JCI RDR2SA which is used as a door interface Terminal

Card Readers: POS ACS system uses Idemia Morpho Access Sigma series (Multi & Extreme) and HID card readers to read the badges to access different terminals throughout our facility.

Security Intercoms: POS ACS system has a sole source for Zenitel IP intercom stations and TCIS-2 or TMIS-1 intercoms are used depending on the location.

Standard ACS Field equipment block diagram attached in the appendix describes how field device are connected to the door interface terminals. Those typical door configurations shown in the ACS Field equipment block diagram attached in the appendix illustrates typical wiring requirements. Project and AV-Security implementations will vary and must be specified in contract documents.

* + - * 1. The access control system shall control electric door locks and strikes, and other devices as shown on the Drawings.
  1. GOVERNING CODES, STANDARDS AND REFERENCES
     1. ANSI/TIA-607 (American National Standards Institute/Telecommunication Industry Association) - Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises
     2. 14 CFR (Code of Federal Regulations) 107.207 (Current Edition): Access Control System
     3. 47 CFR (Code of Federal Regulations) 15 (Current Edition): Radio Frequency Devices
     4. ISO (International Standards Organization) 7816 (Current Edition): Parts 1 - 4
     5. ISO (International Standards Organization) 14443A (Current Edition): Certifications Directory
     6. NEMA (National Electrical Manufacturers Association) ICS 4 (Current Edition): Application Guideline for Terminal Blocks
     7. NFPA (National Fire Protection Association) 101 (Current Edition): Code for Life Safety from Fire in Buildings and Structures
     8. NFPA (National Fire Protection Association) 262 - Standard Method of Test for Flame Travel and Smoke of Wires and Cables for Use in Air-Handling Spaces.
     9. SIA (Security Industry Association) AC-01-1996.10 (Current Version): Access Control Standard Protocol for the 26-bit Wiegand TM Reader Interface
     10. UL (Underwriters Laboratories) Inc.
     11. UL (Underwriters Laboratories) 294 (Current Edition): Standard for Access Control System Units
     12. UL (Underwriters Laboratories) 2043 (Current Edition): Standard for Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces
  2. SUBMITTALS
     1. Submit materials data in accordance with of Section 01 33 00 - Submittals. Furnish manufacturers’ technical literature, standard details, product specifications, and installation instructions.
     2. Submittals shall include the following:
        1. Product Data: Submit manufacturer’s catalog data showing electrical characteristics and connection requirements.
        2. Shop Drawings: Indicate connection requirements, including system wiring diagram. Contractor is responsible for the final wiring design.
        3. Provide a detailed schedule identifying portal (door) number, physical location, standalone access controller location, and installation schedule for replacement of new portal control installations for approval by the Port.
        4. Intake Sheet: Fill out Port of Seattle Intake Sheet for intercoms, card readers, and biometric readers installed.
        5. Test Procedures
        6. Test Reports
        7. Manufacturer's Field Reports: Indicate activities on site, adverse findings, and recommendations.
        8. Substitutions: Where items are not identified as sole source, substitutions may be permitted for named product. Refer to Section 01 25 00 - Substitutions.
        9. Project Record Documents: Record actual locations of security access equipment. Show the size and locations (dimensioned from column lines) of equipment and cabling; including number, type, and label of cables within pathways.

Engineer shall select proper Division 1 cross reference to fit project requirements.

