

**ADDENDUM NO. 6.**

**Bidding and Contract Documents**

For

Deicer Management System  
T. F. Green State Airport  
Warwick, Rhode Island

**RHODE ISLAND AIRPORT CORPORATION**

February 15, 2013

PREPARED BY:  
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**NOTICE TO PROSPECTIVE BIDDERS**

**ADDENDUM NO. 6**

Prospective Bidders and all concerned are hereby notified of the following changes in the Contract Documents for DEICER MANAGEMENT SYSTEM at the T. F. GREEN STATE AIRPORT. These changes shall be incorporated in and shall become an integral part of the contract documents. The number (No. 6) and date (2/15/13) of this addendum must be entered into the space provided on Page P-4 of the Proposal Form. These changes will be incorporated into the Conformed Contract Documents to be issued to the successful bidder.

## BIDDER'S QUESTIONS

- Q1. *Ext. window type 1 looks like fixed aluminum per detail on Dwg. A-307, if so is 2 x 4 1/2 storefront ok in standard color? Interior windows type 2 & 3 gave size on A-901 but no glass type, what kind of glass do you want? On types 2 & 3 do you want storefront to be the same as type 1 or are you using hollow metal.*
- A1. Hollow metal frames at all window openings, interior and exterior. Hollow metal frames for exterior and interior doors and sidelights. The paint color of the hollow metal frame will be selected after the building metal panel color is selected by the owner.
- Exterior glazing is 1" insulated tinted glass and interior glazing is 1/4" clear tempered glass.
- Q2. *There are many Bid Items associated with individual valves, pieces of equipment and mechanical instruments. We respectfully request that these bid items be consolidate into larger groups or major mechanical systems to reduce the amount of bid items. This will assure less confusion during the bidding process.*
- A2. The 35 process valve bid items will be combined into one bid item, the 13 electronic and pneumatic valve bid items will be combined into one bid item, and the pipe specialties will be combined into one bid item. A new **Proposal Forms** are attached to this addendum.
- Q3. *With all the upfront costs associated with this Project we respectfully request a Mobilization Bid Item be added.*
- A3. Mobilization is considered incidental to the project bid items.
- Q4. *Bid Item No. 52 "Site Clearing and Earth Moving" is associated with Pay item No. 31.2000.1, which is for preparing Subgrades and drainage courses for slabs-on-grades, walks, pavements, lawns and exterior plants, while there is a Pay Item 31.1000 Site Clearing and Demolition, please clarify.*
- A4. Bid item No. 52 combines the work in specifications 31 1000 and 31 2000.
- Q5. *The following Pay items do not have Bid Items associated with or related to in order to get paid for the work: 31.2023 Earthwork for Structures; 06.1053/06.1643 Rough Carpentry; 07.8413 Firestopping; 07.9200 Joint Sealants; 08.3113 Access Doors; 09.2900 Gypsum Board; 10.1400 Signage; 10.5113 Metal Lockers; 01.5713 Temporary Erosion and Sediment Control. We request that you please identify what existing Bid Items this work is paid for or add Bid Items.*
- A5. Work in specification section 31 2023 is considered incidental to structure construction. Included in the building cost (bid item No.5 - Concrete Unit Masonry and Other non-listed Building Items) are: 06 1053/1643, 07 8413, 07 9200, and 09 2900. Include work in specification section No. 08 3113 with Doors (item No. 12). Include work in specification section No. 10 1400 with Fire Protection Specialties (item No. 22). Include work in specification section No. 10 5113 with Toilet and Bath Acc. (item No. 21). Work in specification section No. 01 5713 is considered incidental to the project as stated at the pre-bid meeting.

- Q6. *Drawings S-503 & D-312 differ as to how the proposed Terminal Monitoring Structure is to be built. S-503 shows the base mat underneath the existing 72" RCP. D-312 shows only half of the base mat to the invert of the 72" RCP. Please clarify the dimensions of the concrete base mat and walls for the Terminal Monitoring Structure.*
- A6. Structure dimensions are correct on the structural sheet S-503. Process drawing shows structural elements only for illustrative purposes.
- Q7. *Drawings C-324, C-325 & C-343 call out manholes to be installed for the communication lines that run parallel to the force mains but there is no detail provided for the dimensions of the manholes. Please provide a detail for the proposed communication manholes.*
- A7. Communication manholes are Type 2 manholes as shown on E-501.
- Q8. *Drawing E-136 calls for the proposed conduit at Hangar 2 to be installed along the ceiling of the Hangar. Please provide a detail as to how the Engineer would proposed the electrical conduit be installed to the ceiling at Hangar 2.*
- A8. Conduit below the ceiling shall be supported from the truss system. Conduit supports shall be in accordance with the requirements of specification section 26 0533 and Rhode Island building code.
- Q9. *Drawing C-302, Drawing Keynote #2 calls for detail B7/C-521 for the pavement restoration associated with the Cargo Storm Sewer work. However, Drawing C-232 delineates the work in this area to fall under the bituminous pavement restoration for asphalt. Please clarify that the work in this area is being installed within asphalt and not concrete pavement. If concrete, please provide a sketch for the types of joints associated for the restoration.*
- A9. Pavement repair on Drawing C-302 shall be bituminous per C-232 and therefore detail shall be by C1/C-521.
- Q10. *Drawing D-316 calls out 24" HDPE pipe between the Cargo Diversion Structure and Cargo Pump Station. However, on the same drawing within the pump station, the pipe is called out as RCP. Please clarify whether the proposed piping between the diversion structure and pump station at the Cargo area is RCP or HDPE.*
- A10. Drawing D-316 shows 216-GL-27" and 217-GL-30" as HDPE. These pipes should be RCP. They are shown correctly on the civil drawings.
- Q11. *Drawing C-133 calls out the piping coming in and out of the Cargo Monitoring Structure as RCP. However, drawing D-115 calls out HDPE pipe. Please clarify whether the piping in and out of the structure is RCP or HDPE.*
- A11. On Drawing D-115, 216-GL-27", 217-GL-30" and 218-GL-36" are shown as HDPE. These pipes are RCP and shown correctly in the civil drawings.
- Q12. *Drawing D-111 calls out 36" HDPE between the Terminal Diversion Structure and Pump*

*Station. However, the piping on D-311 is called out as RCP. Please clarify whether the piping between the Terminal Diversion Structure and Pump Station is RCP or HDPE.*

