

PURCHASING DEPARTMENT DIVISION OF BUDGET & FINANCE

PUR-1410 ADDENDUM NO. 4 INVITATION TO BID

HAGERSTOWN REGIONAL AIRPORT TERMINAL BUILDING EXPANSION

DATE: Wednesday, June 12, 2019

BIDS DUE: Wednesday, June 26, 2019 (*Revised Date – via Addendum No. 3*) **2:00 P.M., (EDST)**

To Bidders:

This Addendum is hereby made a part of the Contract Documents on which all bids will be based and is issued to correct and clarify the original documents.

Please acknowledge receipt of this Addendum at the appropriate space on the Proposal Form. This Addendum consists of Sixteen (16) pages and listed attachments.

NOTE: All Bidders must enter the Washington County Administration Complex through either the front door at the 100 West Washington Street entrance or through the rear entrance (w/blue canopy roof), which is handicap accessible, and must use the elevator to access the Purchasing Department to submit their proposal and/or to attend the Pre-Proposal Conference. Alternate routes are controlled by a door access system. Washington County Government has announced new security protocols being implemented at the Washington County Administration Complex at 100 West Washington Street, Hagerstown. The new measures took effect Tuesday, February 14, 2017. The general public will be subject to wand search and will be required to remove any unauthorized items from the building prior to entry. Prohibited items include, but are not limited to: Weapons of any type; Firearms, ammunition and explosive devices; Cutting instruments of any type - including knives, scissors, box cutters, work tools, knitting needles, or anything with a cutting edge, etc.; Pepper spray, mace or any other chemical defense sprays; and Illegal substances.

A. <u>REVISIONS TO SPECIFICATIONS:</u>

- 1. SECTION 01 21 00 ALLOWANCES- ADD the entirety of the attached section to the project manual.
- 2. SECTION 05 12 00 STRUCTURAL STEEL FRAMING- ARTICLE 1.7 QUALITY ASSURANCES; REVISE Article as follows:

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- A. Fabricator Qualifications: A qualified fabricator that participates in the AISC Quality Certification Program and is designated an AISC-Certified Plant, Category BU.
- B. Installer Qualifications: A qualified installer who participates in the AISC Quality Certification Program and is designated an AISC-Certified Erector, Category CSE or have a minimum 10 years of steel erection experience.
- C. Shop-Painting Applicators: Qualified according to AISC's Sophisticated Paint Endorsement P1 or SSPC QP 3, "Standard Procedure for Evaluating Qualifications of Shop Painting Applicators."
- D. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code Steel."
- E. Comply with applicable provisions of the following specifications and documents:
 - 1. AISC 303 "Code of Standard Practice for Steel Buildings and Bridges."
 - a. Section 3.1.2 and Section 3.3 is hereby modified by deletion of the "Commentary."
 - b. Section 3.3 is hereby modified by deletion as follows: "When discrepancies exist between structural Design Drawings and the architectural, electrical, or mechanical Design Drawings or Design Drawings for other trades, the structural Design Drawings shall govern."
 - c. Section 4.4 is hereby modified by deletion of the following: "These drawings shall be returned to the Fabricator within 14 calendar days." Also delete "Commentary" in same section.
 - 2. AISC 360 -16- "Specification for Structural Steel Buildings" dated March 9, 2005.
 - 3. RCSC's "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts."
- F. Preinstallation Conference: Conduct conference at Project site.
- 3. SECTION 06 40 00 INTERIOR ARCHITECTUAL WOODWORK- ADD the entirety of the attached section to the project manual.
- 4. SECTION 06 41 00 CUSTOM CASEWORK- ADD the entirety of the attached section to the project manual.
- 5. SECTION 08 33 00 STEEL WEAVE METAL MESH GRILLE- ADD the entirety of the attached section to the project manual.
- 6. SECTION 08 41 00 ALUMINUM FRAMED STORE FRONT- ADD Article 2.2 as follows:
 - 2.2 NON-THERMAL INTERIOR STOREFRONT:
 - 1. Kawneer Company Inc.
 - 2. Trifab[™] 400 Framing System (Non-Thermal)
 - 3. System Dimensions: 1-3/4" x 4" (44.5 mm x 101.6 mm)
 - 4. Glass: Center Plane
- 7. SECTION 08 44 13 GLAZED ALUMINUM CURTAIN WALL- REVISE ARTICLE 1.1 SUMMARY AS FOLLOWS:

- A. Work of this section includes: Materials, labor, equipment, services necessary to complete the installation of the curtain wall, as indicated on the Drawings and or specified herein including the following:
 - 1. All exterior curtainwall and window wall furnished and installed as shown on drawings, specified in this section and designated in the AAMA MCWM-1 "Metal Curtainwall Manual".
 - 2. Curtain Wall at Stair Enclosure: Curtain wall consisting of stick built aluminum frame system that is structurally glazed with fixed vision units and an exterior horizontal trim. Elevation includes a decal at the top of the enclosure that will be a silkscreen image applied to the glass or a surface mounted plaque attached to the curtain wall. The south and west elevations will have frosted glass.
 - 3. Curtain Wall with Fly-By: Curtain wall consisting of stick-built aluminum frame system that is four-sided structurally glazed with fixed vision units and exterior horizontal trim, and fixed exterior metal sun shades attached to the curtain wall. The ends of the curtain wall incorporate a fly-by where a portion of the wall cantilevers past the corners.
 - 4. Sloped Curtain Wall: Consists of a sloped stick-built aluminum frame that is structurally glazed with exterior horizontal trim. Includes intermediate lateral connections at mid span. System will have integrated pocket shades and tracks at locations designated by the architect.
 - 5. All labor, materials, tools, equipment and services needed to furnish and install curtain wall.
 - 6. Components furnished with installed curtain wall.
 - 7. Installation accessories furnished and installed.
 - 8. Glass and glazing in conjunction with the work of this Section.
 - 9. All necessary steel or aluminum members where required to support, strengthen and or reinforce aluminum members.
 - 10. Sealants, caulking joint fillers, gaskets, fasteners, vents and weeps, weep tubes, bellows, closures, gutters, end dams, flashings, trim, as shown or as required in conjunction with the system or to join the system to adjacent construction.
 - 11. Curtain wall anchors at floor slab edges, reinforcement, and anchor attachments to the building structure. Anchor may be placed at the face of slab where a top of slab anchor is not possible. Provide layouts, details and requirements for anchorage points for approval by the Structural Engineer.
 - 12. Two continuous lines of sealant shall be used throughout.
 - 13. Metal copings and coordination with counter flashings, waterproofing membranes and interfaces with roofing.
 - 14. Parapet at the Roof Curtain wall bypasses roof slab and should be configured in a manner that allows roofing/base flashing to be integrated into the wall. Include back up support, such as galvanized flashing, for the roofing.
 - 15. Provide painted aluminum closures at the interior side of the curtain wall at both the ceiling and floor interfaces to cover the setting space and fire safing.
 - 16. Safety glass where required by Code.

- 17. Thermal insulation and vapor barrier as shown on the drawings and specified herein.
- 18. Fire safing and smoke seal at the perimeter of the slab.
- 19. Shop drawings, engineering calculations, erection drawings, samples and conformance test data.
- 20. Thermal modeling.
- 21. Protection and cleaning as defined herein.
- 22. Field Measurements of adjacent and or supporting construction and verification of existing conditions.
- 23. Field touch up of finishes after installation and final adjustments.
- 24. Attic stock.
- 8. SECTION 08 58 00 ALUMINUM INTERIOR SLIING SERVICE WINDOW- ADD the entirety of the attached section to the project manual.
- 9. COLOR SCHEDULE ADD THE ATTACHED COLOR SCHEDULE TO THE PROJECT MANUAL. Insert directly behind the Division 9 cover sheet.
- 10. SECTION 22 40 00 REVISE ARTICLE 2.1.B TO READ AS FOLLOWS:

Lavatory to be a complete 3-stage lavatory system, Bradley 'Verge with Washbar Technology' LVQ Series. Model # LVQD3-WB1-A50-TMA. Chrome-Plated WashBar with Infrared Control, 0.50 gpm PCA Silicone Tip, Thermostatic Mixing Valve Assembly. Coordinate all accessories with architect and owner prior to submittal. Provide all traps, stops, and accessories for a complete fixture installation.

- 11. SECTION 26 05 00.15 REVISE ARTICLE 1.1.D TO READ AS FOLLOWS:
 - D. The work includes, but is not limited to the following:
 - 1. Alterations and additions to existing power distribution system
 - 2. Emergency lighting system
 - 3. Alterations and addition to existing building facilities
 - 4. Lighting system
 - 5. Power distribution system
 - 6. Telecommunication system
 - 7. Fire alarm system
 - 8. Grounding system
 - 9 Connection to owner furnished equipment
 - 10. Connection to HVAC and plumbing equipment
 - 11. Transformers
 - 12. Cable tray
 - 13. CATV system
 - 14. Monitoring system

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- 15. Security system
- 16. Television system
- 17. PS system
- 18. Short circuit/coordination/flash hazard study

B. <u>**REVISIONS TO DRAWINGS:**</u>

- 1. DRAWING ST03.200 ROOF FRAMING PLAN; REPLACE drawing with attached revised drawing.
- 2. DRAWING ST04.000- TYPICAL STRUCTURAL DETAILS; REPLACE drawing with the attached revised drawing.
- 3. DRAWING AR05.101 EXTERIOR ELEVATIONS; REPLACE drawing with attached revised drawing.
- 4. DRAWING AR8.300- DOOR AND WINDOW FRAMES; REPLACE drawing with the attached revised drawing.
- 5. DRAWING ME03.101 MECHANICAL ROOF PLAN; REPLACE drawing with attached revised drawing.
- 6. DRAWING EL00.001 GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS; REPLACE drawing with the attached revised drawing.
- 7. DRAWING EL04.100 FIRST FLOOR PLAN POWER & SYSTEMS; REPLACE drawing with the attached revised drawing.
- 8. DRAWING EL04.200 FIRST FLOOR PLAN POWER ALT BID 6; REPLACE drawing with the attached revised drawing.
- 9. DRAWING EL07.100 IT CONDUIT ROUTING PLAN; REPLACE drawing with the attached revised drawing.
- 10. DRAWING EL09.200 ELECTRICAL SCHEDULES; REPLACE drawing with the attached revised drawing.
- 11. DRAWING EL09.300 ELECTRICAL SCHEDULES ALT BID 6; REPLACE drawing with the attached revised drawing.

C. <u>RESPONSES TO BIDDER QUESTIONS:</u>

ITEM NO. 1: <u>Inquiry</u>: Can the bid date be extended an additional week or two past the Addendum # 1, June 12th, 2019 date to allow for more competitive pricing? With nine phases & the FAA requirements, it is a much harder bid to put together than usual.

<u>*Response*</u>: The Bid date was extended to June 26th. See Addendum No. 3.

ITEM NO. 2: <u>Inquiry</u>: Can the question period for the project be extended an additional week or two past the Addendum # 1, May 29, 2019 date to allow more time to get subcontractors into the project so we can find any additional issues.

<u>*Response*</u>: The questions date was extended to Wednesday June 5^{th} @ 4pm. See Addendum No. 3.

ITEM NO. 3: <u>Inquiry</u>: Clarify if the DBE Certification Form DBEC-1 must accompany the bid or be turned in within 5 days after the bid. The forms states both time frames.

Response: Provide DEBC-1 within five days of the bid opening.

ITEM NO. 4: <u>Inquiry</u>: Is the 9.72% minority participation required per each trade the same as the 9.72% DBE participation goal requirement as shown on Form DBEC-1?

<u>*Response*</u>: The 9.72% minority participation requirement is for the entire job only.

ITEM NO. 5: <u>Inquiry</u>: The Form of Proposal states that we are to turn in our Schedule of Values on the AIA form with the bid. We request a minimum of 48 hours after the bid to turn this in. It is unrealistic to expect that to be turned in with the bid.

<u>Response</u>: Provide Schedule of Values 48 hours after the bid opening.

ITEM NO. 6: <u>Inquiry</u>: Clarify if we must turn in our list of subs with the bid or within 48 hours after the bid.

Response: Provide list of subcontractors within 48 hours after the bid opening.

ITEM NO. 7: <u>Inquiry</u>: Does the CQCP spec pertain to this project? Requiring a Full Time PA with 5 years' experience in runway paving seems like overkill for minimal runway work.

Response: Not applicable for this project.

ITEM NO. 8: <u>Inquiry</u>: Within the CQCP spec, can the QC technicians & staff level member be one in the same or do they have to be individual persons? Are these personnel in addition to the testing and inspection agency individuals or can they be the same?

<u>Response</u>: QC technician and staff level member can be the same person.

ITEM NO. 9: <u>Inquiry</u>: With the QC personnel having to monitor each work activity, do we always have to have a QC person on site?

<u>*Response*</u>: QC personnel can be the contractor personnel on-site. Owner will provide third party testing and special inspections.

ITEM NO. 10: <u>Inquiry</u>: Can the requirement for the AISC certified shop, erector and painting be waived? This requirement seriously limits the activity of local contractors and the paint certification requirement is not likely achievable in this area. Going to the AISC website, none of the certified shops that do work in this area have the paint certification.

<u>*Response*</u>: Refer to revised SECTION 05 12 00 STRUCTURAL STEEL FRAMING ARTICLE 1.7 included in this Addendum.

ITEM NO. 11: <u>Inquiry</u>: Can a consolidated list of the items that need to be turned in with the bid be provided?

<u>*Response*</u>: See the attached Bid Document Schedule. Insert Bid Document Schedule into Project Manual Volume I directly behind Signature to Bids.

ITEM NO. 12: <u>Inquiry</u>: Can a consolidated list identifying which testing & inspection items the GC & the owner are responsible for?

<u>Response</u>: QC testing and inspection will be provided by the Owner.

ITEM NO. 13: <u>Inquiry</u>: The air quality control spec says we must have negative pressure between each phase. This will be tough with the holes in the existing acoustical deck as well as the existing ceiling heights. Please confirm this is a requirement of the project.

<u>*Response*</u>: Per Section 01 50 00, the Contractor is responsible for developing an Indoor Air Quality Plan. The use of pressure differentials is a key component to any such plan.

ITEM NO. 14: <u>Inquiry</u>: The specs nor the drawings provide any information on the exhaust hood above the range at Café 127.

<u>*Response*</u>: The exhaust hood and all the kitchen equipment listed in Specification 11 42 00 are by others. The contractor is responsible for MEP rough-in as indicated on the drawings.

ITEM NO. 15: <u>Inquiry</u>: Summary specification 01-10-00: Can the senior superintendent also fulfill the requirements of the building envelope, finishes, civil, MEP, fire protection, telecom & security system superintendent?

<u>Response</u>: Yes.

ITEM NO. 16: <u>Inquiry</u>: Provide information on the landside canopy to be replaced in Alternate # 5. See demo note # 16 on sheet 31 of 117.

<u>*Response*</u>: Canopy information has been added. Refer to the revised drawing AR05.101 issued as part of this Addendum.

ITEM NO. 17: <u>Inquiry</u>: Can custom made millwork be provided in lieu of the premanufactured? Much of the millwork appears to be custom made anyway.

<u>*Response*</u>: Yes. Refer to sections 06 40 00 and 06 41 00 that have been added via this Addendum.

ITEM NO. 18: <u>Inquiry</u>: Provide product information on the solid and quartz surfaces shown on the numerous casework sections.

<u>*Response*</u>: Solid surface and quartz surfaces are identified on the attached Color Schedule issued as part of this Addendum.

ITEM NO. 19: <u>Inquiry</u>: Clarify the roof overbuild design. The structural plans show tube steel floating over plywood and the architectural plans refer to light gauge truss framing. Additional and proper detailing is required.

<u>*Response*</u>: Additional information and details have been provided on the revised drawings ST03.200 and ST04.000 issued as part of this Addendum.

ITEM NO. 20: <u>Inquiry</u>: Confirm if curtainwall CW-6 is to go inside the tube steel truss that falls on column line C2.1 and there would be a quantity of four. It does not appear the dimensioning shown on plan 73 of 117 will fit within these tube steel trusses.

<u>*Response*</u>: CW-6 is located within the proposed tube steel truss on Column Line C2.1. The layout required has been added to the revised sheet AR08.300 issued as part of this Addendum. The Kawneer system shall be the interior non-thermal system, Kawneer Trifab 400.

ITEM NO. 21: <u>Inquiry</u>: The new site concrete on the airport apron (see sheet CV01.002 and detail on CV05.100) is not well defined. Typically, on AIP funded projects FAA specs are used on airside infrastructure improvements. So, I want to know whether this concrete is supposed to fall under FAA spec P-501 "PCC Pavement", which uses a flexural strength requirement for airport pavements. As far as I can tell this not referenced anywhere. Sometimes FAA will allow the use of State Highway specs but not usually on commercial service airports.