* + - 1. Operations and Maintenance Manual: In addition to requirements specified in [Section 01 78 23.13 – Aviation Operations and Maintenance Documentation][Section 01 78 23 – Seaport Operations and Maintenance Documentation] include the following:
         1. Manufacturer’s catalog and technical data sheets; spare parts list; and installation, maintenance, troubleshooting and repair instructions. Test methods and results.
      2. Warranty: Three years, free of defects in workmanship or parts.
  1. QUALITY CONTROL AND ASSURANCE
     1. As specified in Section 01 45 16.13 – Contractor Quality Control.
     2. Equipment shall be UL-listed, or approved by the AHJ if UL listing is not available.
     3. Contractor shall have performed a minimum of three similar installations.
     4. Manufacturers of access control devices shall have been engaged in manufacturing of these devices for a minimum of five years.
     5. Provide wiring materials located in plenums with peak optical density not greater than 0.5, average optical density not greater than 0.15, and flame spread not greater than 5 feet when tested in accordance with NFPA 262.
  2. FIELD MEASUREMENTS
     1. Verify field measurements prior to fabrication.
  3. PROJECT COORDINATION
     1. Verification: Coordinate with the Engineer for correct locations, sizes, communication circuits, and power loading requirements for functional and operational support of the access control system.
     2. Coordinate the access control system devices and cabling with the following:
        1. Fire alarm addressable relay modules installed in the Equipment Room to release access control doors during fire alarm condition.
  4. PRODUCT DELIVERY, STORAGE AND HANDLING
     1. Delivery
        1. Do not deliver products to the site until protected storage space is available. Coordinate delivery of materials with scheduled installation date to allow minimum storage time at jobsite.
        2. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels (name of the manufacturer, product name, type, grade, UL classification, etc.) intact.
        3. Replace materials damaged during shipping at no cost to the Port of Seattle.
     2. Storage
        1. Store materials in clean, dry, ventilated space free from temperature and humidity conditions (as recommended by manufacturer) and protected from exposure to harmful weather conditions.
        2. Comply with manufacturer's requirements for each product. Comply with recommended procedures, precautions or remedies as described in the Safety Data Sheets (SDS) as applicable.
        3. Maintain factory wrapping or provide a heavy canvas/plastic cover to protect units from dirt, water, construction debris, and traffic.
        4. Storage outdoors covered by rainproof material is not acceptable.
        5. Provide heat where required to prevent condensation or temperature related damage.
     3. Handling
        1. Handle in accordance with manufacturer's written instructions.
        2. Damaged equipment shall not be installed.

1. PRODUCTS

If only one product is acceptable (single or sole source product), obtain an approved Competition Waiver and submit to the CPO Construction, Contract Administrator. The language shall read as: “Manufacturer Name, Product # XXXXX, No Equal.” Refer to CPO-6 Competition Waiver Policy for more information.

If a Competition Waiver is not approved or more than one product is acceptable, this section must list a minimum of 2 products plus the language “Or Approved Equal,” along with salient characteristics. Refer to CPO Construction’s Salient Characteristics Guidelines for more information.

* 1. STANDALONE ACCESS CONTROLLER
     1. Manufacturer:
        1. Johnson Controls CK721A. This shall include the following items:
           1. Enclosure and Power Supply: JCI Cat No. 300-DIN-LG
           2. CK721-A network controller: JCI Cat No. CK721-A
           3. Mux: MHUBX8 (RS485 Hub with Cover)
           4. Lockable cover with tamper switch and 270 lock core.
        2. No substitutions.
  2. POWER SUPPLIES

Engineer shall coordinate Power supply requirements with AVM ET Shop and modify list below as required.

* + 1. Manufacturer:
       1. Altronix: Power Supply shall include the following items.
          1. Power Supply and Enclosure: MAXIMAL77FE
          2. Power Distribution Module: PD8ULCB
          3. Lockable cover with tamper switch and 270 lock core.
          4. Voltage Regulator: PDS8CBK1
       2. No Equal
  1. INTERFACE TERMINATION BOX (ITB) WITH TERMINAL STRIP
     1. Manufacturer:
        1. Johnson Controls Part number 11044936
           1. ITB features:

UL-rated NEMA 1 (for indoor installation) or UL-rated NEMA 4X (for outdoor installation) style metal cabinet designed for surface mounting

JCI Cat No S300-DIN-RDR2SA

Dimension: 12“x16“x6”

Lockable cover with tamper switch and 270 lock core.