- A12. Drawing D-111 calls out pipe 130-GL-36" as RCP. Drawing D-311 correctly calls out the pipe as HDPE. Pipe is HDPE encased in concrete.
- Q13. *Please confirm the actual closing date for the tender, we actually have two dates, one of Feb 26 as indicated on your email and one of Feb 19<sup>th</sup>.*
- A13. Bid due date is February 26 per Addendum #3.
- Q14. *Please confirm the snowmelters are to be brand new and 2013 models. This is important as EPA rules are changing and tier 4i engines may be required.*
- A14. Snowmelters are to be brand new 2013 models and must provide equipment in compliance with U.S. Regulations in effect at the time of the sale.
- Q15. [Snowmelter] *Please confirm all steel components in and attached to the melting tank are to be provided in stainless steel such as the circulating pumps, piping; screens clean out hatches.*
- A15. All components in the tank shall be stainless steel. Non-wetted, attached components may be per the manufacturers design.
- Q16. [Snowmelter] *Please confirm the minimum steel thickness for the melting tank should be 3/16" and the material 304 stainless.*
- A16. The material of the melt tank and hopper shall be stainless steel - either 340 or 316 are acceptable. Melt tank steel thickness shall be per manufacturer's design.
- Q17. [Snowmelter] *Please advise if the options listed are all to be quoted with the base bid.*
- A17. All options are to be quoted as the base bid.
- Q18. [Snowmelter] *Please advise if there are any special US content rules to be followed.*
- A18. Buy American rules are to be implemented per the Bid Forms Certification (Proposal Forms, page P-46, Buy American Certification) and Section 00 0950 – Federal Contract Conditions, page 1 and 2 of 26.
- Q19. [Snowmelter] *Please advise the cut-off date, after which it is too late to ask for further clarifications on the specifications.*
- A19. Per Addendum No. 5, the deadline for questions is February 15 at 4 P.M.
- Q20. [snowmelter] *Please confirm the engines will be 2013 model year and EPA tier 4i approved. Engines to be rated for emissions as off highway use not as standby generator use.*
- A20. Please refer to answer A14.

- Q21. *When looking at the ceiling finishes on Drawing A-106 (Reflected Ceiling Plan – Ground Floor) it is shown that ceilings in rooms 103, 104 & 105 have a gypsum wallboard finish. However, when compared to the Finish Schedule on Drawing A-600. The ceiling finish for rooms 103, 104 and 105 have an acoustical ceiling tile finish. Please advise which ceiling finish will be required for rooms 103, 104 and 105.*
- A21. Drawing A-106 is correct.
- Q22. *In specification section 23-3713 paragraph 1.1 B.1, “Division 08 – Louvers and Vents” is referenced. Currently, Division 08 does not include a “Louvers and Vents” section. Will a “Louvers and Vents” specification be provided?*
- A22. Refer to specification 23 3300 “Air Duct Accessories” for louvers.
- Q23. *Phase 2 Construction Limits, Bid Drawing G-107, states that Phase 2B is to be completed concurrent with Phase 3D however Phase 3 Construction Limits, Bid Drawing G-108, states that Phase 3D is to be completed prior to Phase 2B. Please review and clarify the construction sequence.*
- A23. On Drawing G-108 for Phase 3D third bullet under Major Work Items, delete "Phase 3D to be completed prior to Phase 2B (Both shall utilize trenchless construction)." For Phase 3D second bullet under Major Work Items, delete "Pavement Crossing shall be accomplished using trenchless construction" and replace with "Pavement Crossing shall be accomplished using open cut of pavement."
- Q24. *In regards to Room 103, 104 & 105; on Drawing A-106 on the reflected ceiling plan, it notes the ceilings as GYP. However on the finish schedule on A-600 it call the ceiling out as ACT. Please advise which is correct.*
- A24. Please see answer A22.
- Q25. *On A-308, Wall Type 4 shows a metal stud of 3-5/8” with 5/8” of board on it, but the width of the wall is shown at 6-5/8”, can you confirm the width of the metal studs to use.*
- A25. 6” Metal Studs should be used.
- Q26. *On A-401 Wall Type 4 runs between rooms 103, 104 and 105, however 104 and 105 are shown without any tile on the walls, Wall Type 4 only shows a tile backer and no GWB. Please review and advise if this correct.*
- A26. In these rooms, replace the tile backer board with 5/8” gypsum board to match adjacent walls.
- Q27. *On Drawing A-401, in room 109, there appears to be a GWB and Stud Chase Wall, but no wall type markings, can you provide a detail for this wall?*
- A27. There is a chase wall in this location. The wall type should be wall type 3B.

- Q28. *What is the wall type for the wall separating Room 107 and 108?*
- A28. Wall Type should be 3A.
- Q29. *Which Bid Item does the underground potable water (4-inch HDPE) and fire protection(6-inch HDPE) fall under? (Item 69 – Water Utility Distribution Piping or 75 – 4” HDPE)*
- A29. Potable water and fire protection are under Bid Item No. 69 - Water Utility.
- Q30. *Which bid item is earthwork related to underground piping, structures, tanks, ductbanks, building, etc. fall under? (Item 52 – earthwork or related pipe items)*
- A30. Earthwork for utilities are included in the installation cost for the utility/pipe.
- Q31. *There appears is no pay item for the following piping work:*
- a. *6-inch PVC roof drain piping*
  - b. *2-inch PVC force main related to the foundation drain PS*
  - c. *Which items does all of the piping, fittings and valves fall under for each of the various pump stations and valve vault?*
- A31. a. Roof drain is included in the Bid Item No. 5 - Concrete Unit Masonry and Other Non-listed Building Items.  
b. The 35’ of 2” PVC pipe (‘S’ on Drawing C-115) should be included in Item No. 71 – Storm Utility Piping.  
c. Ductile Iron Pipe in the pump station through the flow monitor vaults is incidental to the force mains, these are line items 74, 75, 76, and 77. Valves are individually listed bid items. Other items are in instrumentation bid items.
- Q32. *The piping inside of the pump station (Effluent PS and Discharge PS; D-161) is called out as carbon steel, but is also called out as DI as it exits each structure to the underground piping. Please confirm which material is required or accepted.*
- A32. Piping in pump stations shall be ductile iron (4”) and either ductile iron or a coated steel pipe suitable for submerged service (3”). The 3” size is not a standard size for ductile iron and not all manufacturers make this dimension. Transition to buried HDPE is shown on Drawing D-161 – at the Discharge Flow Vault Flange downstream of the Discharge Pump Station and 5-feet from the wall of the Effluent Pump Station.
- Q33. *Since the geotech. report mentions there is evidence of fill on this project and that fill areas need to be excavated and replaced with suitable material, how do we quantify the amount of unsuitable material is present on the project? Shouldn’t there be bid items to handle these unknown quantities?*
- A33. A bid line item is added to account for excavation of unsuitable material.
- Q34. *Under what item does the overall site excavation for the tanks, WWTP and structures fall under?*
- A34. Excavation for structures are incidental to the structure construction.