<u>Response</u>: Contractor shall follow the bid document requirements for PCC paving.

ITEM NO. 22: <u>Inquiry</u>: The base design for the storefront looks to be Kawneer's 451UT which I could see using for the thermal doors 124B and 123. It also mentioned 4-sided SSG which doesn't exist for storefront systems. The rest of the storefront I see on the project looks to be interior. Are we able to use a non-thermal product such as Kawneer's 451 2" x 4-1/2" Storefront Framing and does this need to be structurally glazed system?

<u>*Response*</u>: A non-thermal system shall be used for the interior storefront. The interior system has been added to the specifications via this Addendum.

ITEM NO. 23: <u>Inquiry</u>: As for the Curtainwall Framing the basis of design looks to be Kawneer's 1600 UT 2-1/2 x 7-1/2" SSG System for elevation C3 and 2-1/2" x 6" for elevations C1 and C2. Is this correct? The spec's also mention of shades and tracks, dual glazed access panels? A curtainwall at a staircase enclosure and sloped glazing? I don't see any of these located in the architectural drawings.

<u>*Response*</u>: CW3 shall be Kawneer's 1600 UT 2-1/2"x 7-1/2" SSG. CW1 and CW2 shall be Kawneer's 1600 UT 2-1/2"x 6" SSG. Delete unrelated items as indicated in this addendum.

ITEM NO. 24: *Inquiry:* Are there any spec's regarding the security pass thru window (W1)?

Response: Refer to Section 08 58 00 that has been added via this Addendum.

ITEM NO. 25: *Inquiry:* What is the anticipated start date for this project?

Response: September or October 2019 pending issuance of the FAA grant.

ITEM NO. 26: <u>Inquiry</u>: Mechanical plan 93 of 117 shows two (2) new mechanical screen walls that are not shown on the architectural or structural plans. Please provide details and what materials are to be used.

<u>*Response*</u>: The mechanical screen walls shall be deleted. See revised plan ME03.101 issued as part of this Addendum.

ITEM NO. 27: <u>Inquiry</u>: Plan 39 of 117: Note #6 references lightning protection. I do not see any spec for lightning protection. Clarify if any is required in the project.

<u>*Response*</u>: Lightning protection is not required. Delete all reference to Lightning protection from the Plan 39 of 117.

ITEM NO. 28: <u>Inquiry</u>: Do we need to supply sewer and water to the owner's trailer or can it be bottled water and a temporary tank sewage tank under the trailer?

<u>Response</u>: Owner will not require a trailer.

ITEM NO. 29: <u>Inquiry</u>: Please provide the existing plans for the terminal building.

<u>*Response*</u>: Plans will be made available to the contractor who is awarded the contract.

ITEM NO. 30: <u>Inquiry</u>: Clarify who pays for the BIM requirement for coordination drawings. Is this paid for by the owner or the GC?

<u>*Response*</u>: The construction drawings have been developed using BIM software. The building files will be made available to the awarded contractor at no cost. The requirement to develop the coordination drawings remains and is at the expense of the contractor. **ITEM NO. 31:** <u>Inquiry</u>: Is this a LEEDs project? It is mentioned in numerous specs, but there is no LEEDs spec.

<u>*Response*</u>: No, this is not a LEED project.

ITEM NO. 32: <u>Inquiry</u>: PBB Spec 3.1.14 states to" provide...PC Air and 400 Hz units for the design aircraft fleet mix," however, there is no fleet mix specified. Please provide the fleet mix to be serviced at HGR

<u>Response</u>: Airbus A319/320 series, Boeing 737-700/800 series and MD-80/88/90.

A GPU has been removed from the project and 45Ton PCAir should be acceptable for the fleet mix in use. Two (2) disconnects will be provided for the units and the bridge on the building next to the bridge: Bridge - 80A PCAir - 150A.

See revised drawings EL04.100, EL09.200 and EL09.300 issued as part of this Addendum.

ITEM NO. 33: <u>Inquiry</u>: PBB Spec 3.3.14 also specifies the use of a 4" diameter pantograph for cable management. We propose the use of our standard side trolley cable conveyance system in lieu of the pantograph. Please confirm acceptance of our side trolley system.

<u>*Response*</u>: Use of standard side trolley cable conveyance system is acceptable.

ITEM NO. 34: <u>Inquiry</u>: Verde GSE (PCA supplier) – What will be the power dedicated for the PCA only? (i.e. 125A, 150A, 200A, etc.). Please confirm if pre-cool and heat are required of the PCA units.

<u>*Response*</u>: Yes, the power will be separated for the Bridge and PCAir into two (2) disconnects (Please note that the GPU has been removed from this project). The PCAir will have the 150A Disconnect. Dedicated. Provide a unit that can precool the bridge.

ITEM NO. 35: <u>Inquiry</u>: ITW GSE (PCA / GPU supplier) – Is 28VDC required to service ERJ aircraft? Please confirm GPU requirements. Please specify available power dedicated for GPU.

<u>Response</u>: The GPU has been removed from this project and is not required.

ITEM NO. 36: <u>Inquiry</u>: Twist (PCA / GPU supplier) – Are all hoses and hose storage devices to be included with PCA?

<u>*Response*</u>: Yes, all accessories to utilize and store the equipment should be included. Please note the aircraft mix includes MD90 and the hose length should match the aircraft mix.

ITEM NO. 37: <u>Inquiry</u>: For the bidding on the terminal building expansion, a subcontractor is wondering what manufacturer the current TPO on the roof is? They want to verify what they need to ensure they can provide a warranty with this. If you could give me any information on this I'd appreciate it.

<u>*Response*</u>: The existing flat roof is warranted by Sarnafil. The roof has a 20-year warranty and was installed in 2012.

ITEM NO. 38: <u>Inquiry</u>: <u>Section 34 77 13X</u> Page 1, 1.1, Description: The model numbers indicated on the contract documents are based on thyssenkrupp Airport Systems models TB 37/18.5-2.

The "37/18.5" part of the model number provided above would indicate a 3 tunnel bridge is required. However, the "-2" part of the model number would indicate a 2 tunnel bridge is required. Please clarify the correct bridge model number and also if a 2 or 3 tunnel bridge is required.

<u>*Response*</u>: The bridge is a 3-tunnel bridge. The corrected designation should be TB 37/18.5-3.

ITEM NO. 39: <u>Inquiry</u>: <u>Section 34 77 13X</u> Page 5, 2.2.1.c Support Column: This section states that we are to provide disconnect switches for the bridge and any supplied auxiliary equipment including PCA, 400 Hz, and <u>potable water cabinets</u>.

In section 1.1 on page one of the specification it states that the contractor is to provide a new PBB and foundations and installation of new 400 Hz and preconditioned air systems. There is no mention of a potable water cabinet to be provided as part of the scope of work. Can you please confirm if a potable water cabinet is to be provided? If it is to be provided, can you issue a specification for it?

<u>*Response*</u>: Potable water cabinet not required for passenger boarding bridge.

ITEM NO. 40: <u>Inquiry</u>: <u>Section 34 77 13X</u> Page 8, 2.2.4.a.(1).(e): Push buttons for independent adjustment of the left and right side of the bellows-type aircraft enclosure.

We kindly request an exception to the requirement for independent activation of the right/left sides of the canopy. TKAS uses a specially-designed canopy deployment mechanism that precludes the possibility of applying excessive force to the aircraft fuselage. Self-contained struts limit the maximum pressure applied to the aircraft, making a pressure sensor unnecessary. The struts provide sufficient pressure to extend the canopy and maintain a complete seal with the aircraft fuselage without applying additional contact pressure. Each side lowers independently and stops automatically when contact is made with the aircraft. In addition, a strap is used to control lowering and to raise the canopy.

<u>*Response*</u>: Request is acceptable. TKAS understands that they are taking on the responsibility for any damage to the aircraft due to excessive force and their system.

ITEM NO. 41: <u>Inquiry</u>: <u>Section 34 77 13X</u> Page 18-19, 2.2.12 (Interior Finishes) & 2.2.13 (Exterior Finishes): These sections state to use Sherwin Williams brand paint system.

Our standard HEMPEL paint system has a similar preparation and coating as the requested Sherwin Williams system. We believe that this not only meets, but exceeds the requested system and we kindly ask for acceptance of our standard paint.

<u>*Response*</u>: Acceptable. Please note that this airport will have power in/out operations. The bridge will be moved to the side and the aircraft will power out. This will cause some additional stress on the bridge paint. Please verify that HEMPEL is acceptable for this use without undue maintenance from repainting.

ITEM NO. 42: <u>Inquiry</u>: <u>Section 34 77 13X</u> Page 20, 2.2.14.c: Fire protective coatings shall be placed on the fixed and rotating cab floor.

The design does not require the application of fire protective coatings on the floor. We use galvanealed steel floors that also act as a fire pan that meets all required NFPA requirements. Additionally, no plywood is used in our cab flooring. We kindly ask that you accept our standard design.

<u>*Response*</u>: This is acceptable if TKAS is meeting the NFPA 415 (5-minute test) on all parts of the bridge.

ITEM NO. 43: *Inquiry*: Are specifications available for the 400 Hz and PCA units?

<u>*Response*</u>: The GPU has been removed from this project. The specifications are that the PCAir must meet the aircraft mix as shown above in question #32.

ITEM NO. 44: <u>Inquiry</u>: Finish schedule calls for F4 quartz tile on the finish drawing show F5 carpet tile which is correct??

<u>Response</u>: Space 138 (corridor in office area) is carpet tile, F5.

ITEM NO. 45: <u>Inquiry</u>: I would like to submit a substitution request for Seaman Corporation Fibertite 60 MII SM (KEE) Membrane as an option for the polyvinyl-chloride (PVC-TPA) roofing specified in section 075419. Tremco TPA roof membrane is the basis of design. It is my understanding that Tremco is no longer using a TPA membrane and is now going to a KEE membrane.

<u>*Response*</u>: Substitution request for Seaman Corporation Fibertite 60 Mil SM (KEE) Membrane is acceptable provided manufacturing requirements are followed per the project specifications.

ITEM NO. 46: <u>Inquiry</u>: Are you accepting subcontractor bids for Indoor Air Quality Testing Requirements on this project?

Response: No, we will not accept bids from subcontractors.

ITEM NO. 47: <u>Inquiry</u>: SUBSTITUTION REQUEST - Specification Title: Division 7; Description: Polyvinyl-Chloride (PVC-TPA) Roofing; Section: 075419; Page: 075419-6; Article/Paragraph: 2.3 – PVC Membrane Roofing. Proposed Substitution: Fibertite 60 Mil SM Membrane; Manufacturer: Seaman Corporation; Address: Wooster, OH; Trade name: Fibertite 60 Mil SM Membrane

<u>Response</u>: See response to Item No. 45 in this Addendum.

ITEM NO. 48: <u>Inquiry</u>: There is no wage rate for communications. Would this be the same as electrical? Or can you provide the wage rate for communications.

<u>*Response*</u>: All available, current Federal Wage Rates for building construction in Washington County, Maryland, per the Davis-Bacon Act, have been included in the Bid Documents.

ITEM NO. 49: <u>Inquiry</u>: Could you help me find where elevation CW-6 is located please. I am having trouble locating it in the architecturals.

<u>*Response*</u>: CW-6 is located in the new tube steel truss along Column Line C.2. See response to Item No. 20 in this Addendum.

ITEM NO. 50: <u>Inquiry</u>: what type of pre-finished aluminum composite panel they are calling for with this? If it's interior storefront (which I think it is) it doesn't need to be an insulated panel. That way we could go with a ¹/₄" aluminum embossed panel.

<u>*Response*</u>: At CW-6 provide insulated metal panels as specified in Section 07 42 13 Article 2.2.A. Matching finishes, fire rating and smoke development performance are required throughout the application of this product in the building.

ITEM NO. 51: <u>Inquiry</u>: Under Specification section 230900 Instrumentation and Controls for HVAC 2.2, can Schneider Electric be added as an acceptable manufacturer and Control Systems, Inc. be added as an acceptable BMS contractor?

<u>*Response*</u>: Schneider Electric and Control Systems, Inc. may be included as acceptable manufacturer and acceptable BMS contractor as requested.

ITEM NO. 52: <u>Inquiry</u>: Door #124: Looks like a coiling security grille on the schedule. At the end of the coiling door specification section 08 33 36, it says to see section 08 31 00 for steel weave mesh grille for door 124. Couldn't find it there. If you are looking for a coiling security grille, I attached a specification document. Will it be acceptable? If so, which of the available options for this grille will apply to this project? Will it be motorized?

Response: See attached Specification 08 33 00.

ITEM NO. 53: <u>Inquiry</u>: For the coiling steel doors: Wind Loads specified in 1.4 A1 asks for 20 PSF (standard). 08 33 36 Page 5: 2.2 A11 is asking for 25 PSF. Which is correct?

<u>Response</u>: Provide a minimum wind/suction load of 25 PSF.

ITEM NO. 54: <u>Inquiry</u>: Under 08 33 36 Page 3: "Warranty", asking for "PowderGuard Premium applied to curtain, and top coat for guides, bottom bar, head plates". 08 33 36 Page 4, #6 says the "Finish: Bottom Bar, Guides, Headplates and brackets are: a) "Finish: Black powder coat finish": and b) "Finish: PowderGuard Zinc base coat, gray with PowderGuard Premium powder coat as selected by the Architect". a) is the standard for all of our rolling steel doors. b) seems to agree what is said under "Warranty" section, but is a Zinc-Rich and Premium Powder Coat up-charge. Which is wanted for this project?

<u>*Response*</u>: Provide premium powder coat for the entire door. Include zinc rich galvanized for all exposed components.

ITEM NO. 55: <u>Inquiry</u>: Under "Products", 08 33 36 Page 4) 2.2 A-9 Calls for "Manual operation, chain hoist". Not possible, since you are specifying an electric operator. However, you may want an emergency hoist added to the operator, in case of a power failure. This is recommended on doors of 100 sq ft or greater. These doors are 108 sq ft, so one could get away with an emergency release / manual push-up / pull down. Does this project want operators with emergency hoist? Under 2.2 A 10 C; Asking for a remote transmitter and a card reader for all operators. Card readers are typically supplied by other suppliers, but can be integrated into the operators By Others.

<u>*Response*</u>: Provide emergency hoist with electrical operator. The manual operation chain hoist shall not be required.

ITEM NO. 56: <u>Inquiry</u>: Under 08 33 36 Page 6, 3.7 A & B: Calls for the existing doors to be removed. Do you need the New Door provider to remove these doors at some time prior to installing the new doors and operators, or is it part of a demolition process done by others?

<u>*Response*</u>: Doors shall be removed by the new door provider. The removal shall only be completed when the new doors are on site and can be immediately installed after removal.

ITEM NO. 57: <u>Inquiry</u>: Specification 093000 – Tiling: The F-4 Quat\rtz Tile shown on Plan 74 of 117 is not included in the specification. Please provide this product information.

<u>Response</u>: Refer to attached Color Schedule.

ITEM NO. 58: <u>Inquiry</u>: Please consider Raynor DuraCoil Overhead Doors as a equivalent to the specified Overhead Door Compnay Model 625. I have attached information on Raynor product.

<u>*Response*</u>: Comparable products shall be submitted in accordance with Section 01 60 00. The attached product data does not meet the requirement identified in Section 01 60 00 Article 2.2.

ITEM NO. 59: <u>Inquiry</u>: Spec Section 347713X-5 2.2.2 a: The exterior roof, wall, and floor panels of the telescoping tunnel sections shall be constructed from 14 gauge (0.0747") formed galvanized steel panels attached to a framework of angle and tubing. These panels are formed, welded, sealed and painted to form the tunnel enclosure allowing for smooth exterior finish. Roof shall be flat to prevent the collection of water. [AMB: Our apron drive PBB the sides and bottom are constructed of 14 gauge corrugated steel and the roof is 14 gauge flat steel; can our method be approved?]

<u>Response</u>: Method approved.

ITEM NO. 60: <u>Inquiry</u>: Spec Section 347713X-5 2.2.10 a: The passenger boarding bridge shall move vertically by means of two extra capacity hydraulic ram assemblies. [AMB: Our lift columns work by electro-mechanical screws (ball screws); can our method be approved?]

<u>*Response*</u>: Electro-Mechanical screws (ball screws) are not approved for use on this project.