Engineer shall coordinate I/O module requirements with AVM ET Shop and modify statement below as required.

I/O module: JCI Cat No S300-DIN-I8O4

* + - 1. No Equal
    1. ITB terminal strips shall be designed to operate with the standalone controller and the required portal devices.
  1. COMBINATION CONTACTLESS CARD READER/NUMERIC KEYPAD/BIOMETRIC (FINGERPRINT) READER
     1. Manufacturer/Model:

Engineer shall coordinate with Port AVM ET Shop and specify models to be used.

* + - 1. Safran Morpho Sigma Cat No MPH-AC003B
      2. Safran Morpho Sigma Extreme series Cat No MPH-AC002B
      3. No Equal
    1. Card reader with pinpad shall be able to read existing STIA proximity technology cards. The readers shall be dual identification input technology capable (proximity and personal identification number PIN) and suitable for access control, alarm management, and/or relay control.

Modify to fit the project requirements.

* + 1. The readers shall be capable of independent operation (keypad only, card only) or in a multifunction mode where two valid IDs (PIN and proximity card) are required. The readers shall recognize multiple encoding schemes. Reader shall be weatherproof. The reader shall be powered by 10 to 28.5 VDC, supplied by the controller or reader interface, and also compatible with PoE+ switches.
    2. Communications protocol shall be compatible between the standalone access controller or reader interface and its associated reader.
    3. The proximity reader shall have a read range of 5 to 8 inches. The reader shall be able to be mounted with its sides against metal door or window frames. The reader can have a short or long read range and be capable of either uni-directional or bi-directional operation.
    4. Reader display and indicators: Reader shall have a visual indicator display. When a valid proximity card is presented to the reader, the normally red LED shall flash green and a beeper shall sound.

Engineer shall coordinate with Port AVM ET Shop and specify color to be used.