- Q35. *Typically the gas utility will install the new gas service up to the building meter set and will not provide a price to contractors prior to bid. Can this work be included under the Gas Allowance Item?*
- A35. Bid Item No. 35 is the gas allowance item for the installation of the utility service that has been coordinated with the gas utility (NationlGrid).
- Q36. *Specification section 40 0525 specifies slide gates for the diversion structures. Drawing D-533 details sluice gates. Does the specification govern?*
- A36. The D-533 sluice gates are slide gates covered under Specification 40 0525.
- Q37. *It is difficult to allocate costs of work to items listed in the bid proposal, would you add a Mobilization Item to cover the General Conditions of the contract and also pay items for the Cargo Pump Station and the Terminal Pump Station.*
- A37. Please see answer A3.
- Q38. *The Sanitary Pump Station, Bid Drawing D-162, Drawing Keynotes item 1. Reads for continuation see Drawing C-117. Please be advised C-117 is not part of the bid documents.*
- A38. Keynote should read 'See C-351'.
- Q39. *Bid Section 23 0900, Instrumentation and Control for HVAC does not have a pay item identified in the bid schedule. Please advise where this work is to be carried in the bid proposal.*
- A39. The instrumentation and Control for HVAC is general for the HVAC equipment. The pay item required for individual HVAC units covers this work.
- Q40. *Please identify the bid pay item for Control, Signal and Communication Wiring.*
- A40. The control and signal wiring is under Bid Item No. 44 – Electrical Distribution Systems.
- Q41. Specification Section 43 4117, Tanks, Page 1, Paragraph 1.1.A.1 confirms the requirement for the prestressed concrete tanks to be designed and constructed in accordance with AWWA D-110 Type III. As such it appears that there are conflicts within the body of the specification for which we request clarification.
- Page 4, Paragraph 1.6.A.1: This section specifies manufacturer qualifications listing the requirement for 10 years experience in construction of "Type II" prestressed concrete tanks. Please confirm that this qualification applies to Type III tanks as specified.
  - Page 4, Paragraph 1.6.A.2: Similarly this paragraph identifies the experience requirements for the tank designer as a full-time professional engineer with five years experience in "Type II tanks". Please confirm that the qualification for design experience applies for Type III tanks.
  - Page 4, Paragraph 1.6.B: This section specifies project team experience for the successful tank contractor and references a minimum of five (5) "Type II" tanks. As above, please confirm that this experience applies for Type III tanks.

- Page 5, Paragraph 1.6.E: This section specifies the requirement to submit certification Form 12 3000-A included at the end of this section. This form appears to be missing. Please confirm the requirement for the certification and if required please provide the form.
  - Page 10, Paragraph 2.6.A: This section describes the tank fabrication and specifies that the tank floor “shall be of concrete or shotcrete construction with reinforcing steel.” As shotcrete floor construction is not included with AWWA D-110, we recommend that the floor be specified as concrete floor construction only. Please confirm the requirement for a concrete floor.
  - Page 10, Paragraph 2.6.A: Similarly this section also specifies that the wire-wound prestressed composite wall “shall consist of a shotcrete core wall encasing a steel shell diaphragm, etc.” A shotcrete core wall is specific to Type II construction. Please confirm that the wire-wound prestressed composite wall “shall consist of a precast concrete core wall including a steel diaphragm...”, etc.
  - Page 10, Paragraph 2.6.A: Similarly this section specifies that the tank roof shall be a circumferentially prestressed free-span dome “of concrete or shotcrete construction”. As above, shotcrete dome construction is not acceptable according to AWWA D-110 and is not recommended. We recommend that the dome be specified to be concrete construction, either precast concrete or cast-in-place concrete, in accordance with AWWA D-110.
- A41. The first three bullets were addressed in Addendum #2, Items # 2-4. Form 43 4117-A is attached to this addendum. Floor shall be concrete per AWWA D-110, Section 3.8. Wall core shall be concrete per the definition in AWWA D-110, Section 1.1.1. Roof structures may be shotcrete or concrete domes per AWWA D-110, Section 3.6.
- Q42. Specification Section 43 4117, Tanks, Page 2, Paragraph 1.3.A.8.a references AWWA C652 - Disinfection of Water Storage Facilities. Please confirm if the deicer storage tanks will require disinfection prior to being placed in service.
- A42. The disinfection appears in the reference section but there is no requirement to disinfect the deicer storage tanks.
- Q43. Specification Section 43 4117, Tanks, Page 3, Paragraph 1.5.A.2 requires the bidders (General Contractors) to submit with their proposal a list of five (5) prestressed concrete tanks constructed within the last five (5) years including the names of the Owners, tank capacities and the Engineers and a preliminary section view drawing of the tank showing tank geometry, materials of construction, and high and low water levels. Please confirm that this requirement can be waived since the acceptable tank manufacturers for the project have been listed in Paragraph 2.2.A.
- A43. This requirement is considered satisfied for the listed manufacturers in 2.2.A.
- Q44. Specification Section 43 4117, Tanks, Page 6, Paragraph 2.4.B: This section specifies the structural design of the prestressed concrete tank to be in accordance with provisions of ACI 344R-W and AWWA D-110. We suggest that ACI 372R also be included, and that the reference to AWWA D-110 include the specific reference for Type III tanks.