ITEM NO. 61: <u>Inquiry</u>: Spec Section 347713X-5 2.2.11 b: Tunnel and rotunda interior lighting shall be provided by F32 SPX T8, Bi-Pin, High Output, Energy Saving, Cool White, Fluorescent Light Fixtures that are powered by instant start electronic ballast's that provide a 1.0 ballast factor. The light fixtures shall be located between 6' and 12' on center, be recessed or troffered, and blend with the ceiling design. Other lighting systems would be acceptable but shall provide an average light intensity at the floor shall be 18' candles (194 lux). Please note that lighting intensity levels vary significantly with changes in interior color designs. The measurements noted above are based on an interior design that incorporates white wallboard with light colored carpeting and white ceiling. [AMB: Our lighting system is LED's; can our methos be approved?]

<u>Response</u>: LED lighting is approved.

ADDENDUM NO. 4 HGR Terminal Bldg. Expansion PUR-1410 Page 16

Attachments:

Specifications

Section 01 21 00 - Allowances Section 06 40 00 – Interior Architectural Woodwork Section 06 41 00 – Custom Casework Section 08 33 00 - Steel Weave® Metal Mesh Grille Section 08 58 00 – Aluminum Interior Sliding Service Window

Plans

ST03.200 - Roof Framing Plan ST04.000 – Typical Structural Details **AR05.101 – Exterior Elevations** AR08.300 - Door and Window Frames ME03.101 - Mechanical - Roof Plan EL00.001 - General Notes, Abbreviations, and Symbols EL04.100 - First Floor Plan - Power & Systems EL04.200 - First Floor Plan - Power Alt Bid 6 EL07.100 - IT Conduit Routing Plan **EL09.200 – Electrical Schedules** EL09.300 – Electrical Schedules Alt Bid 6

Schedules **Bid Document Schedule Color Schedule**

By Authority of: uny Rick F. Curry, CPPO Director of Purchasing

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
- B. Types of allowances include the following:
 - 1. Lump-sum allowances.

1.2 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise RPR and Architect of the date when final selections must be completed by the Owner, or purchase and delivery of each product or system described by an allowance must be completed by the Contractor to avoid delaying the Work.
- B. At RPR and Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by RPR and Architect from the designated supplier.

1.3 ACTION SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

1.4 INFORMATIONAL SUBMITTALS

- A. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.
- B. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 LUMP-SUM ALLOWANCES

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include [taxes,]freight[,] and delivery to Project site.

1.6 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between the approved allowance amount and the cost associated with the change in scope of the allowance.
 - 1. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.
- B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.
 - 1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
 - 2. No change to Contractor's indirect expense is permitted for selection of higher- or lowerpriced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. 1: Lump-Sum Allowance: Include the sum of \$60,000. Include the stipulated sum listed for use as directed by the County to complete work associated with Internet Technology and Communications.
 - 1. This allowance includes material cost, receiving, handling, warranties, installation and Contractor overhead and profit and any other work necessary to complete the allowance.

END OF SECTION 012100

SECTION 06 40 00 INTERIOR ARCHITECTURAL WOODWORK

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:1. Solid wood trim.
- B. Related Sections include the following:
 - 1. Section 06 11 40 Wood Blocking and Curbing: Wood furring, blocking, shims, and hanging strips required for installing woodwork and concealed within other construction before woodwork installation.
 - 2. Section 08 21 00 Flush Wood Doors.
 - 3. Section 09 90 00 Painting: Field finishing of interior architectural woodwork.

1.3 DEFINITIONS

A. Interior architectural woodwork includes wood furring, blocking, shims, and hanging strips for installing woodwork items, unless concealed within other construction before woodwork installation.

1.4 PERFORMANCE REQUIREMENTS

- A. Requirements in this article are examples only and are based on typical requirements of model codes. For some occupancy categories under certain circumstances, model codes have less-stringent provisions; revise to suit Project and to comply with requirements of authorities having jurisdiction. Verify, with manufacturers, that their impact-resistant handrails can comply.
- B. Structural Performance: Provide handrails capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Uniform load of 50 lbf/ft. applied in any direction.
 - 2. Concentrated load of 250 lbf applied in any direction.
 - 3. Uniform and concentrated loads need not be assumed to act concurrently.

1.5 SUBMITTALS

- A. Product Data: For each type of product indicated, handrail brackets, and finishing materials and processes.
- B. Product Data: For plywood, high-pressure decorative laminate, adhesive for bonding plastic laminate, handrail brackets, and finishing materials and processes.
- C. Shop Drawings: Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, and other components.
 - 1. Show details full size.
 - 2. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.

- D. Samples for Initial Selection: Manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available for each type of material indicated.
 - 1. Shop-applied transparent finishes.
- E. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed architectural woodwork similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- B. Fabricator Qualifications: A firm experienced in producing architectural woodwork similar to that indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C. Quality Standard: Unless otherwise indicated, comply with AWI's "Architectural Woodwork Quality Standards" for grades of interior architectural woodwork, construction, finishes, and other requirements.
 - 1. Provide AWI certification labels or compliance certificate indicating that woodwork complies with requirements of grades specified.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver woodwork until painting and similar operations that could damage woodwork have been completed in installation areas. If woodwork must be stored in other than installation areas, store only in areas where environmental conditions comply with requirements specified in "Project Conditions" Article.

1.8 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Field Measurements: Where woodwork is indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
 - 1. Locate concealed framing, blocking, and reinforcements that support woodwork by field measurements before being enclosed and indicate measurements on Shop Drawings.
 - 2. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating woodwork without field measurements. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.9 COORDINATION

A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to ensure that interior architectural woodwork can be supported and installed as indicated.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. General: Provide materials that comply with requirements of the AWI quality standard for each type of woodwork and quality grade specified, unless otherwise indicated.
- B. Wood Species and Cut for Transparent Finish: Hardwood, plain sawn or sliced, free of appearance defects, and selected for compatible grain and color.
- C. Thermoset Decorative Overlay: Particleboard complying with ANSI A208.1, Grade M-2, or medium-density fiberboard complying with ANSI A208.2, Grade MD, with surface of thermally fused, melamine-impregnated decorative paper complying with LMA SAT-1.
- D. High-Pressure Decorative Laminate: NEMA LD 3.
 - Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that are incorporated into the Work include the following: Provide selections from a combination of the following manufactures:

 a. Wilsonart, Formica, Pionite, Nevamar.
- E. CABINET HARDWARE AND ACCESSORIES
 - 1. General: Provide cabinet hardware and accessory materials for a complete installation of architectural woodwork, except for items specified in Division 8 Section "Door Hardware."
 - 2. Hardware Standard: Comply with BHMA A156.9 for items indicated by referencing BHMA numbers or items referenced to this standard.
 - 3. Frameless Concealed Hinges (European Type): BHMA A156.9, B01602, self-closing
 - 4. Pulls: Back mounted, 5 inches long, 5/16 inches in diameter, brushed stainless steel wire pull.
 - 5. Catches: Magnetic, BHMA A156.9, B03141.
 - 6. Adjustable Shelf Standards and Supports: BHMA A156.9, B04071; with shelf rests, B04081.
 - 7. Drawer Slides: Side-mounted, full-extension, zinc-plated steel drawer slides with steel ball bearings, BHMA A156.9, B05091 and rated for the following loads:
 - a. Box Drawer Slides: 100 lbf.
 - b. File Drawer Slides: 150 lbf.
 - Drawer Slides: Bottom-mounted, full-extension, zinc-plated steel drawer slides with steel ball bearings rated for the following loads:
 - a. Box Drawer Slides: 150 lbf.
 - 1) Provide Knape & Vogt KV 8500-16"
 - 9. Exposed Hardware Finishes: Complying with BHMA A156.18 for BHMA finish number indicated.
 - a. General: Brushed Nickel
- F. INSTALLATION MATERIALS
 - 1. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kilndried to less than 15 percent moisture content.
 - 2. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous-metal or hot-dip galvanized anchors and inserts on inside face of exterior walls and elsewhere as required for corrosion resistance. Provide toothed-steel or lead expansion sleeves for drilled-in-place anchors.

2.2 FABRICATION, GENERAL

A. Interior Woodwork Grade: Provide Custom grade interior woodwork complying with the referenced quality standard.

- B. Wood Moisture Content: Comply with requirements of referenced quality standard for wood moisture content in relation to ambient relative humidity during fabrication and in installation areas.
- C. Fabricate woodwork to dimensions, profiles, and details indicated. Ease edges to radius indicated for the following:
- D. General: Complete fabrication to maximum extent possible before shipment to Project site. Where necessary for fitting at site, provide allowance for scribing, trimming, and fitting.
 - 1. Shop cut openings to maximum extent possible. Sand edges of cutouts to remove splinters and burrs.
 - 2. Seal edges of openings in countertops with a coat of varnish.
 - 3. For trim items wider than available lumber, use veneered construction. Do not glue for width.
 - 4. Backout or groove backs of flat trim members and kerf backs of other wide, flat members, except for members with ends exposed in finished work.
 - 5. Assemble casings in plant except where limitations of access to place of installation require field assembly.
- F. Plastic-Laminate Cabinets: Refer to Custom Casework section 06 41 00
- G. Plastic-Laminate Countertops: Refer to Custom Casework section 06 41 00 and Color schedule.
- G. 3mm PVC Edging:
 - 1. Provide 3mm pvc edging as indicated for all casework.
 - 2. Color to be Wood Tape brand, as selected from manufacturer's full range of colors.
- H. Grommets:
 - 1. Gromments shall be located in the field by the Owner; drilled and installed by the contractor.
 - 2. Manufacturer: Doug Mockett
 - a. Model No. MM3
 - b. Color: To Be Determined
- I. Wire Management Hanger:
 - 1. Refer to drawings for locations
 - 2. Manufacturer: Doug Mockett
 - a. Model No. WM9
 - b. Color: To Be Determined
- J. Interior Standing and Running Trim
 - 1. Grade: Premium.
 - 2. Wood Species and Cut: Maple, plain sawn. Match species and cut indicated for other types of transparent-finished architectural woodwork located in same area of building, unless otherwise indicated.
 - a. Provide split species on trim that faces areas with different wood species, matching each face of woodwork to species and cut of finish wood surfaces in areas finished.
 - 3. Provide shapes and sizes as indicated on drawings.
 - 4. For trims, treads and risers, and stair handrails wider or thicker than available lumber, use veneered construction. Do not glue for width or thickness.
 - 5. Backout or groove backs of flat trim members and kerf backs of other wide, flat members, except for members with ends exposed in finished work.
 - 6. Assemble casings in plant except where limitations of access to place of installation require field assembly.
 - 7. Assemble moldings in plant to maximum extent possible. Miter corners in plant and prepare for field assembly with bolted fittings designed to pull connections together.

PART 3 – EXECUTION

3.1. PREPARATION

- A. Condition woodwork to average prevailing humidity conditions in installation areas before installation.
- B. Before installing architectural woodwork, examine shop-fabricated work for completion and complete work as required, including removal of packing and backpriming.

3.2 INSTALLATION

- A. Quality Standard: Install woodwork to comply with AWI Section 1700 for the same grade specified in Part 2 of this Section for type of woodwork involved.
- B. Install woodwork level, plumb, true, and straight. Shim as required with concealed shims. Install level and plumb (including tops) to a tolerance of 1/8 inch in 96 inches.
- C. Scribe and cut woodwork to fit adjoining work, and refinish cut surfaces and repair damaged finish at cuts.
- D. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing as required for complete installation. Use fine finishing nails for exposed fastening, countersunk and filled flush with woodwork and matching final finish if transparent finish is indicated.

3.4 ADJUSTING AND CLEANING

- A. Repair damaged and defective woodwork, where possible, to eliminate functional and visual defects; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
- B. Clean, lubricate, and adjust hardware.
- C. Clean woodwork on exposed and semiexposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.

END OF SECTION

SECTION 06 41 00 CUSTOM CASEWORK

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Special fabricated cabinet units.
- B. Countertops and supports.
- C. Cabinet hardware.
- D. Prefinished surfaces and preparation for site finishing.
- E. Preparation for installing utilities.
- F. Miscellaneous shelving and built-in storage units.

1.2 RELATED SECTIONS

- A. Section 06 11 40 Wood Blocking and Curbing: Grounds and support framing.
- B. Section 06 20 00 Finish Carpentry: Related trim not specified in this section.
- C. Section 09 90 00 Painting: Finishing cabinet exterior and interior.

1.3 REFERENCES

- A. ANSI/BHMA A156.9 Cabinet Hardware.
- B. AWI Quality Standards.
- C. FS MM-L-736 Lumber, Hardwood.
- D. FS MMM-A-130 Adhesive, Contact.
- E. National Electric Manufacturers Association (NEMA) LD3 High Pressure Decorative Laminates.
- F. PS 1 Construction and Industrial Plywood.
- G. PS 20 American Softwood Lumber Standard.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Shop Drawings: Indicate materials, component profiles and elevations, assembly methods, joint details, fastening methods, accessory listings, hardware location, and schedule of finishes.
- C. Samples: Submit two, 12 x 12 inch size samples, illustrating cabinet finish.
- D. Samples: Submit two, 12 x 12 inch size samples, illustrating countertop finish.
- E. Samples: Submit two samples of drawer pulls, hinges and door glides, illustrating hardware finish.

1.5 QUALITY ASSURANCE

A. Perform cabinet construction in accordance with AWI Premium quality; perform drawer and door front construction in accordance with AWI Custom quality.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum ten years documented experience.

1.7 MOCKUP

- A. Provide mockup of full size base cabinet and upper cabinet under provisions of Section 01 40 00.
- B. Provide units with specified countertop; with hardware installed.
- C. Units will be examined to ascertain quality and conformity to AWI quality level standards and specification requirements.
- D. Mockup may remain as part of the Work.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store and handle products to site under provisions of Section 01 60 00.
- B. Protect units from moisture damage.

1.9 FIELD MEASUREMENTS

A. Verify that field measurements are as indicated on shop drawings.

1.10 COORDINATION

- A. Coordinate work under provisions of Section 01 31 00.
- B. Coordinate the work with plumbing and electrical rough-in.

PART 2 PRODUCTS

2.1 FABRICATORS

- A. Beachley Millwork, Cavetown, MD Contact: Larry Taylor Phone: 301-733-7940 Email: ltaylor@cavetown.com
- B. Martin Millwork, Inc., Mercersburg, PA Phone: 717-328-5640 Email: mmwestimating@centurylink.net
- C. Maryland Millwork, Inc., Hagerstown, MD Contact: Dan Myers Phone: 301-733-4600 Email: danm@marylandmillwork.com
- D. Substitutions: Under provisions of Section 01 60 00.

2.2 WOOD MATERIALS

A. Hardwood Lumber: FS MM-L-736; graded in accordance with AWI Custom; average moisture content of 6 percent; species and grade as follows:

ITEM	SPECIES	CUT
Cabinet Frame	White Oak	Plain-Slice
Exposed Stiles and Rails	White Oak	Plain-Slice
Internal Construction	Douglas Fir	Plain-Slice

2.3 SHEET MATERIALS

A. Hardwood Plywood: PS 51; graded in accordance with AWI, core materials of veneer, type of glue recommended for application; face veneer and cuts as follows:

ITEM	FACE SPECIES	CUT
Door and Drawer Fronts	White Oak	Plain Slice
Drawer Construction	White Oak	Plain Slice
Gables and Backs	White Oak	Plain Slice

- B. Medium Density Overlay Board: Minimum 3/4 inches thick graded in accordance with AWI "Premium" grade and make with high waterproof resin adhesive and sanded faces.
- C. Hardboard: is not acceptable.

2.4 MANUFACTURERS - PLASTIC LAMINATE & SOLID SURFACE

- A. Formica Product, HGPL.
- B. Nevamar
- C. Wilson Art
- D. Substitutions: Under provisions of Section 01 60 00.
- 2.5 LAMINATE AND SOLID SURFACE MATERIALS
 - A. Plastic Laminate: AWI, 0.050 inch General Purpose quality; color, pattern, and surface texture as selected.
 - B. Laminate Backing Sheet: 0.020 inch Backing Sheet grade, undecorated plastic laminate.
 - C. Interior Liner: Melamine 0.20 inch NEMA Cl20
 - D. Solid Surface and Nosing: shall be equal to DuPonts Corian Sierra, Magna and Jewel series 1/2" thick colors to be selected from standard pallet.

2.6 ACCESSORIES

- A. Adhesive: Type recommended by AWI and laminate manufacturer to suit application.
- B. Plastic Edge Trim: Extruded convex shaped; smooth finish; self locking serrated tongue; of width to match component thickness; color as selected.
- C. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application; chromium plated finish in concealed locations and stainless steel finish in exposed locations.
- D. Concealed Joint Fasteners: Threaded steel.

- E. Hardware: (Color to be selected by the Owner and Architect)
 - All hardware shall be equal to Doug Mockett and Company unless otherwise noted.