* + 1. Color: [insert desired color]
    2. Reader response: Reader shall respond to passage requests by generating a signal to the standalone access controller or reader interface.
       1. Response time shall be 100 milliseconds or less from the time the reader finishes reading the card information and entry authorization is completed until a visual indicator is illuminated.
    3. Operating temperature shall be minus 22 degrees F to plus 150 degrees
    4. The proximity card shall be read when presented in any orientation or at any angle to the surface.
  1. COMBINATION CARD READER AND PIN PAD
     1. Acceptable Manufacturers:
        1. HID
        2. Honeywell
        3. Or Approved Equal
     2. Specifications:
        1. Keypad: four rows by three columns
        2. Maximum dimensions: 3.3”x4.8”x1.1”
        3. Power: 5-16VDC
        4. IP65 rating (provide gaskets as necessary)
        5. Operating temperature: -31° to 150°F
        6. Operating humidity: 5% to 95% relative humidity, non-condensing
        7. Transmit frequency: 13.56MHz
        8. EAL5+ certified secure element hardware, tamper proof
        9. Compatible with Security Industry Association Open Supervised Device Protocol standard.
     3. Unit shall be capable of authenticating for card read only, PIN only, or both.
  2. AUDIO/VISUAL (A/V) SIGNAL DEVICE
     1. Acceptable manufacturers:
        1. Gentex Cat No. WGEC24-75PWW with Cat No. GOE-PW
        2. System Sensor
        3. Edwards Signaling
        4. Federal signaling
        5. Or Approved Equal
     2. A/V indicator shall be capable of:
        1. Devices shall activate upon door alarm condition, creating an audible and visible indication as described in the Contract Documents.
        2. Devices shall be capable of being silenced remotely via the ACS.
        3. Upon acknowledgement of the alarm by the ACS operator, the device shall reset.
        4. Devices shall be individually controllable for strobe and audio. The horn will activate and then shut off, while the strobe will remain on.
     3. A/V indicator shall be a low-profile strobe and shall be supplied with all mounting hardware. It shall not be marked “FIRE”.
        1. A/V indicators located outdoors or in environmentally uncontrolled areas shall be rated NEMA 4X device for weather resistance.
        2. A/V indicator bodies shall be white and unmarked.
        3. Strobe lens: emergency door A/V indicator strobe lens shall be clear.
        4. Strobe shall not require tools for strobe tube replacement.
        5. Strobe mechanism output: emergency door A/V indicator strobe output shall be at least 15 candela.
        6. Contractor shall determine correct type of mount for strobe location.
        7. A/V indicator sounder/horn outputs shall be at least 90 dBA at a distance of 1 meter.
  3. BALANCED MAGNETIC SWITCH/DOOR POSITION SWITCH
     1. Acceptable manufacturers:
        1. Sentrol
        2. Securitron
        3. Honeywell
        4. Or Approved Equal
     2. System interface: BMS/DPS (Balanced Magnetic Switch/Door Position Switch) shall interface and be compatible with standalone access controller or reader interface.
     3. The BMS/DPS shall detect a ½ inch or less of separating relative movement between the magnet and the switch housing.
        1. Upon detecting such movement, it shall transmit an alarm signal to the standalone access controller or door controller.
     4. BMS/DPS subassemblies: the BMS/DPS shall consist of a switch assembly and an actuating magnetic assembly.
        1. The magnet assembly shall house the actuating magnet.
        2. The switch mechanism shall comprise three independent form-c triple- biased reed contacts wired in single pull double throw (SPDT) configuration.
        3. Switch shall have a supervised loop.
        4. Switches shall be rated for a minimum lifetime of 10,000,000 operations.
     5. Housing: the housings of switches and magnets shall be made of nonferrous metal and shall be weatherproof.
        1. Housing (except concealed) shall have three feet of stainless steel armored cable to protect leads.
     6. Spacers: spacers shall be of nonferrous material.
  4. ELECTRIC LATCH SET
     1. Provide electric latch set in accordance with this Section, Division 8 - OPENINGS, and other Contract Documents.
     2. Electric latch set shall have a request-to-exit switch that releases the lock mechanism when initiating an opening on the secured side of the portal.
  5. ELECTRICAL POWER TRANSFER HINGE
     1. Refer to Division 08 – OPENINGS.
  6. PANIC BAR
     1. Refer to Division 8 – OPENINGS.
  7. INTERCOM STATION
     1. Intercoms shall be IP based and compatible with the existing Port digital intercom system, which is a Zenitel/Alphacom XE-series audio server.
        1. ZENITEL TMIS-1
        2. ZENITEL TCIS-2
        3. NoEqual
     2. Description:
        1. Faceplate: 0.12” PMMA, color printed on back side
        2. Size: 7.1” x 4.7” x 3.3”
  8. REQUEST TO EXIT SWITCH (REX)

CHECK WITH AV SECURITY PRIOR TO SPECIFYING REX

* + 1. Request to exit switches shall be incorporated into electrified latch sets.
    2. Use of pushbutton REXs and passive infrared REX devices shall be approved by POS ET.
  1. DOOR HARDWARE
     1. Door hardware required for access control on designated security portals as detailed in Division 8 – OPENINGS specifications and on the Contract Documents.
  2. RACEWAYS AND BOXES
     1. Conduit and junction boxes for security access portal control equipment shall be in accordance with Section 26 05 33 – Raceways and Boxes and other Contract Documents.
  3. CABLE
     1. See Section 26 05 23 – Control Signal Transmission Media.
     2. See Section 27 15 00 – Communications Horizontal Cabling.
  4. GROUNDING
     1. See section 26 05 26 – Grounding and Bonding for Electrical Systems.
     2. See section 27 05 26 – Grounding and Bonding for Communication Systems.

1. EXECUTION
   1. GENERAL
      1. Furnish and install products described in this Section, except where otherwise noted. Coordinate with the Engineer for schedule and delivery of products installed under this Section.
      2. Provide non-specialty fasteners required to install products in this Section (i.e., fasteners not normally included by the manufacturer for installation of a specific product).