- A44. The reference is made to AWWA D-110 and the tank is required to be Type III, therefore no specific reference will be made to type in the reference document section. ACI 372R is the American Concrete Institute's version of AWWA D-110 and is considered redundant to the requirements of this project.
- Q45. Specification Section 43 4117, Tanks, Page 8, Paragraph 2.4.F.9.a, indicates an overflow rate of 35,200 gpm. However, the provided plans, Drawing D-323, indicates an overflow rate of 5,200 gpm. Please confirm the overflow rate required for this project.
- A45. On Page 8, Part 2.4.A.9.a) the overflow rate shall be 5,200 gpm. Plan Drawing D-323 is correct.
- Q46. Specification Section 43 4117, Tanks, Page 10, Paragraph 2.7.B.2, states that the overflow pipe will be braced by Type 316 stainless steel. However, Drawing D-323 of the plans shows a concrete pipe encasement supporting the overflow pipe. Please confirm the overflow pipe can be supported with a concrete encasement for this project.
- A46. Pipe shall be supported by concrete encasement per detail A1/D-323.
- Q47. Specification Section 43 4117, Tanks, Page 11, Paragraph 2.7.E, calls for (2) two manways per tank located opposite each other. However, the provided plans, Drawing D-323, Detail D5, calls for (1) one manway. Please confirm the number of manways required for each tank for this project.
- A47. Delete note 1 in D5/D-323. Manways shall be installed at locations 'E' And 'P' as shown in A1/D-121.
- Q48. Specification Section 43 4117, Tanks, Page 11, Paragraph 2.7.G, calls for an interior ladder. The provided plans do not show an interior ladder. Please verify if an interior ladder is required for this project.
- A48. An interior ladder is required at the top hatch and side manways. Design shall be manufacturer's standard ladder design but similar to the Manway Ladder B3/D-323.
- Q49. Specification Section 43 4117, Tanks, Page 11, has two paragraphs discussing Roof Ventilators. Paragraph 2.7.D.1 indicates that either fiberglass or aluminum is acceptable. Paragraph 2.7.H indicates that the Roof Ventilator be all fiberglass. However, the provided plans, Drawing D-323, Detail B5, calls for an aluminum vent. We recommend use of aluminum vents. Please verify the requirements for the Roof Ventilator(s).
- A49. Roof vents may be either aluminum or fiberglass.
- Q50. Specification Section 43 4117, Tanks, Page 11, Paragraph 2.7.I, calls for a liquid level indicator made of fiberglass. Please confirm the interior float is required to be fiberglass and the exterior gauge board can be aluminum with a vinyl facing.
- A50. Float shall be fiberglass, exterior gauge board shall be aluminum with vinyl facing suitable for outdoor environment.

- Q51. Specification Section 43 4117, Tanks, Page 11, Paragraph 2.7.K.1.a, indicates that the fall prevention system be made of aluminum. However, in the provided plans, Drawing D-324, Detail D4, Note 4, a stainless steel fall prevention device is indicated. We recommend a stainless steel fall prevention device be required, please confirm.
- A51. Fall prevention system may be aluminum or stainless steel.
- Q52. Drawing D-121, Detail B4 - Deicer Management Tanks Elevation, shows an eccentrically sloped floor is required. Please confirm the slope of the tank floor is 1/4" per foot.
- A52. Floor slope shall be as shown on D-121.
- Q53. Drawing D-322, Detail D4 - Floor Pipe, it does not appear that this detail is referenced in the tank plan view. Please provide a location, if any, that requires this detail.
- A53. Detail D4/D-322 does not have a location. It was left in the design as an alternate for the smaller inlet pipe (Influent for Treatment Effluent, Q and QQ).
- Q54. Drawing D-324, Detail C6 – Dome Hatch, please note that there is a Float Switch Rack located in the dome hatch. This is not mentioned in the specification. Please confirm if a Float Switch Rack will be required for this project.
- A54. A float switch rack shall be mounted within reach from the dome hatch for installation of level floats per D-121 and the mechanical and instrumentation drawings.
- Q55. Please clarify how the removal and replacement of unsuitable foundation soils will be paid for and directed if excavations are required below the limits of excavation. We recommend that a unit price pay item be added, or clarification be provided as to how unsuitable soils will be paid for below the limits of excavation.
- A55. Please see answer A34.
- Q56. Please confirm that the geotechnical engineer will inspect and provide approval of the subgrade for the tanks. Please also confirm if the owner will pay for geotechnical services relative to subgrade approvals.
- A56. The geotechnical engineer will inspect and approve subgrades for structural approval associated with Chapter 10 certification. It is the contractor's responsibility to test material and soils in accordance with the specifications.
- Q57. The Phase Construction Limits plan show Highly Reflective Interlocking Barricades, please provide a specification for the interlocking barricades. [These are shown on G-107, G-108 and G-109].
- A57. Use channelizer cones in places Highly Reflective Interlocking Barricades.

- Q58. Detail A1/C-151 refers to keynote #7, this keynote refers to C4/C-512. However Drawing C-512 does not include a detail "C4". Should keynote #7 on Drawing C-151 refer to C4/C-514 instead
- A58. Keynote #7 on Drawing C-151 should reference C4/C-514 and not C4/C-512.
- Q59. In reference to Addendum #04 Q1- #3155-BG-2 in which this pipe was directed to be black iron (BI): please issue revised P&ID D-775 where Biogas system piping is to be BI, and confirm, as all P&IDs currently indicate all Biogas system piping lines to be Stainless Steel.
- A59. P&IDs are being revised and will be submitted with all changes incorporated prior to bid deadline.

**PROJECT MANUAL  
VOLUME 1 - DIVISION 0**

**ADDENDUM ITEM NO. 1**

In the Proposal Forms, **DELETE** pages P-4 through P-24 and **REPLACE** with pages P-4(R) through P-19(R) attached to this addendum.

Changes include:

- Adding Item No. 53 "Excavation of Unsuitable Material"
- Combining all manual process valves into one Item No. – 86
- Combining all Electric and Pneumatic Process Valves into one Item No. – 87
- Combining all Piping Specialties into Item No. - 90

**VOLUME 4 - DIVISION 21-32**

**ADDENDUM ITEM NO. 2**

In Section 23 3713, page 1 of 4, Part 1.1.B, **DELETE** "Division 08 Section "Louvers and Vents" for fixed and adjustable louvers and wall vents, whether or not they are connected to ducts."

**ADDENDUM ITEM NO. 3**

In Section 26 0519, Item 1.2 B, **ADD** "8. Must comply fully with 100% of the RIAC IT Standards document as published. This includes by reference TIA/EIA 568, 569, 598, 606A (for Class -3), 607, and TIA-758A. Labeling listed as "OPTIONAL" under 606A shall be performed."

**ADDENDUM ITEM NO. 4**

In Section 26 0526, Item 3.1 A, **ADD** "Comply with J-STD-607-A as a primary standard. Comply with NEC and other standards when J-STD does not cover the situation."