 - Grommet: XG 3" flip top
 Table Leg: TL Series 3 inch O.D. by length required with plate leveler and satin chrome 2. finish.
 - Wire Manager: WM-4 3.

2.7 FABRICATION

- Shop assemble casework for delivery to site in units easily handled and to permit passage through Α. building openings.
- Β. Fit shelves, doors, and exposed edges with 3/8 inch matching hardwood edging. Use one piece for full length only.
- C. Cap exposed plastic laminate finish edges with material of same finish and pattern.
- D. Door and Drawer Fronts: 3/4 inch thick; flush style.
- E. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.
- F. Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Slightly bevel arrises. Locate counter butt joints minimum 2 feet from sink cut-outs.
- G. Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
- Н Fabricate metal countertop surfaces pressure glued to plywood core backing with butt welded joints with spline and without visible joints.
- I. Mechanically fasten back splash to countertops with steel brackets at 16 inches on center.
- Provide cutouts for plumbing fixtures, and inserts. Verify locations of cutouts from on-site J. dimensions. Seal contact surfaces of cut edges.

2.8 FINISHING

- Sand work smooth and set exposed nails and screws. A.
- Apply wood filler in exposed nail and screw indentations. B
- C On items to receive transparent finishes, use wood filler which matches surrounding surfaces and of types recommended for applied finishes.
- D. Seal, stain and varnish exposed to view surfaces. Brush apply only.
- E. Seal stain and varnish internal exposed to view and semi-concealed surfaces. Brush apply only.

PART 3 EXECUTION

- 3.1 EXAMINATION
 - Verify adequacy of backing and support framing. A.

3.2 **INSTALLATION**

Set and secure casework in place; rigid, plumb, and level. A.

CUSTOM CASEWORK

- B. Use fixture attachments in concealed locations for wall mounted components.
- C. Use concealed joint fasteners to align and secure adjoining cabinet units and counter tops.
- D. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim for this purpose.
- E. Secure cabinet and counter bases to floor using appropriate angles and anchorages.
- F. Countersink anchorage devices at exposed locations. Conceal with solid wood plugs of species to match surrounding wood; finish flush with surrounding surfaces.
- G. Construction adhesive or glue <u>shall not be used</u> to facilitate the installation of wall cabinets.

3.3 ADJUSTING

- A. Adjust work under provisions of Section 01 73 00.
- B. Adjust moving or operating parts to function smoothly and correctly.

3.4 CLEANING

- A. Clean work under provisions of 01 77 00.
- B. Clean casework, counters, shelves, hardware, fittings and fixtures.

END OF SECTION

SECTION 08 33 00 STEEL WEAVE® METAL MESH GRILLE

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Electric operated overhead rolling grilles.
- B. Related Sections:
 - 1. Section 05 50 00 Metal Fabrications. Door opening jamb and head members.
 - 2. Section 08 31 00 Access Doors and Panels. Access doors.
 - 3. Section 08 71 00 Door Hardware. Masterkeyed cylinders.
 - 4. Division 26: Electrical wiring and conduit, fuses, disconnect switches, connection of operator to power supply, and installation of control station and wiring.
- C. Products That May Be Supplied, But Are Not Installed Under This Section:
 - 1. Control station.

1.2 SYSTEM DESCRIPTION

- A. Design Requirements:
 - 1. Cycle Life:
 - a. Design grilles of standard construction for normal use of up to 10 cycles per day maximum, and an overall maximum of 50,000 operating cycles for the life of the grille.

1.3 SUBMITTALS

- A. Reference Section 01 33 00 Submittal Procedures; submit the following items:
 - 1. Product Data.
 - 2. Shop Drawings: Include special conditions not detailed in Product Data. Show interface with adjacent work.
 - 3. Quality Assurance/Control Submittals:
 - a. Provide proof of manufacturer ISO 9001:2008 registration.
 - b. Provide proof of manufacturer and installer qualifications see 1.3 below.
 - c. Provide manufacturer's installation instructions.
 - 4. Closeout Submittals:
 - a. Operation and Maintenance Manual.
 - b. Certificate stating that installed materials comply with this specification.

1.4 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Manufacturer Qualifications: ISO 9001:2008 registered and a minimum of five years of experience in producing grilles of the type specified.
 - 2. Installer Qualifications: Manufacturer's approval.

1.5 DELIVERY STORAGE AND HANDLING

- A. Reference Section 01 60 00 Product Requirements.
- B. Follow manufacturer's instructions.

1.6 WARRANTY

- A. Standard Warranty: Two years from date of shipment against defects in material and workmanship.
- B. Maintenance: Submit for owner's consideration and acceptance of a maintenance service agreement for installed products.

PART 2 PRODUCTS

- 2.1 MANUFACTURER
 - A. Cornell: 24 Elmwood Ave. Mountain Top, PA 18707. Telephone: (800) 233-8366 Contact: Chris Stover – ADS Department, Ext 4072 <u>chris.stover@cornellcooksn.com</u>
 - B. Alternates:
 - 1. Cookson
 - 2. Clopay
 - C. Substitutions: Equal or better
- 2.2 PRODUCT INFORMATION
 - A. Model: EAG10C
- 2.3 MATERIALS
 - A. Curtain:
 - 1. Tigris Curtain
 - a. Woven Stainless Steel Mesh shall be manufactured using drawn stainless steel wire and stainless steel rods. The warp wire is 3x.075" T316L stainless steel; and the weft element is .115" T316L stainless steel.
 - b. Product Data: The fabric shall be 100% AISI type 316L Electro polishing quality stainless steel for exterior application.
 - c. Open area to be 64%.
 - B. Bottom Bar: 1. Conf

1.

- Configuration:
 - a. Stainless Steel angles forming tubular shape
- 2. Finish:
 - a. 316 Stainless Steel Curtain with 304 Stainless Steel Bottom Bar: Factory polished.
- C. Guides, Tube Mounted:
 - Aluminum: Heavy duty extruded aluminum one piece guide with santoprene wear strips. Provide steel tubes, floor saddles and hardware as recommended by manufacturer to support grille.
 - a. Finish, Aluminum Guide Components: Clear anodized
 - b. Finish, Steel Mounting Tubes: Unpainted.
- D. Counterbalance Shaft Assembly:
 - 1. Barrel: Steel pipe capable of supporting curtain load with maximum deflection of 0.03 inches per foot (2.5 mm per meter) of width.
 - 2. Spring Balance: Oil-tempered, heat-treated steel helical torsion spring assembly designed for proper balance of grille to ensure that maximum effort to operate

will not exceed 25 lbs (110 N). Provide wheel for applying and adjusting spring torque.

- E. Brackets: Fabricate from minimum 3/16 inch (4.76 mm) steel plate with permanently lubricated ball or roller bearings at rotating support points to support counterbalance shaft assembly and form end closures.
 - 1. Finish: Zirconium treatment followed by a black baked-on polyester powder coat; minimum 2.5 mils (0.065 mm) cured film thickness.
- F. Hood & Fascia: 20 GA stainless steel 3 sided hood with return on bottom flange to allow bottom bar to align flush with bottom of hood when door in opened position. Provide minimum 1/4 inch (6.35 mm) steel intermediate support brackets as required to prevent excessive sag.
 - 1. Finish: Stainless Steel hood.

2.4 OPERATION

- Motor Standard Use Model MG (Industrial Duty Gear Head) Operator: The operator A. must not extend above or below the door coil when mounted front-of-coil. Rated for a maximum of 20 cycles per hour (not to be used for consecutive hours) cULus listed (to comply with UL requirements in The United States and Canada), Totally Enclosed Non Ventilated gear head operator rated 1/3 hp as recommended by door manufacture for size and type of door, 115 Volts, 1 Phase. Provide complete with electric motor and factory pre-wired motor control terminals, maintenance free solenoid actuated brake, emergency manual chain hoist and control station. Motor shall be high starting torque, industrial type, protected against overload with an auto-reset thermal sensing device. Primary speed reduction shall be heavy-duty, lubricated gears with mechanical braking to hold the door in any position. Operator shall be equipped with an emergency manual chain hoist assembly that safely cuts operator power when engaged. A disconnect chain shall not be required to engage or release the manual chain hoist. Operator drive and door driven sprockets shall be provided with #50 roller chain. Provide an integral Motor Mounted Interlock system to prevent damage to door and operator when mechanical door locking devices are provided. Operator shall be capable of driving the door at a speed of 8 to 9 inches per second (20 to 23 cm/sec). Fully adjustable, driven linear screw type cam limit switch mechanism shall synchronize the operator with the door. The electrical contractor shall mount the control station and supply the appropriate disconnect switch, all conduit and wiring per the overhead door wiring instructions.
- B. Control Stations:
 - 1. Flush mounted: "Open/Close" key switch with "Best" core cylinder; NEMA 1B
- C. Control Operation: 1. Constant Pressure to Close:

2.5 ACCESSORIES

- A. Locking:
 - 1. Master keyable turn handle with cylinder operable from coil side of bottom bar.
- B. Interior Aesthetic Covers:
 - 1. Operator and Bracket Mechanism Cover: Minimum 20 gauge stainless steel sheet metal cover to enclose exposed moving operating components at coil area of unit, tab & slotted design. Finish matching hood.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine substrates upon which work will be installed and verify conditions are in accordance with approved shop drawings.
- B. Coordinate with responsible entity to perform corrective work on unsatisfactory substrates.
- C. Commencement of work by installer is acceptance of substrate.

3.2 INSTALLATION

- A. General: Install grille and operating equipment with necessary hardware, anchors, inserts, hangers and supports.
- B. Follow manufacturer's installation instructions.

3.3 ADJUSTING

A. Following completion of installation, including related work by others, lubricate, test, and adjust grilles for ease of operation, free from warp, twist, or distortion.

3.4 CLEANING

- A. Clean surfaces soiled by work as recommended by manufacturer.
- B. Remove surplus materials and debris from the site.

3.5 DEMONSTRATION

- A. Demonstrate proper operation to Owner's Representative.
- B. Instruct Owner's Representative in maintenance procedures.

END OF SECTION

SECTION 08 58 00 ALUMINUM INTERIOR SLIDING SERVICE WINDOW

PART 1 – GENERAL

1.1 SUMMARY

- A. This section includes:
 - 1. Aluminum, medium-duty interior sliding service windows as indicated in drawings and in sections.

1.2 SUBMITTALS

- A. Product Data: Submit Manufacturer's technical product data substantiating that products comply.
- B. Shop drawings: Submit for fabrication and installation of windows. Include details, elevations and installation requirement of finish hardware and cleaning.
- C. Certification: Provide printed data in sufficient detail to indicate compliance with the contract documents.
- 1.3 DELIVERY, STORAGE, AND HANDLING
 - A. Deliver windows crated to provide protection during transit and job storage.
 - B. Inspect windows upon delivery for damage. Unless minor defects can be made to meet the Architect's specifications and satisfaction, damaged parts should be removed and replaced.
 - C. Store windows at building site under cover in dry location.

1.4 PROJECT CONDITIONS

A. Field measurements: Check opening by accurate field measurement before fabrication. Show recorded measurements on shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of work.

1.5 WARRANTY

A. All material and workmanship shall be warranted against defects for a period of one (1) year from the original date of purchase.

PART 2 - PRODUCTS

- 2.1 ACCEPTABLE MANUFACTURER'S
 - A. Basis of design: Design is based on aluminum, interior sliding service window manufactured by C.R. Laurence Co., Inc. (800) 421-6144
- 2.2 MATERIALS
 - A. Frames: Aluminum frame modules shall be constructed of 6063-T5 extruded aluminum. Window rolls on top-hung ball bearing rollers. Catch locks included with all interior windows. Overall frame sizes are to be in accordance with the contract drawings.

ALUMINUM SLIDING SERVICE WINDOW

- B. Finish: All aluminum to be clear anodized, or duranodic bronze.
- C. Glazing: The glazing vinyl supplied is for $1/8^{\circ}$, $3/16^{\circ}$, $7/32^{\circ}$ or $\frac{1}{4}^{\circ}$ in thickness. (specify glazing thickness to be used) Glass not included, to be supplied by others.
- D. Options: Keyed lock, full bottom track, screen. (Screen option not available on all units.) D4, D6, D7 & D1670 Overhead track. (Please specify)
- E. Models: Florence (OX or XO), Daisy (XX), Fawn (XOX), Barbara (OXO), Arlene (XOX), and Diane (OXXO). X = sliding panel, O = fixed panel, as viewed from clerks side.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Install window in accordance with manufacturer's printed instructions and recommendations. Repair damaged units as directed (if approved by the manufacturer and the architect) or replace with new units.

3.2 CLEANING

A. Clean frame and glazing surfaces after installation, complying with requirements contained in the manufacturer's instructions. Remove excess glazing sealant compounds, dirt or other substances.

3.3 **PROTECTION**

A. Institute protective measures required throughout the remainder of the construction period to ensure that all the windows do not incur any damage or deterioration, other than normal weathering, at the time of acceptance.

END OF SECTION





Expiration Date

www.strengthengineering.com



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AR05.101

EXTERIOR BUILDING ELEVATION (EAST) 1/8" = 1'-0"











	232 Horner Street
ENGINEERING	Johnstown, PA 15902
	['] ph: (814)536-1651
	fax: (814)536-5732
	CJL Proiect # 18-0236



of the State of Maryland.

xpiration Date: 3/30/2021

icense No. 25983

CHECKED: BKR

APPROVED: MRS

Washington County, MD HAGERSTOWN REGIONAL AIRPORT HGR

THIS JOB IS BEING DONE IN MULTIPLE PHASES. THE HC SHALL REFER TO ARCHITECTURAL PHASING PLANS AND COORDINATE HIS WORK WITH THE PHASE IN CONSTRUCTION. IF IT IS REQUIRED TO DO WORK OUT OF PHASE HC SHALL COORDINATE THIS WITH THE ARCHITECT, BUILDING OWNER & ALL PARTIES INVOLVED. AT NO TIME SHOULD ANY OCCUPIED AREAS BE WITH OUT SERVICE DURING CONSTRUCTION.



THE ROOF ON THE EXISTING BUILDING HAS BEEN RECENTLY REDONE. THE HVAC CONTRACTOR MUST HIRE AN APPROVED ROOFING SUB-CONTRACTOR TO MAINTAIN EXISTING ROOF WARRANTY THROUGH OUT

ROJECT TITLE: TERMINAL BUILDING EXPANSION							
N	SHEET NO.: ME03.101						
DATE: MARCH 2019	93 OF 117						
	DING EXPANSION						

POV	VER
	PANELBOARD
G	GENERATOR
TVSS	TRANSIENT VOLTAGE SURGE SURPRESSOR
\square	TRANSFORMER (DRAWN TO SIZE)
PS	POWER SUPPLY
J	JUNCTION BOX
J	JUNCTION BOX - CEILING
РВ	PULL BOX
ĒÐ	EMERGENCY POWER OFF PUSH BUTTON
Ľ	NON-FUSIBLE SAFETY SWITCH
Ľ	FUSIBLE SAFETY SWITCH
	MOTOR STARTER - FURNISHED BY MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR SHALL INSTALL AND PROVIDE POWER CONNECTION
⊠r	COMBINATION STARTER/DISCONNECT - FURNISHED BY MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR SHALL INSTALL AND PROVIDE POWER CONNECTION
VFD	VARIABLE FREQUENCY DRIVE - FURNISHED BY MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR SHALL INSTALL AND PROVIDE POWER CONNECTION
\mathbb{M}	MOTOR
\$ ™	MOTOR STARTING SWITCH
\downarrow	MECHANICAL CEILING FAN
	MECHANICAL SPLIT SYSTEM CASSETTE
PP	POWER POLE FOR TSA EQUIPMENT
<u>⊺ELE</u> ▼	COMMUNICATIONS TELEPHONE OUTLET(S) @ 18" AFF. U.N.O. WITH 3/4" RACEWAY TERMINATED ABOVE NEAREST ACCESSIBLE CEILING OR TO TELEPHONE TERMINAL BOARD IF NO ACCESSIBLE CEILING AVAILABLE.
∇	DATA OUTLET(S) @ 18" AFF. U.N.O. WITH 3/4" RACEWAY TERMINATED ABOVE NEAREST ACCESSIBLE CEILING OR TO DATA EQUIPMENT RACK IF NO
-	
V	AFF. U.N.O. WITH 1" RACEWAY TERMINATED ABOVE NEAREST ACCESSIBLE CEILING OR TO TELE/DATA TERMINAL AREA IF NO ACCESSIBLE CEILING AVAILABLE
w	WALL MTD. TELEPHONE OUTLET WITH 3/4" RACEWAY TERMINATED ABOVE NEAREST ACCESSIBLE CEILING OR TO TELEPHONE TERMINAL BOARD IF NO ACCESSIBLE
	CEILING AVAILABLE.
WAP	DATA OUTLET FOR WIRELESS ACCESS POINT. PROVIDE DEVICE BACK BOX AND 3/4" RACEWAY TERMINATED ABOVE ACCESSIBLE CEILING.
	DATA OUTLET FOR WIRELESS ACCESS POINT. PROVIDE DEVICE BACK BOX AND 3/4" RACEWAY TERMINATED ABOVE ACCESSIBLE CEILING.
$ abla_{\text{DS}}$	DATA OUTLET FOR DOOR SECURITY. PROVIDE DEVICE BACK BOX AND 3/4" RACEWAY TERMINATED ABOVE ACCESSIBLE

CEILING.