Engineer shall revise statement below to fit project.

* + 1. Coordinate with the Engineer regarding final part lists of portals and portal hardware for compatibility of security access portal controls prior to delivery to the Port. Refer to Division 8 – OPENINGS.
  1. INSPECTION
     1. Inspect all work areas and inform Port of any discrepancies in the plans.
  2. INSTALLATION
     1. Provide security whenever an active access-controlled portal is in any way brought offline. Security personnel must be approved by the Port and must be present for the full duration of the portal downtime.
     2. Fabricate mounts, adapters and any other required equipment as necessary to fit existing conditions.
     3. Exposed fasteners shall be tamper resistant and shall match device finish.
     4. Provide a detailed schedule identifying portal (door) number, physical location, standalone access controller location, and installation schedule for replacement of new portal control installations for approval by the Port.
     5. Interface Termination Box (ITB)
        1. Provide a new ITB with a terminal strip at each designated portal location to allow connectivity and power from the standalone controller to the door devices as shown on the Contract Drawings.
        2. Install ITB on the secure side of the portal, above the level of the ceiling, or as indicated on the drawings not higher than 10’ AFF (above finished floor). In plenum areas, install ITB in a plenum- rated enclosure.
     6. Power Supplies
        1. For new access portals: Provide new power supplies.
           1. Power supplies connected to emergency exits will have failsafe interface to immediately unlock door upon signal from fire system.
           2. New doors will be individually fused and the power supply will be configured with 25% spare capacity.
           3. The number of power supplies will be as required for complete system operation.
     7. Install new readers for new access-controlled portals as shown on the Contract Drawings.
        1. Provide new data and power cable for new doors as shown on the Contract Drawings.
        2. Provide card readers 42” from floor to center and on latch/strike side of door unless shown or noted otherwise on the Contract Drawings.
        3. Install access control field devices according to manufacturer’s and Engineer’s instructions at portals shown on the Contract Drawings.
        4. Securely attach each access control field devices plumb and true on the surface they are to be mounted on. Tamper screws matching other device screws shall be used on card readers. Furnish screws and other items necessary for card reader installation unless included as part of the manufacturer’s package.
     8. Card Readers
        1. Card reader mounting method:
           1. Mount card reader with its sides against metal door or window frames.
           2. Mount the terminals flush with finished surface.
           3. Exposed fasteners shall be tamper resistant.
           4. Mount card readers on new back boxes.
     9. Audio/visual (A/V) signal device
        1. A/V mounting method:
           1. A/V devices shall be flush mounted.
           2. A/V devices shall be mounted on new back boxes.
     10. Door position switch (DPS)
         1. The installed DPS device shall consist of two units mounted adjacent to each other in door and frame:
            1. Mount switch unit, containing the magnetic switch, on the door frame.
            2. Mount magnet unit, containing the permanent magnet, on the door.
            3. Mount the DPS to sense movement of the door (or of either door leaf in double door configuration).
         2. Coordinate DPS installation with installation of card reader.
     11. Electric latch
         1. Install the electric latch set according to manufacturer’s instructions.
         2. Electric latch set shall be configured to fail secure.
         3. Latch set configurations will be tested by the Port or a Port-designated contractor for correct actuation with the REX and card reader equipment and failsafe operation.
     12. Panic bar
         1. For new doors: Install a non-latching release device that allows one-motion egress and meets the requirements of NFPA 101 for exit devices at emergency doors. Additional requirements in Division 8 – OPENINGS.
         2. For new doors having panic bar and using mortise latch retraction (MLR), MLR to be powered separately from Altronix power supply.
     13. Intercom Station
         1. Intercom stations shall be installed at access controlled doors.
         2. Intercom stations shall be installed on the latch/strike side of the door.
     14. Cable
         1. Contractor is responsible for final cable configuration, but representative cables are indicated on drawings.