**ADDENDUM ITEM NO. 5**

In Section 26 0533, Item 1.2, **ADD**

- “14. EIA/TIA-568-C: Generic Telecommunications Cabling for Customer Premises
- 15. EIA/TIA-569-C: Telecommunications Pathways and Spaces
- 18. ANSI TIA/EIA 598-A Optical Fiber Cable Color Coding
- 19. ANSI TIA-606-A Administration Standard Telecommunications Infrastructure
- 20. EIA/TIA-607-B Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises
- 21. TIA-758 –A Customer-owned Outside Plant Telecommunications Infrastructure Standard
- 22. The RIAC IT/Telecommunications Technical and Wiring Standards Document”

**ADDENDUM ITEM NO. 6**

In Section 26 0533, Item 3.1 F, **ADD** “Conduits shall be labeled in accordance with the examples illustrated in TIA/EIA 606-A. Labeling format shall be in accordance with TIA/EIA 606-A for Class-3 Administration.”

**ADDENDUM ITEM NO. 7**

In Section 26 0533, Item 3.1 DD, **ADD** “Each physical firestop location shall be labeled in full compliance with ANSI TIA/EIA 606-A, chapter 6.1.3 (May 2002) or newer as appropriate.”

**ADDENDUM ITEM NO. 8**

In Section 26 0543, Item 1.2 A, **ADD** “3. TIA-758 –A Customer-owned Outside Plant Telecommunications Infrastructure Standard.”

**ADDENDUM ITEM NO. 9**

In Section 26 0543, Item 3.1, **INSERT** “A. Full compliance with TIA-758-A.”

**ADDENDUM ITEM NO. 10**

In Section 26 0553, Item 2.2, **ADD** “ I. All telecommunications receptacles shall have labels matching the format specified by the references identified in paragraph 1.2. A. of this Section.”

**ADDENDUM ITEM NO. 11**

In Section 26 0553, Item 2.3 B, **ADD** “All conduit markings and firestops penetrations shall be marked in full compliance with TIA/EIA-606-A, including all references to optional pathway identification and labeling format. Refer to RIAC IT standards included as ATTACHMENT 1 in 40 9127.”

**ADDENDUM ITEM NO. 12**

In Section 26 0553, Item 2.4 B, **DELETE** 25 0519”, **REPLACE** with “26 0519”

**ADDENDUM ITEM NO. 13**

In Section 26 0553, Item 2.4, **ADD** “C. Telecommunications cabling and keystone jacks for Ethernet, Phone, or control circuits shall have wire colors matching the faceplate jack colors. Not

more than one of each color cable or jack shall be installed per outlet/faceplate. Additional cable colors, Color scheme, labeling, and installation standards shall closely resemble the examples shown in RIAC's current IT/Telecommunications Technical and Wiring Standards Document."

**ADDENDUM ITEM NO. 14**

In Section 26 0553, Item 3.3, **ADD** "C. All conduit markings and firestops penetrations shall be marked in full compliance with TIA/EIA-606-A, including all references to optional pathway identification and labeling format. Refer to RIAC IT standards included as ATTACHMENT 1 in 40 9127."

**ADDENDUM ITEM NO. 15**

In Section 26 2726, Item 3.1, **ADD** "Outlet face plates shall be labeled in accordance to TIA/EIA-606-A and the RIAC IT standards included as Attachment 1 to 40 9127."

**ADDENDUM ITEM NO. 16**

In Section 27 1370, Item 1.2, **ADD** "E. All work shall meet or exceed all standards expressed in Division 26 of this project."

**ADDENDUM ITEM NO. 17**

In Section 27 1370, Item 3.1, **ADD** "G. All conduit markings and firestops penetrations shall be marked in full compliance with TIA/EIA-606-A, including all references to optional pathway identification and labeling format. Refer to RIAC IT standards included as ATTACHMENT 1 in 40 9127. Outlet face plates shall be labeled in accordance to TIA/EIA-606-A and the RIAC IT standards."

**ADDENDUM ITEM NO. 18**

Section 28 1300, Item 1.1 B, **ADD**

4. Division 26 Section 0500 "Common Work for Electrical"
5. Division 26 Section 0519 "Raceway and Boxes for Electrical Systems"
6. Division 26 Section 0526 "Grounding and Bonding for Electrical Systems"
7. Division 26 Section 0533 "Low-Voltage Electrical Power Conductors and Cables"

**ADDENDUM ITEM NO. 19**

In Section 28 1300, Item 3.2 A, **APPEND** "and of all requirements and reference documents in Division 26 of this project."

**ADDENDUM ITEM NO. 20**

In Section 28 2300, Item 1.1 A 1, **DELETE** "a complete" and **REPLACE** with "a federated extension of the existing"

**ADDENDUM ITEM NO. 21**

In Section 28 2300, **DELETE** Item 1.1 A 2, and **REPLACE** with “1.1 A 2 Contractor shall provide all necessary components to include, but not be limited to cameras, storage, and licensing necessary so as to not impact the performance, storage retention period, or other functional use of the existing video surveillance system.”

**ADDENDUM ITEM NO. 22**

In Section 28 2300, **DELETE** Item 1.1 C 1, **REPLACE** with “1.1 C 1 General: All wiring shall be in accordance with specification sections 26 0519 Low-Voltage Electrical Power Conductors and Cables and 40 9127 Fiber Optic Cable and Appurtenances. All conduit markings and firestops penetrations shall be marked in full compliance with TIA/EIA-606-A, including all references to optional pathway identification and labeling format. Refer to RIAC IT standards included as ATTACHMENT 1 in 40 9127.”

**ADDENDUM ITEM NO. 23**

In Section 28 3100, Item 1.2 D, **ADD** “7. Fully comply with requirements listed in Division 26 of this project.

**ADDENDUM ITEM NO. 24**

In Section 32 1750, page 4 of 7, Part 2.6.B, **DELETE** “Stainless steel melting tank/hopper with structural steel supports” and **REPLACE** with “Stainless steel melting tank/hopper and wetted parts with structural steel supports.”

**VOLUME 5 - DIVISION 33-44**

**ADDENDUM ITEM NO. 25**

In Section 40 1923, Item 1.2, **ADD** “F. Division 26 of this project”

**ADDENDUM ITEM NO. 26**

In Section 40 9123, Item 2.12, **ADD** “B. Telecommunications cabling and keystone jacks for Ethernet, Phone, or control circuits shall have wire colors matching the faceplate jack colors. Not more than one of each color cable or jack shall be installed per outlet/faceplate. Additional cable colors, Color scheme, labeling, and installation standards shall closely resemble the examples shown in RIAC’s current IT/Telecommunications Technical and Wiring Standards Document.”