......

RECEPTACLES

Φ	SINGLE 125V-20A RECEPTACLE
Φ	DUPLEX 125V-20A RECEPTACLE
₽ ₽	DUPLEX EMERGENCY RECEPTACLE
FR	DUPLEX RECEPTACLE FOR FREEZER
	DUPLEX RECEPTACLE FOR VENDING MACHINE
GF₿	DUPLEX RECEPTACLE GROUND FAULT INTERRUPTER TYPE
™ Ф	DUPLEX RECEPTACLE FOR TELEVISION/ DISPLAY
wr d	DUPLEX RECEPTACLE GROUND FAULT INTERRUPTER TYPE. INSTALL IN WEATHERRESITANT HOUSING
4	DOUBLE DUPLEX RECEPTACLE
₽	DOUBLE DUPLEX EMERGENCY RECEPTACLE
^{™™} Φ	DUPLEX RECEPTACLE FOR MICROWAVE. MT. AS DIRECTED BY ARCHITECT
USB D	DUPLEX RECEPTACLE WITH (2) USB INSERTION OUTLETS.
^{EWC}	RECEPTACLE ELECTRIC WATER COOLER GROUND FAULT INTERRUPTER TYPE
\bigcirc	SPECIAL RECEPTACLE - COORDINATE EXACT TYPE WITH EQUIPMENT AT SITE
	DUPLEX RECEPTACLE FOR ICE MACHINE
❼Φ	FLUSH FLOOR BOX WITH DUPLEX RECEPTACLE & TELE/DATA OUTLET AND COVER PLATE.
	EMERGENCY FLUSH FLOOR BOX WITH DUPLEX RECEPTACLE & TELE/DATA OUTLET AND COVER PLATE.
*	INDICATES MOUNT DEVICE 6"-8" ABOVE COUNTER TOP
MISC	ELLANEOUS
\frown	BRANCH CIRCUIT WIRING CONCEALED IN WALLS OR ABOVE CEILING
	HOME RUN BACK TO PANEL
	CONDUIT EXPOSED ON WALLS OR CEILING
	EXISTING CONDUIT TO REMAIN - REMOVE EXISTING CONDUCTORS & INSTALL NEW CONDUCTORS AS INDICATED

CONDUIT TURNED DOWN

SOME OF THESE SYMBOLS MAY NOT BE USED UNDER THIS PROJECT. SEE THE CONTRACTOR NOTES FOR ADDITIONAL REQUIREMENTS.

T DESIGN CONSULTANTS INC.	6031 UNIVERSITY BLVD. SUITE 330 ELLICOTT CITY, MD 21043 PHONE: 410-465-9600 FAX: 410-465-9602	SEAL: Provide the second secon	Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws	DESIGNED: DJB DRAWN: DJB	No. 1	DATE 06/05/2019
ENGINEERIN	232 Horner Street J G Johnstown, PA 15902		of the State of Maryland.	CHECKED: TCB		
	fax: (814)536-1651 fax: (814)536-5732 CJL Project # 18-0236	SCONAL ENO	License No. 25964 Expiration Date: 2/23/2021	APPROVED: TCB		



DESCRIPTION

ADDENDUM 4

ANEN

Washington County, MD HAGERSTOWN REGIONAL AIRPORT

HGR

GENERAL PROJECT NOTES

- G1. UNLESS OTHERWISE NOTED, PROVIDE ALL EQUIPMENT SHOWN ON THE PLANS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL SYMBOLS SHOWN ON THE PLANS WITH THE SYMBOL LIST. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE INTENT OF ANY SYMBOL THAT IS SHOWN ON THE PLANS AND NOT INDICATED ON THE SYMBOL LIST WITH THE ELECTRICAL ENGINEER.
- G2. COORDINATE THE FINAL LOCATIONS OF ALL LIGHT FIXTURES WITH THE ARCHITECT'S REFLECTED CEILING PLANS. REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO INSTALLATION.
- G3. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE CONSTRUCTION AREA THREE (3) WORKING DAYS NOTICE BEFORE COMMENCE DIGGING. NOTIFY THE LOCAL OR STATE AUTHORITY HAVING JURISDICTION AND WAIT THE REQUIRED TIME BEFORE COMMENCING TO DIG.
- G4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE PROFESSIONAL IF A SYMBOL IS USED ON THE PROJECT BUT DOES NOT SHOW IN THE SYMBOL LIST PRIOR TO BID.
- G5. THE CONTRACTOR SHALL COORDINATE CONDUIT RUNS, CABLE TRAY, LIGHTING FIXTURES AND OTHER EQUIPMENT LOCATIONS WITH THE OTHER TRADE CONTRACTORS TO AVOID CONFLICTS.

EXISTING CONDITIONS/DEMOLITION NOTES

- D1. CONDUIT/WIRING THAT MAY BE CONCEALED IN WALLS THAT ARE BEING REMOVED (WHETHER OR NOT SUCH CONDUIT/WIRING IS SPECIFICALLY INDICATED) SHALL BE CAPPED AT THE APPROPRIATE LOCATION UNLESS SUCH CONDUIT/WIRING MUST REMAIN AS PART OF AN ACTIVE SYSTEM. THE STATUS OF SUCH CONDUIT/WIRING AS TO BE ACTIVE OR INACTIVE SHALL BE VERIFIED BY THIS CONTRACTOR BEFORE ANY DISCONNECTION, CAPPING, OR RELOCATION WORK IS PERFORMED. EXISTING CONDUIT/WIRING THAT MUST REMAIN AS A PART OF AN ACTIVE SYSTEM SHALL BE RELOCATED AND REARRANGED AS REQUIRED TO MAINTAIN CONTINUITY OF THAT CIRCUIT, UNLESS NOTED OTHERWISE, ALL SUCH CONDUIT/WIRING SHALL BE CONCEALED.
- D2. CUT, PATCH, AND RESTORE ALL OPENINGS IN EXISTING STRUCTURE REQUIRED FOR ELECTRICAL WORK. CONTRACTOR SHALL ALSO REMOVE PORTIONS OF EXISTING CEILINGS, WALLS, AND FLOORS NECESSARY FOR REMODELING AND RESTORING SUCH CEILINGS, WALLS AND FLOORS AFTER ELECTRICAL WORK INSTALLATION IS COMPLETE.
- D3. E.C. SHALL BE RESPONSIBLE FOR TEMPORARILY FEEDING AND BACKFEEDING ELECTRICAL DISTRIBUTION EQUIPMENT, PANELBOARDS, BRANCH CIRCUITS, SYSTEMS AND ANY OTHER ELECTRICAL EQUIPMENT TO MAINTAIN CONTINUITY DURING VARIOUS PHASES OF CONSTRUCTION. COORDINATE WORK WITH NEW WORK DRAWINGS.
- D4. MAINTAIN CONTINUITY OF FIRE ALARM, SECURITY AND ALL SYSTEMS AS REQUIRED DURING VARIOUS PHASES OF WORK.
- D5. WIRING FOR CONTINUITY OF POWER AND SYSTEMS ADJACENT AREAS SHALL REMAIN UNDISTRURBED OR BE RECONNECTED AS REQUIRED TO MAINTAIN SERVICE. PATCH AND PAINT ALL OPENINGS LEFT IN EXISTING CONSTRUCTION TO MATCH SURROUNDING CONSTRUCTION.
- D6. REMOVE ABANDONED CONDUIT, WIRE, JUNCTION BOXES, WORK LIGHTS. ETC WITHIN DEMOLITION AREA EVEN THOUGH THEY ARE NOT SHOWN ON PLAN.
- D7. THE CONTINUITY OF EXISTING CIRCUITS THAT MAY BE INTERRUPTED BY THE ALTERATIONS, EVEN THOUGH THEY MAY NOT BE INDICATED ON THE PLAN SHALL BE MAINTAINED.
- D8. THE REMOVAL OR RELOCATION OF EXISTING ELECTRICAL EQUIPMENT PRESENTLY CONCEALED IN EXISTING CONSTRUCTION SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVAL OR RELOCATION.

GENERAL ELECTRICAL NOTES

- 1. COMPLY WITH "GENERAL CONDITIONS" SET FORTH IN THE DOCUMENTS.
- 2. WORK SHALL COMPLY WITH LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
- 3. OBTAIN AND PAY FOR ALL PERMITS REQUIRED BY LOCAL ORDINANCES.
- 4. GUARANTEE THE ELECTRICAL WORK FOR ONE YEAR FROM DATE OF FINAL CERTIFICATE.
- 5. SUBMIT SHOP DRAWINGS FOR EQUIPMENT.
- 6. SALVAGED ELECTRICAL EQUIPMENT, NOT DESIGNATED BY THE OWNER FOR HIS USE, SHALL BE REMOVED FROM THE PREMISES BY THIS CONTRACTOR.
- 7. PRIOR TO SUBMITTING A BID, THE CONTRACTOR SHALL VISIT THE SITE TO EXAMINE FIRST HAND THE EXISTING CONDITIONS. ANY CLARIFICATIONS REQUIRED SHALL BE REQUESTED AT THAT TIME.
- 8. REMOVE ALL DEAD WIRE, CONDUIT, AND BOXES NOT NECESSARY TO THE NEW LAYOUT.
- 9. ALL NEW WIRING REQUIRED SHALL BE IN EMT CONDUIT WITH COMPRESSION FITTINGS.
- 10. CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS AND LABOR REQUIRED TO PERFORM THIS WORK IN A NEAT AND WORKMANLIKE MANNER WITH ALL DEBRIS REMOVED FROM THE BUILDING. HE SHALL EXERCISE CARE TO CREATE A MINIMUM AMOUNT OF DUST AND DIRT AND SHALL PROVIDE DROP CLOTHS AND OTHER DUST PROOFING MATERIAL TO PREVENT DUST AND DIRT FROM ENTERING OTHER PARTS OF THE BUILDING OR DAMAGING EQUIPMENT. THIS CONTRACTOR WILL BE RESPONSIBLE FOR ALL DAMAGE CAUSED BY HIM, HIS EMPLOYEES OR SUB-CONTRACTORS AND SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF THE SAME WITHOUT ADDITIONAL COMPENSATION.
- 11. NO POWDER ACTUATED FASTENING DEVICE SHALL BE USED WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
- 12. THE CONTRACTOR AND HIS SUB-CONTRACTORS SHALL KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL. AT THE END OF EACH DAY THE WORK AREA SHALL BE LEFT IN A CLEAN CONDITION AS DEFINED BY THE ARCHITECT.
- 13. DURING ANY DRILLING OPERATION, AN INDUSTRIAL TYPE VACUUM MUST BE USED TO ELIMINATE DUST. IN ADDITION, A PLUNGER HEAD OR EQUIVALENT MUST BE USED WITH THE DRILL AND VACUUM WHEN DRILLING OVERHEAD.
- 14. PROVIDE AS-BUILT DRAWINGS TO OWNER UPON COMPLETION OF THE PROJECT.

TERMINAL BUILDING EXPANSION

GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

CALE: AS INDICATED

PROJECT TITLE

SHEET TITLE

FAA AIP No.: 3-24-0019-059-2018 Bid No.: PUR-1410 MAA Grant No.: MAA-GR-19-009

SHEET No EL00.001 99 OF 117



- $\langle 10 \rangle$ CONNECT TO EXISTING 20A-1P CIRCUIT BREAKER IN PANEL 'R1', PREVIOUSLY SERVING RECEPTACLE LOADS, MADE AVAILABLE DUE TO RENOVATIONS. SPARE CIRCUIT BREAKERS ARE ACCEPTABLE TO BE UTILIZED. PROVIDE NEW WIRE AND CONDUIT FROM PANELBOARD AND EQUIPMENT CONNECTION.
- (11) CONNECT TO EXISTING EMERGENCY 20A-1P CIRCUIT BREAKER IN PANEL ER', PREVIOUSLY SERVING RECEPTACLE LOADS, MADE AVAILABLE DUE TO RENOVATIONS. SPARE CIRCUIT BREAKERS ARE ACCEPTABLE TO BE UTILIZED. PROVIDE NEW WIRE AND CONDUIT FROM PANELBOARD AND EQUIPMENT CONNECTION.
- (12) CONNECT TO EXISTING 20A-1P CIRCUIT BREAKER IN PANEL 'R2', PREVIOUSLY SERVING RECEPTACLE LOADS, MADE AVAILABLE DUE TO RENOVATIONS. SPARE CIRCUIT BREAKERS ARE ACCEPTABLE TO BE UTILIZED. PROVIDE NEW WIRE AND CONDUIT FROM PANELBOARD AND EQUIPMENT CONNECTION.
- (13) CONNECT TO EXISTING 20A-1P CIRCUIT BREAKER IN PANEL 'R3', PREVIOUSLY SERVING RECEPTACLE LOADS, MADE AVAILABLE DUE TO RENOVATIONS. SPARE CIRCUIT BREAKERS ARE ACCEPTABLE TO BE UTILIZED. PROVIDE NEW WIRE AND CONDUIT FROM PANELBOARD AND EQUIPMENT CONNECTION.
- \ \langle 14 \rangle PROVIDE NEW 20A-1P CIRCUIT BREAKER IN PANEL 'R3'. PROVIDE NEW WIRE AND CONDUIT FROM PANELBOARD AND EQUIPMENT CONNECTION. PROVIDE (4) #12 & (1) #12 EGC IN 3/4" CONDUIT.
- $\langle 15 \rangle$ RUN CONDUITS TO EACH DEVICE UNDER FLOOR SLABS TO WALL AND CONCEALIN WALL TO ABOVE NEAREST ACCESSIBLE CEILING.
- (16) PROVIDE 100A-3P DISCONNECT SWITCH FUSED AT 80A
- $\langle 17 \rangle$ CONNECT TO EXISTING CIRCUIT PREVIOUSLY SERVING THE ELECTRIC GARAGE DOORS.
- (18) NEW EMERGENCY TRANSFORMER TSA. 15 kVA, 480-208/120V, 3PHASE. PROVIDE NEW 40A-3P CIRCUIT BREAKER IN PANEL 'EL'. CONNECT NEW TRANSFORMER 'TSA' TO NEW 40A-3P CIRCUIT BREAKER IN PANEL 'EL'.
- $\langle 19 \rangle$ NEW EMERGENCY PANELBOARD TSA. 208/120V, 3PHASE, 4 WIRE.
- $\langle 20 \rangle$ PROVIDE POWER POLE FOR TDC/CAT. PROVIDE (1)DEVICE PLATE FOR (4) CATEGORY 6 DATA JACKS. PROVIDE (2) DEDICATED DUPLEX RECEPTACLES. PROVIDE THE EXACT NUMBER OF DUPLEX RECEPTACLES AS SPECIFIED BY TSA. COORDINATE LOCATION AND REQUIREMENTS WITH TSA PRIOR TO ROUGH-IN.