         2. Provide cable quantities in accordance with the Contract Documents or as directed by the Port of Seattle.
  3. IDENTIFICATION
     + 1. Label Contractor-furnished equipment and cables as specified in Section 26 05 53 – Electrical Identification.
       2. Include label callouts and documentation on final as-built drawings.
  4. FIELD QUALITY CONTROL
     1. Coordinate tests and inspections with thePort. The Port Representative will witness all field tests. Performtests as specified in
        1. Section27 0500 – Common Work Results for Communications
        2. Section 27 15 00 – Communications Horizontal Cabling
     2. Cabling
        1. Coordinate with Port ICT regarding Port cable backbone cross-connectivity completion, which is a prerequisite to complete circuit testing.
        2. Test new ACS extension cabling as specified in
           1. Section 26 05 23 – Control Signal Transmission Media
           2. Section 27 15 00 – Communications Horizontal Cabling
           3. Tests will be repeated from the opposite end of the Owner ACS when data transmission is two-way.
        3. Test for signal continuity:
           1. From each access control portal device to the interface terminal block above each access portal
           2. From the standalone controller cable termination to the interface terminal block above each access portal
     3. Access control equipment
        1. Perform device-level functional testing on equipment, devices, and components to verify proper installation prior to acceptance of the installation by the Engineer.
        2. Verify that power circuits meet the equipment requirements and each ACS field device can be powered up in the field.
        3. Configure the remote standalone controller and network switch, and conduct performance verification (operational) testing on the completed data circuits.
        4. DPSs will be tested by opening the door and ensuring that an alarm has been annunciated at the central processor alarm annunciation display.
     4. Document field test results. Correct any detected deficiencies. Retest and document results. Submit results in writing to Resident Engineer.
     5. Make changes to or replace equipment that does not meet tests conducted by the Owner or an Owner-designated contractor.
  5. COMMISSIONING
     1. Commissioning shall be performed in accordance with the requirements identified in Section 01 91 00 - Commissioning.
     2. Refer to:
        1. For cable testing requirements:
           1. Section 26 05 23 – Control Signal Transmission Media
           2. Section 27 15 00 – Communications Horizontal Cabling
        2. For functional device testing requirements:
           1. Section 28 13 00 – Access Control Alarm Monitoring System
           2. Section 01 91 00 – Commissioning
        3. Any deficiencies in the Contractor’s installation or work shall be immediately corrected at no further cost to the Port.
     3. The Contractor shall not hand over the installation to the Engineer for commissioning until inspection and testing requirements are completed in accordance with this section, Divisions 27 and 28 specifications, and the following general requirements:
        1. ACS components have been installed, and have been inspected and approved by the Resident Engineer.
        2. A visual inspection of the ACS components has been conducted to ensure that defective equipment items have not been installed and that there are no loose connections.
        3. System wiring has been tested and verified by the Contractor as correctly connected as indicated on the Contractor’s approved shop drawings.
        4. System grounding and transient protection systems have been verified as properly installed and connected as indicated on the Contractor’s approved shop drawings.
        5. Power supplies to be connected to ACS equipment have been verified as the correct voltage, phasing, and frequency.
        6. Satisfaction of the above requirements shall not relieve the Contractor of responsibility for incorrect installations or collateral damage as a result of Contractor work/equipment.

1. MEASUREMENT AND PAYMENT
   1. GENERAL
      1. No separate measurement or payment will be made for the Work required by this section. The cost for this portion of the Work will be considered incidental to, and included in the payments made for the applicable bid items in the [Schedule of Unit Prices] [Lump Sum price bid for the Project].

End of Section

Revision History:

10/15/2014 New Section, Added Sole Source and Salient Characteristics Note to Part 2

01/29/2015 Revised Sole Source

12/04/18 Renamed Section, Revised content to match current standard

02/25/22 Revised with content from F&I, and for clarity

09/21/23 Revised O&M requirements, updated Part 2 per AVM