**ADDENDUM ITEM NO. 27**

In Section 40 1923, Item 2.8 B, **APPEND** “but shall not exceed the maximum cable lengths specified by ANSI TIA/EIA-568B”

**ADDENDUM ITEM NO. 28**

In Section 40 1923, Item 3.5, **ADD** “B. Testing referred to, but corresponding test not found in 40 9400.”

**ADDENDUM ITEM NO. 29**

In Section 40 9127, **DELETE** Item 1.3 A 2, **REPLACE** with “1.3 A 2 TIA/EIA-568-B.3 Optical Fiber Cabling Components Standard.”

**ADDENDUM ITEM NO. 30**

In Section 40 9127, Item 1.3 A, **ADD** “4. Division 26 of this project”

**ADDENDUM ITEM NO. 31**

In Section 40 9127, Item 2.1 B 3 a, **DELETE** item #6

**ADDENDUM ITEM NO. 32**

In Section 40 9400, Item 3.5, **ADD**  
“F. Perform and record all tests for telecommunications cabling in accordance with TIA/EIA 568B and ensure that each cable successfully passes each test.  
H. Provide a digital record of all tests to RIAC on CD or DVD media.”

**ADDENDUM ITEM NO. 33**

In Section 43 4117, page 8 of 18, Part 2.4.A.9.a, second line **DELETE** “35,200 gpm” and **REPLACE** with “5,200 gpm”

**ADDENDUM ITEM NO. 34**

In Section 43 4117, page 10 of 18, Part 2.7.B.2, last line **DELETE** “Materials for bracing shall be Type 316 stainless steel.” and **REPLACE** with “Pipe shall be supported by concrete encasement.”

**ADDENDUM ITEM NO. 35**

In Section 43 4117, page 10 of 18, Part 2.6.A, second line **DELETE** “or shotcrete” and in the third line **DELETE** “shotcrete core wall encasing a steel steel diaphragm” and **REPLACE** with “precast concrete wall core wall including a steel diaphragm.”

**ADDENDUM ITEM NO. 36**

In Section 43 4117, page 11 of 18, Part 2.7.I, **DELETE** “All fiberglass with Type 316 stainless steel fasteners” and **REPLACE** with “Float shall be fiberglass. Exterior gauge board shall be aluminum with vinyl facing with markings suitable for outdoor environment and fasteners shall be Type 316 stainless steel.”

**ADDENDUM ITEM NO. 37**

To Section 43 4117 **ADD** form 43 4117-A attached to this addendum.

## DRAWINGS

### **ADDENDUM ITEM NO. 38**

On Drawing No. G-108, Phase 3D

- second bullet under Major Work Items, **DELETE** "Pavement Crossing shall be accomplished using trenchless construction" and **REPLACE** with "Pavement Crossing shall be accomplished using open cut of pavement."
- third bullet under Major Work Items, **DELETE** "Phase 3D to be completed prior to Phase 2B (Both shall utilize trenchless construction)."

### **ADDENDUM ITEM NO. 39**

On Drawing No. C-162 Keynote #1, make the following changes:

**DELETE** "For continuation see C-117" and **REPLACE** with "For continuation see C-351".

### **ADDENDUM ITEM NO. 40**

On Drawing No. C-151 Keynote #7, make the following changes:

- **DELETE** "C4/C-512" and **REPLACE** with "C4/C-514".

### **ADDENDUM ITEM NO. 41**

On Drawing No. C-302 Keynote #2, make the following changes:

- **DELETE** "B7/C-521" and **REPLACE** with "C1/C-521".

### **ADDENDUM ITEM NO. 42**

On Drawing No. A-308 Wall Type 4, make the following changes:

- **DELETE** callout to "3 5/8" metal stud @ 16" O.C. MAX" and **REPLACE** with "6" metal stud @ 16" O.C. MAX".
- to callout "5/8 tile backer board" **ADD** "or 5/8" gypsum board in rooms 103, 104 and 105".

### **ADDENDUM ITEM NO. 43**

On Drawing No. C-324, make the following changes:

- **ADD** callout to fiber optic manhole as "Electrical Manhole Type 2, see E-501".

### **ADDENDUM ITEM NO. 44**

On Drawing No. C-325, make the following changes:

- **ADD** callout to fiber optic manhole as "Electrical Manhole Type 2, see E-501".

**ADDENDUM ITEM NO. 45**

On Drawing No. C-343, make the following changes:

- **ADD** callout to fiber optic manhole as “Electrical Manhole Type 2, see E-501”.

**ADDENDUM ITEM NO. 46**

On Drawing No. D-111, make the following changes:

- **DELETE** “130-GL-36”-RCP” and **REPLACE** with “130-GL-36”-HDPE”.

**ADDENDUM ITEM NO. 47**

On Drawing No. D-115, make the following changes:

- **DELETE** “216-GL-27”-HDPE” and **REPLACE** with “216-GL-27”-RCP”.
- **DELETE** “217-GL-30”-HDPE” and **REPLACE** with “217-GL-30”-RCP”.
- **DELETE** “217-GL-36”-HDPE” and **REPLACE** with “218-GL-36”-RCP”.

**ADDENDUM ITEM NO. 48**

On Drawing No. D-121, Detail B4, make the following changes:

- Below Nozzle Schedule **ADD** “Note 1. Install interior ladders at manway and square dome hatch locations.”

**ADDENDUM ITEM NO. 49**

On Drawing No. D-316, make the following changes:

- **DELETE** “216-GL-27”-HDPE” and **REPLACE** with “216-GL-27”-RCP”.
- **DELETE** “217-GL-30”-HDPE” and **REPLACE** with “217-GL-30”-RCP”.

**ADDENDUM ITEM NO. 50**

On Drawing No. D-323, Detail D5, make the following changes:

- **DELETE** Note #1

**ADDENDUM ITEM NO. 51**

On Drawing No. D-761, make the following changes:

- **DELETE** reference to “2905-SLID-1”-CS” and **REPLACE** with “2905-SLID-3”-CS”.

**ADDENDUM ITEM NO. 52**

On Drawing No. D-764, make the following changes:

- **DELETE** callout to “HV-2991” and **REPLACE** with callout to “HV-3191”.