- PROVIDE POWER POLE FOR AVS/ETD/BLS. PROVIDE (2) DEVICE PLATES FOR (8) CATEGORY 6 DATA JACKS. PROVIDE (2) DEDICATED DUPLEX RECEPTACLES. PROVIDE THE EXACT NUMBER OF DUPLEX RECEPTACLES AS SPECIFIED BY TSA. COORDINATE LOCATION AND REQUIREMENTS WITH TSA PRIOR TO ROUGH-IN. ···········
- $\langle 22 \rangle$ ALL WIRING FOR THE TELEVISIONS WHERE METAL CEILING DECKING IS USED SHALL BE MC CABLE CONCEALED WITHIN DECKING SYSTEM DOWN TO THE TUBE STEEL MOUNTING BRACKET TO THE TELEVISION. COORDINATE WHERE ACCESS PANELS WILL BE REQUIRED AT TELEVISION LOCATIONS WITH THE GC. RUN CONDUIT ALONG THE PURLIN TO FEED THE ACCESS PANELS.
- 23 PROVIDE NEW 20A-1P CIRCUIT BREAKER IN EMERGENCY SUB PANEL. PROVIDE NEW WIRE AND CONDUIT FROM PANELBOARD AND EQUIPMENT CONNECTION. PROVIDE (4) #12 & (1) #12 EGC IN 3/4" CONDUIT.
- 24 EC TO PROVIDE (2) DEDICATED TELEPHONE LINES FOR THE FIRE ALARM CONTROL PANEL.
- (25) WEATHER RESISTANT FIRE ALARM STROBE AT FIREMAN'S CONNECTION. VERIFY EXACT LOCATION WITH FIRE PROTECTION CONTRACTOR.
- DISCONNECT SWITCH, FUSED AT 175A FOR RANSFORMER 'T3'. REFER TO RISER DIAGRAM FOR MORE INFORMATION DISCONNECT AND REMOVE EXISTING 30A-3P CIRCUIT BREAKER IN EXISTING PANEL 'DP SECTION 2". PROVIDE NEW 175A-3P CIRCUIT BREAKER. CONNECT NEW DISCONNECT SWITCH TO NEW 175A-3P CIRCUIT
- <u>/1</u> PROVIDE 200A-3P DISCONNECT SWITCH FUSED AT 150
- PROVIDE NEW 150A-3P CIRCUIT BREAKER, COORDINATE POWER REQUIREMENTS PRIOR TO PURCHASE. CONNECT PC AIR EQUIPMENT TO NEW 150A-3P CIRCUIT BREAKER. PROVIDE (4) #1/0 & (1) #6 EGC IN 2" CONDUIT

FIRE ALARM SYSTEM NOTES:

mmmmm

- THE EXISTING FIRE ALARM SYSTEM SHALL REMAIN IN PLACE UNTIL THE NEW FIRE ALARM SYSTEM IS FULLY OPERABLE. ONCE THE NEW FIRE ALARM SYSTEM IS FULLY FUNCTIONAL THE EXISTING FIRE ALARM SYSTEM AND DEVICES CAN BE REMOVED
- THE FIRE ALARM SYSTEM SHALL MEET ALL LOCAL AND NATIONAL CODES INCLUDING IBC, NFPA, AND STATE BUILDING CODES.
- ALL FIRE ALARM SYSTEM WIRING SHALL BE RUN IN RACEWAY . NO WIRING OTHER THAN THAT DIRECTLY ASSOCIATED WITH THE FIRE ALARM SYSTEM AND ITS AUXILIARY FUNCTION SHALL BE PERMITTED IN FIRE ALARM RACEWAYS.
- THE MINIMUM FIRE ALARM SYSTEM WIRE SIZE SHALL BE #14 AWG FOR INDICATING CIRCUITS AND #16 AWG FOR INITIATING AND ANNUNCIATION CIRCUITS. THE MINIMUM CONDUIT SIZE SHALL BE 3/4"
- 5. ALL VISUAL, AUDIO, AND AUDIO/VISUAL DEVICES MUST BE SYNCHRONIZED.

TERMINAL BUILDING EXPANSION

FIRST FLOOR PLAN - POWER & SYSTEMS

1/8" = 1'-0"

MARCH 2019

FAA AIP No.: 3-24-0019-059-2018 Bid No.: PUR-1410 MAA Grant No.: MAA-GR-19-009

SHEET N EL04.100 106 OF 117



NUMBERED NOTES

- 1 NEW PANELBOARD L1. 480/277V, 3PHASE, 4 WIRE. DISCONNECT AND REMOVE EXISTING 50A-3P CIRCUIT BREAKER IN EXISTING PANEL 'DP SECTION 2". PROVIDE NEW 150A-3P CIRCUIT BREAKER. CONNECT NEW PANEL 'L1' TO NEW 150A-3P CIRCUIT BREAKER. PROVIDE (4) #1/0 & (1) #6 EGC IN 2" CONDUIT.
- 2 NEW TRANSFORMER T3. 112.5 kVA, 480-208/120V, 3PHASE. THIS WORK AND EQUIPMENT SHALL BE COMPLETED UNDER THE BASE BID.
- (3) NEW PANELBOARD R5. 208/120V, 3PHASE, 4 WIRE. THIS WORK AND
- 4 PROVIDE POWER POLE FOR FRONT XRAY. PROVIDE (1)DEVICE PLATE FOR (2) CATEGORY 6 DATA JACKS. PROVIDE(1) DUPLEX RECEPTACLE, AND (1) L5-15R SIMPLEX RECEPTACLE. PROVIDE THE EXACT NUMBER OF DUPLEX RECEPTACLES AS SPECIFIED BY TSA. COORDINATE LOCATION AND REQUIREMENTS WITH TSA PRIOR TO ROUGH-IN.
- 5 PROVIDE POWER POLE FOR FRONT XRAY. PROVIDE (2)DEVICE PLATE FOR (8) CATEGORY 6 DATA JACKS. PROVIDE(3) DEDICATED RECEPTACLES, AND (1) 208V SINGLE PHASE 30A OUTLET FOR THE CT SCANNER. PROVIDE THE EXACT NUMBER OF DUPLEX RECEPTACLES AS SPECIFIED BY TSA. COORDINATE LOCATION AND REQUIREMENTS WITH TSA PRIOR TO ROUGH-IN.
- (6) EXISTING STUBBED UP CONDUIT AND CONDUCTORS SHALL BE RE-USED FOR THE NEW RECEPTACLES/DATA IN THIS AREA. PROVIDE CONDUIT AND CONDUCTOR EXTENSIONS, AS NECESSARY FOR A COMPLETE WORKING SYSTEM. COORDINATE MOUNTING LOCATION OF RECEPTACLES/DATA WITH ARCHITECT PRIOR TO ROUGH-IN. PROVIDE ALL ACCESSORIES AS NECESSARY FOR A COMPLETE WORKING SYSTEM.
- $\langle 7 \rangle$ RUN CONDUITS TO EACH DEVICE UNDER FLOOR SLABS TO WALL AND
- (8) PROVIDE POWER POLE FOR TDC/CAT. PROVIDE (1)DEVICE PLATE FOR (4) CATEGORY 6 DATA JACKS. PROVIDE (2) DEDICATED DUPLEX RECEPTACLES. PROVIDE THE EXACT NUMBER OF DUPLEX RECEPTACLES AS SPECIFIED BY TSA. COORDINATE LOCATION AND REQUIREMENTS WITH UNTSAPRIOR TO ROUGH-IN UNICONSCIENCE CONSCIENCE CONSCIE
- $\left< \frac{1}{9} \right>$ PROVIDE POWER POLE FOR AVS/ETD/BLS. PROVIDE (2)DEVICE PLATE FOR (8) CATEGORY 6 DATA JACKS. PROVIDE (2) DEDICATED DUPLEX RECEPTACLES. PROVIDE THE EXACT NUMBER OF DUPLEX RECEPTACLES AS SPECIFIED BY TSA. COORDINATE LOCATION AND REQUIREMENTS WITH TSA PRIOR TO ROUGH-IN.
- BAGGAGE MAKE-UP OFFICE LEEQ - 13 120 OFFICE LEEQ - 15 TICKET COUNTERS **K**6> LEEQ - 12 LOBBY-2 109-2 VESTIBULE

PHASING NOTE:

THIS JOB IS BEING DONE IN MULTIPLE PHASES. THE EC SHALL REFER TO ARCHITECTURAL PHASING PLANS AND COORDINATE HIS WORK WITH THE PHASE IN CONSTRUCTION. IF IT IS REQUIRED TO DO WORK OUT OF PHASE EC SHALL COORDINATE THIS WITH THE ARCHITECT, BUILDING OWNER & ALL PARTIES INVOLVED. AT NO TIME SHOULD ANY OCCUPIED AREAS BE WITH OUT SERVICE DURING CONSTRUCTION.

TERMINAL BUILDING EXPANSION

SHEET TITLE

- **FIRST FLOOR PLAN POWER ALT BID 6**
- SCALE: 1/8" = 1'-0"
- DATE: MARCH 2019

- (10) NEW EMERGENCY PANELBOARD TSA. 208/120V, 3PHASE, 4 WIRE.
- (11) NEW EMERGENCY PANELBOARD LEEQ. 208/120V, 3PHASE, 4 WIRE.
- (12) NEW EMERGENCY TRANSFORMER EEQ. 30 kVA, 480-208/120V, 3PHASE.
- (13) NEW EMERGENCY PANELBOARD HEEQ. 480/277V, 3PHASE, 4 WIRE.
- (14) NEW EMERGENCY PANELBOARD HLS. 480/277V, 3PHASE, 4 WIRE.
- (15) NEW EMERGENCY PANELBOARD LLS. 208/120V, 3PHASE, 4 WIRE.
- (16) NEW EMERGENCY TRANSFORMER LS. 30 kVA, 480-208/120V, 3PHASE.
- (17) NEW AUTOMATIC TRANSFER SWITCH 'ATS-LS'. 30A, 480/277V, 3PHASE, 4 POLE. CONNECT NEW 'ATS-LS' TO EXISTING 30A-3P CIRCUIT BREAKER IN EXISTING PANEL 'DP SECTION 2", MADE AVAILABLE DUE TO RENOVATIONS. PROVIDE (4) #10 & (1) #10 EGC IN 3/4" CONDUIT.
- (18) NEW AUTOMATIC TRANSFER SWITCH 'ATS-EQ'. 125A, 480/277V, 3PHASE, 4 POLE. DISCONNECT AND REMOVE EXISTING 30A-3P CIRCUIT BREAKER IN EXISTING PANEL 'DP SECTION 2", MADE AVAILABLE DUE TO RENOVATIONS. PROVIDE NEW 125A-3P CIRCUIT BREAKER. CONNECT NEW 'ATS-EQ' TO NEW 125A-3P CIRCUIT BREAKER. PROVIDE (4) #1 & (1) #6 EGC IN 2" CONDUIT.
- (19) NEW REMOTE GENERATOR ANNUNCIATOR AT MANNED LOCATION. COORDINATE THIS LOCATION WITH THE OWNER PRIOR TO ROUGH-IN.
- 20 NEW AUTOMATIC TRANSFER SWITCH 'ATS'. 70A, 480/277V, 3PHASE, 4 WIRE. CONNECT TO EXISTING CIRCUIT BREAKER PREVIOUSLY SERVING THE DEMOLISHED AUTOMATIC TRANSFER SWITCH. PROVIDE CONDUCTOR AND CONDUIT EXTENSIONS AS NECESSARY FOR A COMPLETE WORKING SYSTEM.
- $\langle 21 \rangle$ NEW 200A-3P DISCONNECT SWITCH FUSED AT 175A FOR TRANSFORMER 'T3'. THIS WORK AND EQUIPMENT SHALL BE COMPLETED UNDER THE BASE BID.

FAA AIP No.: 3-24-0019-059-2018 Bid No.: PUR-1410 MAA Grant No.: MAA-GR-19-009

SHEET N EL04.200 107 OF 117



ENGINEERING 232 Horner Street Johnstown, PA 15902 ph: (814)536-1651 fax: (814)536-5732 CJL Project # 18-0236



DRAWN: Author and that I am a duly licensed professional engineer under the laws of the State of Maryland. CHECKED: Checker

License No. 25964 Expiration Date: 2/23/2021 APPROVED: Approver





PROJECT TITLE: TERMI	NAL BUILDING EXPANSION	FAA AIP No.: 3-24-0019-059-2018 Bid No.: PUR-1410 MAA Grant No.: MAA-GR-19-009
SHEET TITLE:		
IT CONDUIT ROU	TING PLAN	EL07.100
SCALE: 1/8" = 1'-0"	DATE: MARCH 2019	113 OF 117

Panel: R5

Location: ELECTRICAL 130 Supply From: T3 Mounting: Surface Enclosure: Type 1

Notes:

скт	Circuit Description	Trip	Poles	Α	В	С	A	В	С	Poles	Trip	Circuit Description	скт
1	•			0.90			1.68				•	•	2
3	CF-1,2, & 3	20	3		0.90			1.68		3	20	CF-4 & 5	4
5						0.90			1.68				6
7				1.68			4.02						8
9	CF-6 & 7	20	3		1.68			4.02		3	60	EAC-3	10
11						1.68			4.02				12
13				4.02			4.02						14
15	EAC-4	60	3		4.02			4.02		3	60	EAC-5	16
17						4.02			4.02				18
19				0.68			0.68						20
21	EAC-6	20	3		0.68			0.68		3	20	EAC-7	22
23						0.68			0.68				24
25	RECEPTACLES - HOLD ROOM 123	20	1	0.72			0.54			1	20	RECEPTACLES - HOLD ROOM 123	26
27	RECEPTACLES - HOLD ROOM 123	20	1		0.50			0.48		1	20	VENDING MACHINE - HOLD ROOM 123	28
29	VENDING MACHINE - HOLD ROOM 123	20	1			0.30			0.30	1	20	VENDING MACHINE - HOLD ROOM 123	30
31	VENDING MACHINE - HOLD ROOM 123	20	1	0.30			0.90			1	20	RECEPTACLES - HOLD ROOM 123	32
33	RECEPTACLE - CAFE 127	20	1		0.18			0.76		1	20	UC REFRIGERATOR - CAFE 127	34
35	FREEZER - CAFE 127	20	1			0.66			0.66	1	20	REFRIGERATOR - CAFE 127	36
37		20	2	2.40			1.18			1	20	P-1	38
39	ICE MARER - CAFE 127	20	2		2.40			0.50		1	20	MAIN ATC CONTROL PANEL	40
41	BOILER CIRCULATING PUMP	20	1			0.20			0.90	1	20	RECEPTACLES - CONFERENCE 129	42
43	DISPLAY CONFERENCE 129	20	1	0.25			0.36			1	20	FLOOR BOX - CONFERENCE 129	44
45	EXTERIOR RECEPTACLES	20	1		0.36			0.36		1	20	RECEPTACLES - CORRIDOR 138, IT 131,	46
47	EWC - CAFE 127	20	1			0.18			0.90	1	20	RECEPTACLES - WOMEN 125, MEN 126,	48
49	RECEPTACLES - OFFICE 128	20	1	0.54			0.36			1	20	RECEPTACLES - HOLD ROOM 123	50
51		20	2		1.08			0.50		1	20	DISPLAYS - HOLD ROOM 123	52
53	33RC0-2	20	2			1.08			0.50	1	20	DISPLAYS - HOLD ROOM 123	54
55	DISPLAYS - HOLD ROOM 123	20	1	0.25			0.50			1	20	DISPLAYS - WAITING 107	56
57	UNDER BAR ICE MAKER	20	1		0.80			0.72		1	20	UNDER BAR USB RECEPTACLES	58
59	Spare	20	1			0.00			0.00	1	20	Spare	60
61	Spare	20	1	0.00			0.00			1	20	Spare	62
63	Spare	20	1		0.00			0.00		1	20	Spare	64
65	Spare	20	1			0.00			0.00	1	20	Spare	66
67	Spare	20	1	0.00			0.00			1	20	Spare	68
69	Spare	20	1		0.00			0.00		1	20	Spare	70
71	Spare	20	1			0.00			0.00	1	20	Spare	72
73	Spare	20	1	0.00			0.00			1	20	Spare	74
75	Spare	20	1		0.00			0.00		1	20	Spare	76
77	Spare	20	1			0.00			0.00	1	20	Spare	78
79	Spare	20	1	0.00			0.00			1	20	Spare	80
81	Spare	20	1		0.00			0.00		1	20	Spare	82
83	Spare	20	1			0.00			0.00	1	20	Spare	84
		Tot	al Loadi	25.0	7 61/1	26.20		1 22 26		1			

DESCRIPTION

ADDENDUM 4

Volts: 120/208 Wye

Phases: 3

Wires: 4

A.I.C. Rating: 65 kAIC

Mains Type: MCB

Mains Rating: 400 A

MCB Rating: 350 A



6031 UNIVERSITY BLVD. SUITE 330 ELLICOTT CITY, MD 21043 PHONE: 410-465-9600 FAX: 410-465-9602



DESIGNED: DJB
DRAWN: DJB

Expiration Date: 2/23/2021

CHECKED: TCB License No. 25964

APPROVED: TCB



Location:

Supply From: TSA Mounting: Recessed

Enclosure: Type 1

Notes:

				Α	в	с	А	в	с				
СКТ	Circuit Description	Trip	Poles							Poles	Trip	Circuit Description	СКТ
1	RECEPTACLES - HOLD ROOM	20	1	0.36			0.18			1	20	DURESS ALARM RECEIVER	2
3	AIT	20	1		0.18			0.18		1	20	CO-LOCATED ETD	4
5	WTMD	20	1			1.00			0.18	1	20	DURESS ALARM REPEATER	6
7	QUE CONV. AND CONVENIENCE	20	1	0.18			0.18			1	20	WTMD	8
9	TDC/ETD	20	1		0.18			0.18		1	20	TDC/ETD	10
11	AT XRAY	20	1			0.20			0.20	1	20	AIT	12
13		20	2	2.50			0.20			1	20	CO-LOCATED ETD	14
15	CI SCANNER	30	2		2.50			0.18		1	20	STSO	16
17	STSO	20	1			0.18			0.18	1	20	ETD/BLS/AVS	18
19	ETD/BLS/AVS	20	1	0.18			0.00			1	20	Spare	20
21	Spare	20	1		0.00			0.00		1	20	Spare	22
23	Spare	20	1			0.00			0.00	1	20	Spare	24
25	Spare	20	1	0.00			0.00			1	20	Spare	26
27	Spare	20	1		0.00			0.00		1	20	Spare	28
29	Spare	20	1			0.00			0.00	1	20	Spare	30
Total Load			al Load:	4.03	kVA	3.90	kVA	1.94	kVA				

35 A

16 A

Location: Supply From: Mounting: Enclosure:

	скт	Circuit Description	Trip	Poles	Α	В	С	Α	В	С	Poles	Trip	Circuit Description	скт
	1				2.00			1.99			1	20	EVVB-01	2
	3	EVVB-02	20	3		2.00			4.01		1	20	EVVB-03	4
	5						2.00			2.50	1	20	EVVB-05	6
	7				3.00			1.51			1	20	EVVB-07	8
	9	EVVB-04	20	3		3.00			1.51		1	20	EVVB-09	10
	11						3.00			1.99	1	20	EVVB-11	12
	13	EVVB-06	20	1	1.51			4.01			1	20	EVVB-13	14
	15					1.50			2.00					16
	17	EVVB-08	20	3			1.50			2.00	3	20	EVVB-14	18
ז <u>ו</u>	~~~18~		\sim	\sim	1.50	\sim	\sim	Տ 2.00						20
}	21					17.72		$\langle \rangle$	3.50		1	20	EVVB-15	22
{	23	BID 1	80	3			17.72	5		1.99	1	20	EVVB-12	24
ζ	25				17.72			31.99			1	20	EVVB-10	26
٢	-12k	······································	\sim	m	\sim	1.33~	\cdots	~	3.06					28
	29	RTU-2	20	3			1.33			3.06	3	20	RTU-1	30
	31				1.33			3.06						32
	33					0.84			3.06					34
	35	RTU-4	20	3			0.84			3.06	3	20	RTU-3	36
	37				0.84			3.06						38
	39					2.10			3.88					40
	41	RTU-6	20	3			2.10			3.88	3	30	RTU-5	42
	43				2.10			3.88						44
	45	Spare	20	1		0.00			1.33					46
	47	Spare	20	1			0.00			1.33	3	20	RTU-7	48
	49	Spare	20	1	0.00			1.33						50
	51	Spare	20	1		0.00			0.00		1	20	Spare	52
	53	Spare	20	1			0.00			0.00	1	20	Spare	54
	55	Spare	20	1	0.00			0.00			1	20	Spare	56
	57	Spare	20	1		0.00			0.00		1	20	Spare	58
	59	Spare	20	1			0.00			0.00	1	20	Spare	60
			Tot	al Load:	52.82	2 kVA	50.82	kVA	48.3	kVA]	i		



Panel: TSA BASE BID

Volts: 120/208 Wye Phases: 3 Wires: 4

A.I.C. Rating: 65 kAIC Mains Type: MCB Mains Rating: 100 A MCB Rating: 40 A

Panel: L1 BASE BID

EXISTING DP SECTION I	
Recessed	
Туре 1	

Total Amps: 36 A

Phases: 3 Wires: 4

Volts: 480/277 Wye

A.I.C. Rating: 65 kAIC Mains Type: MCB Mains Rating: 225 A MCB Rating: 225 A

TERMINAL BUILDING EXPANSION

ELECTRICAL SCHEDULES

SCALE: AS INDICATED

DATE: MARCH 2019

FAA AIP No.: 3-24-0019-059-2018 Bid No.: PUR-1410 MAA Grant No.: MAA-GR-19-009

SHEET NO.: EL09.200 115 OF 117

	Panel: HEEQ				Panel: HLS			
	Location: ELECTRICAL Supply From: ATS EQ	- 130 Volts: 480/277 Wye Phases: 3	A.I.C. Rating: 65 kAIC Mains Type: MCB		Location: ELECTRICAL 130 Supply From: ATS LS	Volts: 480/277 Wye Phases: 3	A.I.C. Rating: 65 kAIC Mains Type: MCB	
	Mounting: Surface Enclosure: Type 1	Wires: 4	Mains Rating: 125 A MCB Rating: 125 A		Mounting: Surface Enclosure: Type 1	Wires: 4	Mains Rating: 100 A MCB Rating: 30 A	
Notes:				Notes:				
		A B C A B C				A B C A B C		
CKT	Circuit Description	Trip Poles Pole Poles 10.46 3.06 9	s Trip Circuit Description CK	T CKT 1 1	Circuit Description	Trip Poles 1.50 0.55	PolesTripCircuit DescriptionCKT120LIGHTING2	
3 5	TRANSFORMER EEQ	60 3 11.40 3.06 3 60 6.82 3.06 3	20 RTU-1 4 6	3 5	TRANSFORMER LS	20 3 0.25 0.71 1.00 0.47	1 20 LIGHTING 4 1 20 LIGHTING 6	
7 9	RTU-2	20 3 1.33 3.06 3.06	20 RTU-3 8	7 9	LIGHTING	20 1 2.70 0.38 20 1 3.71 3.71	1 20 LIGHTING 8 1 20 LIGHTING 10	
11 13		1.33 3.06 0.84 3.88	12	2 11 + 13	LIGHTING Spare	20 1 0.17 0.03 20 1 0.00 0.00 0.03	1 20 EXIT SIGNS 12 1 20 Spare 14	
15 17	RTU-4	20 3 0.84 3.88 3 0.84 0.84 3.88	30 RTU-5 16	15 3 17	Spare Spare	20 1 0.00 0.00 20 1 0.00 0.00	1 20 Spare 16 1 20 Spare 18	
19 21	RTU-6	20 3 2.10 1.33 3	20 RTU-7 22) <u>19</u> 2 21	Spare Spare	20 1 0.00 0.00 20 1 0.00 0.00 0.00	1 20 Spare 20 1 20 Spare 22	
23 25		2.10 1.33 0.00 0.00	22	23 25	Spare Spare	20 1 0.00 0.00 20 1 0.00 0.00	1 20 Spare 24 1 20 Spare 26	
27	Spare	20 3 0.00 0.00 3	20 Spare 28	3 27	Spare	20 1 0.00 0.00 20 1 0.00 0.00	1 20 Spare 28 1 20 Spare 30	
20		Total Load: 26.05 kVA 26.99 kVA 22.41 kVA Total Ammar 20.4 20.4 21.4			opuic	Total Load: 5.11 kVA 8.37 kVA 1.68 kVA Total Ammeri 20 A 20 A 0 A		
	Panel: LEEQ				Panel: LLS			
	Location:	Volts: 120/208 Wye	A.I.C. Rating: 65 kAIC Mains Type: MCB		Location: CORRIDOR 138	Volts: 120/208 Wye	A.I.C. Rating: 65 Mains Type: MCB	
	Mounting: Recessed	Wires: 4	Mains Rating: 100 A		Mounting: Recessed	Wires: 4	Mains Rating: 100 A MCB Rating: 30 A	
Notes:	LICIOSULE. Type I		mod rating. 100 A	Notee	LICIOSULE. Type I			
Notes.				10005.				
СКТ	Circuit Description	Trip Poles 1.08 1.08	s Trip Circuit Description CK		Circuit Description	Trip Poles 1 0.50 1.00	Poles Trip Circuit Description CKT 1 20 FIRE ALARM CONTROL PANEL 2	
3	PANEL TSA	40 3 3.90 1.08 2	20 SSRCU-2 4	3	FIRE ALARM ANNUNCIATOR	20 1 0.50 1.00 0.00 20 1 0.25 0.00 0.50	1 20 Find Alarity Control FARE 2 1 20 Spare 4 1 20 CENERATOR LACKET HEATER 6	
5 7		1.94 0.36 1 20 2 1.50 0.72 1	20Receptacle OFFICE 128620Receptacle HOLD ROOM 1238	7	Spare	20 1 0.00 0.00 0.00 20 1 0.00 0.00 0.00	1 20 GENERATOR JACKET HEATER 0 1 20 Spare 8 1 20 Spare 10	
9 11	ATC PANEL	20 2 1.50 0.72 1 20 1 0.50 0.18 1	20 Receptacle HOLD ROOM 123 10 20 Receptacle TICKET COUNTERS 112 12	$\begin{array}{c} 9 \\ 11 \\ 2 \\ 12 \\ 12 \\ 12 \\ 12 \\ 12 \\ 1$	Spare Spare	20 1 0.00 0.00 20 1 0.00 0.00	1 20 Spare 10 1 20 Spare 12 4 20 Spare 14	
13	Receptacle Room 120, 121	20 1 0.72 0.72 1 20 1 0.72 0.72 1	20 Receptacle OFFICE 132 14 20 Receptacle OFFICE 132 14	13 15	Spare Spare	20 1 0.00 0.00 20 1 0.00 0.00	1 20 Spare 14 1 20 Spare 16	
17	Receptacle OFFICE 142	20 1 0.30 2.40 1 20 1 0.72 2.40 1	20 COUNTY IT TWIST LOCK RECEPTACLE 16 20 COUNTY IT TWIST LOCK RECEPTACLE 18	3 17	Spare	20 1 0.00 0.00 Total Load: 1.50 kVA 0.25 kVA 1.00 kVA	1 20 Spare 18	
19 21	NEW RENTAL IT RACK	20 1 0.36 0.36 1 20 1 0.36 0.36 1	20AVIS/BUDGET IT RACK2020TSA IT RACK22	2		Total Amps: 13 A 2 A 9 A		
23 25	COUNTY IT RACK SPARE IT RACK	20 1 0.36 0.36 1 20 1 0.36 0.36 1	20SOUTHERN IT RACK2220COUNTY IT RACK26	↓ }				_
27	NEW AIRLINE IT RACK	20 1 0.36 0.36 1 20 1 0.00 0.00 1	20 NEW AIRLINE IT RACK 26 20 Spare 27	3	Panel: L1 ALT E	BID 6	ALC Dating: 65 KAIC	
31	Spare	20 1 0.00 0.00 1 20 1 0.00 0.00 1	20 Spare 30 20 Spare 32	2	Supply From: EXISTING DP S	ECTION I Phases: 3	Mains Type: MCB	
33 35	Spare Spare	20 1 0.00 0.00 1 20 1 0.00 0.00 1	20 Spare 34 20 Spare 36	<u>+</u>	Enclosure: Type 1	vvires: 4	MCB Rating: 150 A	
37 39	Spare Spare	20 1 0.00 0.00 1 20 1 0.00 0.00 1	20 Spare 38 20 Spare 40	Notes:				
41	Spare	20 1 0.00 0.00 1 Total Load: 10.46 kVA 11.4 kVA 6.82 kVA 1	20 Spare 42	2				
		Total Amps: 92 A 100 A 57 A						
	Panel: TSA AL	T BID 6		CKT	Circuit Description	ITIP Poles 1.99	PolesI ripCircuit DescriptionCKT120EVVB-012	
	Location: Supply From: LLEQ	Volts: 120/208 Wye Phases: 3	A.I.C. Rating: 65 kAIC Mains Type: MCB	3	EVVB-02	20 3 2.00 4.01 2.00 2.00 2.50	1 20 EVVB-03 4 0 1 20 EVVB-05 6	
	Mounting: Recessed Enclosure: Type 1	Wires: 4	Mains Rating: 100 A MCB Rating: 40 A	7	EVVB-04	20 3 3.00 1.51 1.51	1 20 EVVB-07 8 1 20 FVVB-09 10	
Notes:							9 1 20 EVVB-11 12 1 20 EVVB-10 13	
					EVVB-06	20 1 1.51 4.01 1 1.50 2.00	I ZU EVVB-13 14 16 16	
		A B C A B C			EVVB-08	20 3 1.50 2.00 7 7 7 7 50 7 2.00	0 3 20 EVVB-14 18 20	-
CKT	Circuit Description RECEPTACLES - HOLD ROOM	Trip Poles Poles Poles 20 1 0.36 0.18 1	TripCircuit DescriptionCKT20DURESS ALARM RECEIVER2	$\left\{\begin{array}{c}21\\23\end{array}\right.$	PASSENGER BOARDING BRIDGE - ALTERNATE	80 3 17.72 3.50	1 20 EVVB-15 22 9 1 20 FVVB-12 24	
3 5	AIT WTMD	20 1 0.18 0.18 1 20 1 1.00 0.18 1	20CO-LOCATED ETD420DURESS ALARM REPEATER6		BID 1	17.72 1.99	1 20 EVVB-10 26 1 20 20 20 20	
7 9	QUE CONV. AND CONVENIENCE TDC/ETD	20 1 0.18 0.18 1 20 1 0.18 0.18 1	20 WTMD 8 20 TDC/ETD 10	29	Spare	20 1 0.00 0.00 20 1 0.00 0.00	1 20 Spare 28 0 1 20 Spare 30	
11 13	AT XRAY	20 1 0.20 0.20 1 20 2.50 0.20 1	20 AIT 12 20 CO-LOCATED ETD 14	31	Spare Spare	20 1 0.00 0.00 0.00 20 1 0.00 0.00 0.00	1 20 Spare 32 1 20 Spare 34	
15 17	STSO	30 2 2.50 0.18 1 20 1 0.18 0.18 1	20 STSO 16 20 ETD/BLS/AVS 18	35	Spare	20 1 0.00 0.00 20 1 0.00 0.00	0 1 20 Spare 36	
19 21	ETD/BLS/AVS Spare	20 1 0.18 0.00 1 20 1 0.00 1 1	20 Spare 20 20 Spare 20	39	Spare	20 1 0.00 0.00 20 1 0.00 0.00	1 20 Spare 30 1 20 Spare 40	
23 25	Spare Spare	20 1 0.00 0.00 1 20 1 0.00 0.00 1	20 Spare 24 20 Spare 24	41	Spare	20 1 0.00 Total Load: 32.8 kVA 30.81 kVA 28.28 kVA	1 20 Spare 42	-
27	Spare Spare	20 1 0.00 0.00 1 20 1 0.00 0.00 1	20 Spare 28 20 Spare 20			I OTAI AMPS: 120 A 113 A 102 A		
23	υραισ	Total Load: 4.03 kVA 3.90 kVA 1.94 kVA Total Ampo: 26 A 25 A 40.1	<u> 20 </u> Spare 30	_				
		iotai Amps: 36 A 35 A 16 A						