- **DELETE** callout to "HV-2991" and **REPLACE** with callout to "HV-3191".
- **DELETE** callout to "HV-2992" and **REPLACE** with callout to "HV-3192".
- **DELETE** callout to "HV-2993" and **REPLACE** with callout to "HV-3193".
- **DELETE** callout to "HV-2994" and **REPLACE** with callout to "HV-3194".

Note that Addendum No. 6 consists of 18 pages of text and two attachments.

APPROVED BY: Date: 2/15/2013  
  
RIAC Signature

END OF ADDENDUM No. 6

**PROPOSAL FORMS**

**BID FORMS**

To: Rhode Island Airport Corporation  
T. F. Green Airport  
2000 Post Road  
Warwick, Rhode Island, 02886  
ATTN: Laurie Sirois  
Grants and Contracts Administrator

Date: \_\_\_\_\_

Time: \_\_\_\_\_

For: **Deicer Management System**  
**T. F. Green State Airport**  
**Warwick, Rhode Island**  
**RIAC Construction Contract No. 24327**

The undersigned, having visited the site of the work and having familiarized themselves with local conditions affecting the cost of the work and with all requirements of the proposed Contract Documents, and duly issued Addenda to said documents, as acknowledged herein, propose to furnish and perform all labor, materials, necessary tools, expendable equipment, and all utility and transportation services necessary to perform and complete in a workmanlike manner all work required by said documents and Addenda.

ADDENDA: Bidder acknowledges receipt of and has examined the Addenda:

Addendum Number \_\_\_\_\_ dated \_\_\_\_\_

Acknowledged by \_\_\_\_\_ date \_\_\_\_\_

BID PROPOSAL: This Proposal shall be filled in by the BIDDER with prices written in both words and numerals and the extensions made by him/her. In case of discrepancy between the words and numerals, the amounts shown in words shall govern.

BIDDER agrees to perform all necessary labor, furnish all materials and do all work described in the Specifications, including allowances, and shown on the Drawings, for the following lump sum prices and/or unit process:

**PROPOSAL FORMS**

<p align="center"><b>Rhode Island Airport Corporation</b>  <b>Deicer Management System</b>  <b>T. F. Green State Airport</b>  <b>Warwick, Rhode Island</b>  <b>RIAC Construction Contract No. 24327</b>  <b>SCHEDULE OF PRICES</b>  <b>BASE BID</b></p>							
Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
1	M-001.1	1 AL	Allowance for Radios at five thousand dollars and no cents	\$5,000	00	\$5,000	00
2	01 5213.1	18 MO	Engineer's Trailer at _____ Dollars & Cents per Month				
3	03 3000.1	1 LS	Cast-In-Place Concrete at _____ Dollars & Cents per Lump Sum				
4	03 6000.1	20 CY	Grout at _____ Dollars & Cents per Cubic Yard				
5	04 2200.1	1 LS	Concrete Unit Masonry and Other Non-listed Building Items at _____ Dollars & Cents per Lump Sum				
6	05 1200.1	1 LS	Structural Steel Framing at _____ Dollars & Cents per Lump Sum				
7	05 5100.1	1 LS	Metal Fabrications (Stairs, Railing and Grating) at _____ Dollars & Cents per Lump Sum				
8	07 1113.1	1 LS	Waterproofing at _____ Dollars & Cents per Lump Sum				
9	07 2100.1	1 LS	Thermal Insulation at _____ Dollars & Cents per Lump Sum				
10	07 4213.1	1 LS	Metal Roof & Wall Panels at _____ Dollars & Cents per Lump Sum				

**PROPOSAL FORMS**

<b>Rhode Island Airport Corporation  Deicer Management System  T. F. Green State Airport  Warwick, Rhode Island  RIAC Construction Contract No. 24327  SCHEDULE OF PRICES  BASE BID</b>							
Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
11	07 5216.1	9,980 SF	SBS Modified Bit. Membrane Roofing at _____ Dollars & Cents per Square Feet				
12	08 1113.1	1 LS	Doors, Frames and Hardware at _____ Dollars & Cents per Lump Sum				
13	08 3323.1	2 EA	Overhead Coiling Doors at _____ Dollars & Cents per Each				
14	SHEET A-001.1	2 EA	Windows at _____ Dollars & Cents per Each				
15	09 3000.1	15 SF	Ceramic Tile at _____ Dollars & Cents per Square Feet				
16	09 5113.1	980 SF	Acoustical Panel Ceilings at _____ Dollars & Cents per Square Feet				
17	09 6519.1	435 SF	Resilient Base & Tile Flooring at _____ Dollars & Cents per Square Feet				
18	09 6813.1	250 SF	Tile Carpeting at _____ Dollars & Cents per Square Feet				
19	09 9123.1	10,800 SF	Floor Coating at _____ Dollars & Cents per Square Feet				
20	09 9123.2	1 LS	Painting and Coatings at _____ Dollars & Cents per Lump Sum				
21	10 2800.1	1 LS	Toilet and Bath Acc. at _____ Dollars & Cents per Lump Sum				

**PROPOSAL FORMS**

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Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
22	10 4400.1	1 LS	Fire Protection Specialties and Defibrillator at _____ Dollars & Cents per Lump Sum				
23	11 5300.1	1 LS	Residential Appliances, Laboratory Equipment and Supplies at _____ Dollars & Cents per Lump Sum				
24	12 3553.1	1 LS	Laboratory Casework at _____ Dollars & Cents per Lump Sum				
25	13 3424.1	2 EA	Pre-engineered Fiberglass Building - Sampler Shelters at _____ Dollars & Cents per Each				
26	13 3424.2	2 EA	Pre-engineered Fiberglass Building - Monitor Shelters at _____ Dollars & Cents per Each				
27	13 3424.3	2 EA	Pre-engineered Fiberglass Building - Odor Control Shelters at _____ Dollars & Cents per Each				
28	13 3424.4	2 EA	Pre-engineered Fiberglass Building - Condensate Return and Chemical Addition Shelters at _____ Dollars & Cents per Each				
29	21 1000.1	1 LS	Water-Based Fire Suppression at _____ Dollars & Cents per Lump Sum				
30	22 0500.1	1 LS	Plumbing Distribution System at _____ Dollars & Cents per Lump Sum				
31	22 1519.1	1 EA	Packaged Air Compressor System at _____ Dollars & Cents per Each				