	Panel: HEEQ Location: ELECTRICAL 130 Supply From: ATS EQ Mounting: Surface	Volts: 480/277 Wye Phases: 3 Wires: 4	A.I.C. Rating: 65 kAIC Mains Type: MCB Mains Rating: 125 A			Panel: HLS Location: ELECTRICAL 130 Supply From: ATS LS Mounting: Surface			Volts: 48 Phases: 3 Wires: 4	0/277 Wye			A.I.C. Rating: Mains Type: Mains Rating:	65 kAIC MCB 100 A	
otes:	Enclosure: Type 1		MCB Rating: 125 A		Notes:	Enclosure: Type 1							MCB Rating:	30 A	
CKT 1 3 5	Circuit Description Trip TRANSFORMER EEQ 60	A B C A B C Poles Poles 10.46 3.06 Poles 3 11.40 3.06 3.06 Image: Contract of the second sec	Trip Circuit Description 20 RTU-1	CKT 2 4 6	CKT 1 3 5	Circuit Description	Trip 1 20	Poles 3	A B C 1.50 0.25 1.00 1.00	A B C 0.55	2 Pc 47	bles Tri 1 20 1 20 1 20 1 20	ip Ci D Ci	rcuit Description LIGHTING LIGHTING LIGHTING	CKT 2 4 6
7 9 11 13 15	RTU-2 20	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	20 RTU-3	8 10 12 14 16	7 9 11 13 15	LIGHTING LIGHTING LIGHTING Spare Spare	20 20 20 20 20 20	1 1 1 1 1	2.70 3.71 0.17 0.00 0.00 0.00	0.38 3.71 0.00 0.00	03	1 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20	0 0 0 0 0	LIGHTING LIGHTING EXIT SIGNS Spare Spare	8 10 12 14 16
17 19 21 23	RTU-6 20	0.84 3.88 2.10 1.33 3 2.10 2.10 1.33 3 2.10 1.33 1.33 3 2.10 1.33 1.33	20 RTU-7	18 20 22 24	17 19 21 23	Spare	20 20 20 20	1 1 1 1	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	00	1 20 1 20 1 20 1 20 1 20 1 20 1 20	D D D D D	Spare Spare Spare Spare	18 20 22 24
25 27 29	Spare 20 Tota	3 0.00 0.00 0.00 3 3 0.00 0.00 0.00 3 al Load: 26.05 kVA 26.99 kVA 22.41 kVA al Amps: 96 A 99 A 81 A	20 Spare	26 28 30	25 27 29	Spare Spare Spare	20 20 20 Total Total	1 1 Load:	0.00 0.00 0.00 0.10 0.00 0.00 5.11 kVA 8.37 kV 20 A 32 A	0.00 0.00 0.0 A 1.68 kVA 6 A	00	1 20 1 20 1 20	5 5 5	Spare Spare Spare	26 28 30
	Panel: LEEQ					Panel: LLS				0/000 W/					
	Location: Supply From: TEQ Mounting: Recessed Enclosure: Type 1	Volts: 120/208 Wye Phases: 3 Wires: 4	A.I.C. Rating: 65 kAIC Mains Type: MCB Mains Rating: 100 A MCB Rating: 100 A			Location: CORRIDOR 138 Supply From: LS Mounting: Recessed Enclosure: Type 1			Volts: 12 Phases: 3 Wires: 4	0/208 Wye			A.I.C. Rating: Mains Type: Mains Rating: MCB Rating:	35 MCB 100 A 30 A	
otes:					Notes:										
скт	Circuit Description Trip	A B C A B C Poles	Trip Circuit Description	скт	СКТ	Circuit Description	Trip I	Poles	A B C	A B C	C Po	oles Tri	ip Ci	ircuit Description	СКТ
1	PANEL TSA 40	4.28 1.08 2 3 3.90 1.08	20 SSRCU-2	2	1	FIRE SUPPRESSION SYSTEM FIRE ALARM ANNUNCIATOR	20 20	1	0.50 1	.00 0.00		1 20 1 20	D FIRE AL	ARM CONTROL PANEL	2
5		1.94 0.36 1	20 Receptacle OFFICE 128	6	5	GENERATOR BATTERY CHARGER	20	1	0.50	0.0	50	1 20 1 20	D GENERA	ATOR JACKET HEATER	6
7 9	SSRCU-1 20	2 1.50 0.72 1 1.50 0.72 1	20 Receptacle HOLD ROOM 123 20 Receptacle HOLD ROOM 123	8	9	Spare	20	1	0.00	0.00		1 20	5 D	Spare	10
11	ATC PANEL 20	1 0.50 0.18 1	20 Receptacle TICKET COUNTERS 112	12	11	Spare Spare	20 20	1	0.00	0.0	00	1 20 1 20	D D	Spare Spare	12
13	Receptacle Room 120, 121 20 Receptacle TICKET COUNTERS 112 20	1 0.72 1 1 0.26 2.40 1	20 Receptacle OFFICE 132	14	15	Spare	20	1	0.00	0.00		1 20	D	Spare	16
17 19 21 23 25 27	Receptacle OFFICE 14220NEW RENTAL IT RACK20ALLEGIANT IT RACK20COUNTY IT RACK20SPARE IT RACK20	1 0.00 0.00 2.40 1 1 0.36 0.36 1 1 0.36 0.36 1 1 0.36 0.36 1 1 0.36 0.36 1 1 0.36 0.36 1 1 0.36 0.36 1 1 0.36 0.36 1	20 COUNTY IT TWIST LOCK RECEPTACLE 20 AVIS/BUDGET IT RACK 20 TSA IT RACK 20 SOUTHERN IT RACK 20 COUNTY IT RACK 20 SOUTHERN IT RACK 20 COUNTY IT RACK	18 20 22 24 26		Panel· I 1 ΔI T F	Total Total Total	Load:	1.50 kVA 0.25 kV 13 A 2 A	A 1.00 kVA 9 A		1 20	J	Spare	18
29	Spare 20	1 0.30 0.30 0.30 1 1 0.00 0.00 1	20 NEW AIRLINE IT RACK 20 Spare	30		Location:			Volts:	480/277 Wye			A.I.C. Ratir	ng: 65 kAIC	
31	Spare 20	1 0.00 0.00 1	20 Spare	32		Supply From: EXISTING DP S	ECTION	11	Phases:	3			Mains Typ	be: MCB	
33	Spare 20	1 0.00 0.00 1 1 0.00 0.00 1	20 Spare	34		Mounting: Recessed Enclosure: Type 1			Wires:	4			Mains Ratir MCB Ratir	ig: 225 A ig: 150 A	
37	Spare 20	1 0.00 0.00 1 1 0.00 0.00 1	20 Spare 20 Spare	38	Nete										
39 41	Spare20Spare20TotaTota	1 0.00 0.00 1 1 0.00 0.00 1 al Load: 10.46 kVA 11.4 kVA 6.82 kVA al Amps: 92 A 100 A 57 A	20 Spare 20 Spare	40 42	Note	S:	Trin	Dela	A B C	A B	с	Palas	Tria		
	Panel: TSA ALT BID	6			1			FUIE	2.00	1.99		1	20	EVVB-01	
		Volts: 120/208 Wye	A.I.C. Rating: 65 kAIC		3	EVVB-02	20	3	2.00	4.01	0.50	1	20	EVVB-03	,
	Mounting: Recessed	Wires: 4	Mains Rating: 100 A		5				3.00	1.51	2.50	1	20	EVVB-05	
	Enclosure: Type 1		MCB Rating: 40 A		9	EVVB-04	20	3	3.00	1.51		1	20	EVVB-09	1
tes:					11	E\0/B-06	20	1	3.00	4.01	1.99	1	20	EVVB-11	
					15		20	· ·	1.50	2.00			20		
				Z	17	EVVB-08	20	3	1.50		2.00	3	20	EVVB-14	
кт	Circuit Description Trip	A B C A B C Poles	Trip Circuit Description (скт				\square	- 17 72	2.00		1	20		2
1	RECEPTACLES - HOLD ROOM 20	1 0.36 0.18 1	20 DURESS ALARM RECEIVER	2	$\left\{ \begin{array}{c} 21\\ 23 \end{array} \right.$	PASSENGER BOARDING BRIDGE - ALTERNATE	80	3	17.72	3.00	1.99	1	20	EVVB-12	
3 5	AIT 20 WTMD 20	1 0.18 0.18 1 1 1.00 0.18 1	20 CO-LOCATED ETD 20 DURESS ALARM REPEATER	4 (25				17.72	3 1.99		1	20	EVVB-10	2
7	QUE CONV. AND CONVENIENCE20	1 0.18 0.18 1	20 WTMD	8		Spare	20		0.00	0.00	0.00	1	20	Spare	2
9 11	TDC/ETD 20 AT XRAY 20	1 0.18 0.18 1 1 0.20 0.20 1	20 TDC/ETD 20 ΔΙΤ	10	29	Spare	20	1	0.00	0.00	0.00	1	20	Spare	
13		2 2.50 0.20 0.20 1	20 CO-LOCATED ETD	14	33	Spare	20	1	0.00	0.00		1	20	Spare	3
15		2.50 0.18 1 1 0.18 0.49 1	20 STSO	16	35	Spare	20	1	0.00	0.00	0.00	1	20	Spare	3
19	ETD/BLS/AVS 20	1 0.18 0.00 1	20 Spare	20	37	Spare Spare	20	1	0.00	0.00		1	20	Spare	
21	Spare 20	1 0.00 0.00 1 1 0.00 0.00 1	20 Spare	22 24	41	Spare	20	1	0.00			1	20	Spare	
25	Spare20Spare20	1 0.00 0.00 1	20 Spare	26			Tot Tot	tal Load	d: 32.8 kVA 30.8 s: 120 A 11	1 kVA 28.28 3 A 102	kVA 🗌 A				
27	Spare 20	1 0.00 0.00 1	20 Spare	28						102					
3	Spare 20	I Load: 4.03 kVA 3.90 kVA 1.94 kVA	20 Spare	30											
	Total	Amps: 36 A 35 A 16 A													





DESCRIPTION ADDENDUM 4

EN

TERMINAL BUILDING EXPANSION

ELECTRICAL SCHEDULES ALT BID 6

SCALE:

AS INDICATED

PROJECT TITLE:

DATE: MARCH 2019 FAA AIP No.: 3-24-0019-059-2018 Bid No.: PUR-1410 MAA Grant No.: MAA-GR-19-009

SHEET No.: EL09.300 116 OF 117

PUR-1410 BID DOCUMENT SCHEDULE

Document	Due Date	Required By
Bid Bond	With Bid	All Bidders
Provisions for Other Agencies	With Bid	All Bidders
Signature to Bids	With Bid	All Bidders
Form of Proposal	With Bid	All Bidders
Affidavit of Non-Collusion and	With Bid	All Bidders
Bribery Convictions		
Equal Employment Opportunity	With Bid	All Bidders
Certification		
Certification of Non-Segregated	With Bid	All Bidders
Facilities		
Disadvantaged Business	With Bid	All Bidders
Enterprise (DBE) Form DEBC-1		
Buy American Certificate	With Bid	All Bidders
Certificate of Buy American	With Bid	All Bidders
Compliance for Manufactured		
Products		
Certificate of Buy American	With Bid	All Bidders
Compliance for Total Facility		
Certification of Offerer/Bidder	With Bid	All Bidders
Regarding Tax Delinquency and		
Felony Convictions		
Schedule of Values	48 hours after Bid Opening	Low Bidder
List of subcontractors	48 hours after Bid Opening	Low Bidder
Disadvantaged Business	Within 5 days after the Opening	Low Bidder
Enterprise (DBE) Plan as	of Bids	
described on Form DEBC-1		
Performance/Labor and Material	Within 15 days of Notice of	Successful Bidder only
Bonds	Award	
Certificates of Insurance	Prior to Notice to Proceed	Successful Bidder only

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ТҮРЕ	MATERIAL	SECTION	LOCATION	MANUF.	STYLE	COLOR	NOTES
	FLOORS						
F1	Porcelain Tile	09 66 23	Waiting, Lobby, Baggage Claim, Rental, Concession, Ticket Counter, Security Screening, Hold Room Ramp	Atlas Concorde	Marvel Gems, Matt, 18 x 36	Color A (F1A)(Accent) Terrazzo White Matt, Color B (F1B)(Field): Terrazzo Gray Matt	2/22/19
F2	Porcelain Tile	09 31 00	Men's Public Restrooms, Women's Public Restrooms, Café	Daltile	Formula, 12" x 24" Unpolished	FM95 Intersection Anthracite	Grout: Mapei # 47 Charcoal
F3	Carpet Tile A	09 68 80	Hold Rooms	J & J Invision	Index 7008, 24" x 24", 1/4 Turn Install	1834 Version	
F4	Quartz Tile	09 65 00		UpoFloor	Mosaic Collection, 24" x 24"	619304	
F5	Carpet Tile B	09 65 00	Reception, Offices, Conference Room	J & J Invision	With a Twist 7080, 24" x 24", Monolithic Install	2469 Twist of Words	
F6	Walk Off Mat	09 68 80	Vestibules	J & J Invision	Catwalk II 7268, 24" x 24", 1/4 Turn Install	1428 Stike a Pose	
	RASE						
B1	NotUsed						
B2	Porcelain Tile Base	09 31 00		Daltile	Formula Unpolished, 6" high x 12"	FM95 Intersection Anthracite	Grout: Mapei # 47 Charcoal



ТҮРЕ	MATERIAL	SECTION	LOCATION	MANUF.	STYLE	COLOR	NOTES
В3	Rubber Base	09 65 00		Johnsonite	Millwork Reveal, 4.25" high	63 Burnt Umber	
	WALLS						
W1	Paint	09 90 00		Sherwin Williams		SW7070 Site White	
W2	Porcelain Walltile	09 31 00	Men's Public Restrooms, Women's Public Restrooms	Daltile	Marble Attache, 12" x 24", Satin	MA86 Turkish Skyline	W2 to 5'-6" A.F.F. Grout: Mapei # 09 Gray
W3	Rigid Sheet Vinyl	10 26 00	Lobby, Baggage Claim, Ticket Counter, Hold Room, Security Screening, Custodian	InPro Corp.	Elements, Velvet Texture, 4' x 8'	5E032 Trestlenut	4' High w/ Trim Piece
W4	Flexible Wall Protection	10 26 00	Men's Public Restrooms, Women's Public Restrooms	InPro Corp.	Ricochet Strata, 48" wide	RC-STR-R608 Smolder	
W5	Flexible Wall Protection	10 26 00	Café	InPro Corp.	Ricochet Clarity, 48" wide	Field: RC-CLA- R814 Mist Accent : RC-CLA- R816 Lake Michigan	
W6	Ceramic Walltile	09 31 00	Café	Daltile	Elevare, 6" x 18"	Element EL43	Grout: Mapei # 107 Iron
W7	Clear Write and Erase Paint	09 90 00	Café	Wolf Gordon	Wink	SW6991 Black Magic	
W8	Rigid Sheet Vinyl	10 26 00	Offices 118-121	InPro Corp.		0256 Castle	2/22/2019



TYPE	MATERIAL	SECTION	LOCATION	MANUF.	STYLE	COLOR	NOTES
	CEILINGS						
C1	Acoustical Ceiling Tile - Type 1	09 51 10	General	Armstrong	Ultima # 1941, 2' x 2', 15/16" Beveled Tegular	White	
C2	Acoustical Ceiling Tile - Type 2	09 51 10	Restrooms	Armstrong	Pebble # 2988, Perforated 2' x 2', 15/16" Square Lay-In	White	
C3	Exposed						
C4	Gyp Bd - Painted	09 90 00		Sherwin Williams		SW7646 First Star	
C5	Clg Framework - Painted	09 90 00		Sherwin Williams		SW7071 Gray Screen	
C6	Metal Decking - Painted	09 51 00		Epic Metals (Metal) Sherwin Williams (Paint)	Toris A, 6' wide (Metal)	SW7071 Gray Screen (Paint)	
C7	Interior Existing Decking - Painted	09 90 00		Sherwin Williams		SW7071 Gray Screen	
C8	Acoustical Clg Tile - Type 3	09 51 00	Café	Armstrong	Optima Health Zone #3214PB, 2' x 2', 15/16" Square Tegular	White	
	MISCELLANEOUS						
M1	Wood Doors - Stained	08 21 00		TBD	TBD	TBD	
M2	Door Frames - Painted	09 90 00		Sherwin Williams		SW7076 Cyberspace	



TYPE	MATERIAL	SECTION	LOCATION	MANUF.	STYLE	COLOR	NOTES
М3	Toilet Partitions	10 17 00	Men's Public Restrooms, Women's Pubic Restrooms	Bobrick	Sierra Series	Mens: SC04 Forest Green Womens: SC02 Desert Beige	Ceiling Hung
M4	Millwork	06 20 00	Men's Public Restrooms, Women's Public Restrooms	Bradley	Evero Quartz Basin, Geo Series	Mykonos	
			Café Bar	Dupont Corian Quartz (Countertop) Formica Laminate (Cabinetry) Dupont Corian Solid Surface (Top of foot ledge) Porcelain Tile (Front of foot ledge)	Uniform Wood, 8" x 48" (Front of foot ledge)	Ctr - Cloud White Cab - 6437-58 Chalked Knotty Ash Top of foot ledge - Deep Titanium Front of foot ledge - UW14 Medium Grey	
			Café Cabinetry - wall behind bar	Formica		912-58 Storm	
			141A Office, 142 Office, 132 TSA	Formica		Ctrtop - 6317-34 Weathered Cement Cab - 8841-WR White Ash	



TYPE	MATERIAL	SECTION	LOCATION	MANUF.	STYLE	COLOR	NOTES
			105 Rental, Concessions, Ticket Counters	Dupont Corian Quartz (Countertop) Formica Laminate (Cabinetry)		Ctrtop - Concrete Carrarra Cab - 8902-NG White Painted Wood	
			Charging Station Countertops	Dupont Corian Quartz		Cloud White	2/12/2019
M5	Sills - Solid Surface		All Areas	Dupont Corian Quartz		Cloud White	
M6	Wood Trim - Painted		Café - around clear Write & Erase Paint	Sherwin Williams		SW6991 Black Magic	
M7	Wood Trim - Stained		Restrooms	Sherwin Williams		TBD	
M8	Carpet - Broadloom		Temporary Waiting Room during phasing	J & J Invision	Passages 3036, 12' Width	2046 Channel	2/25/2019