**PROPOSAL FORMS**

<b>Rhode Island Airport Corporation  Deicer Management System  T. F. Green State Airport  Warwick, Rhode Island  RIAC Construction Contract No. 24327  SCHEDULE OF PRICES  BASE BID</b>							
Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
32	22 4300.1	1 LS	Plumbing Fixtures at _____ Dollars & Cents per Lump Sum				
33	23 0500.1	1 LS	HVAC Distribution System at _____ Dollars & Cents per Lump Sum				
34	23 1123.1	1 LS	Natural Gas Piping System at _____ Dollars & Cents per Lump Sum				
35	23 1123.2	1 AL	Natural Gas Utility Fee Allowance at <u>three thousand three hundred sixty seven dollars and no cents</u> Dollars & Cents per Allowance	\$3,367	00	\$3,367	00
36	23 5216.1	2 EA	Boiler and Flue Stack at _____ Dollars & Cents per Each				
37	23 5523.1	4 EA	Gas-Fired Radiant Heaters at _____ Dollars & Cents per Each				
38	23 5719.1	1 EA	Liquid-to-Liquid Heat Exchanger, Influent at _____ Dollars & Cents per Each				
39	23 5719.2	1 EA	Liquid-to-Liquid Heat Exchanger, Caustic at _____ Dollars & Cents per Each				
40	23 5719.3	2 EA	Liquid-to-Liquid Heat Exchanger, Reactor at _____ Dollars & Cents per Each				
41	23 8120.1	1 LS	Packaged Rooftop Air Conditioners at _____ Dollars & Cents per Lump Sum				
42	23 8236.1	4 EA	Convectors (Finned-Tube Heater) at _____ Dollars & Cents per Each				

**PROPOSAL FORMS**

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Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
43	23 8239.1	4 EA	Unit Heater at _____ Dollars & Cents per Each				
44	26 0500.1	1 LS	Electrical Distribution Systems at _____ Dollars & Cents per Lump Sum				
45	26 3212.1	1 EA	Engine Driven Generator, Treatment at _____ Dollars & Cents per Each				
46	26 3212.2	1 EA	Engine Driven Generator, Cargo at _____ Dollars & Cents per Each				
47	26 3212.3	1 EA	Engine Driven Generator, Terminal at _____ Dollars & Cents per Each				
48	26 5000.1	1 LS	Lighting at _____ Dollars & Cents per Lump Sum				
49	27 1370.1	1 LS	Telephone Service Entrance at _____ Dollars & Cents per Lump Sum				
50	28 1300.1	1 LS	Access Control and Video Surveillance at _____ Dollars & Cents per Lump Sum				
51	28 3100.1	1 LS	Fire Detection and Alarm System at _____ Dollars & Cents per Lump Sum				
52	31 2000.1	17,200 SY	Site Clearing & Earth Moving at _____ Dollars & Cents per Square Yard				
53	31 2000.1	450 CY	Excavation of Unsuitable Material at _____ Dollars & Cents per Cubic Yard				

**PROPOSAL FORMS**

<b>Rhode Island Airport Corporation</b> <b>Deicer Management System</b> <b>T. F. Green State Airport</b> <b>Warwick, Rhode Island</b> <b>RIAC Construction Contract No. 24327</b> <b>SCHEDULE OF PRICES</b> <b>BASE BID</b>							
Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
54	31 2319.1	1 LS	Dewatering at _____ Dollars & Cents per Lump Sum				
55	32 1750.1	2 EA	Portable Snowmelter at _____ Dollars & Cents per Each				
56	32 3113.1	1,800 LF	Chain-Link Fences and Gates at _____ Dollars & Cents per Linear Feet				
57	DETAIL A1 C-501.1	2,860 SY	Gravel Road at _____ Dollars & Cents per Square Yard				
58	P-209.1	7,900 CY	Crushed Aggregate Base Course (FAA Pavements) at _____ Dollars & Cents per Cubic Yard				
59	P-401S.1	4,600 SY	Dense Graded Bit. Concrete Pavements, Base, and Marking (RIDOT), at _____ Dollars & Cents per Square Yard				
60	P-401S.2	2,160 TON	Dense Graded Bit. Concrete Pavements (FAA for Ramp, TW & RW ) at _____ Dollars & Cents per Ton				
61	P-501.1	1,690 SY	Portland Cement Concrete Pavement (FAA, for Ramp) at _____ Dollars & Cents per Square Yard				
62	P-602.1	4,850 GAL	Bituminous Prime Coat (FAA Pavements) at _____ Dollars & Cents per Gallon				
63	P-603.1	1,460 GAL	Bituminous Tack Coat (FAA Pavements) at _____ Dollars & Cents per Gallon				

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Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
64	P-605.1	1,300 LF	Joint Sealing Filler at _____ Dollars & Cents per Linear Foot				
65	P-620.1	440 LF	Pavement Markings (FAA Pavements) at _____ Dollars & Cents per Linear Foot				
66	DETAIL D1 C-501.1	85 SY	Concrete Sidewalk at _____ Dollars & Cents per Square Yard				
67	T-905.1	18,100 SY	Topsoil and Seeding (Outside AOA Fence) at _____ Dollars & Cents per Square Yard				
68	T-905.2	13,300 SY	Topsoil and Seeding (Inside AOA Fence) at _____ Dollars & Cents per Square Yard				
69	33 0130.1	470 LF	Rehabilitation of Sewer Utilities (Sewer Lining) at _____ Dollars & Cents per Linear Feet				
70	33 1100.1	1 LS	Water Utility Distribution Piping at _____ Dollars & Cents per Lump Sum				
71	33 3100.1	1 LS	Sanitary Utility Sewerage Piping at _____ Dollars & Cents per Lump Sum				
72	33 4100.1	1 LS	Storm Utility Piping (includes CBs and MHs) at _____ Dollars & Cents per Lump Sum				
73	SHEET C-516.1	265 LF	Runway 5-23 Crossing at _____ Dollars & Cents per Linear Feet				
74	33 4300.1	1,740 LF	HDPE Force Mains, 2" at _____ Dollars & Cents per Linear Feet				

**PROPOSAL FORMS**

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Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
75	33 4300.2	665 LF	HDPE Force Mains, 3" at _____ Dollars & Cents per Linear Feet				
76	33 4300.3	655 LF	HDPE Force Mains, 4" at _____ Dollars & Cents per Linear Feet				
77	33 4300.4	10,490 LF	HDPE Force Mains, 12" at _____ Dollars & Cents per Linear Feet				
78	33 4300.5	4,660 LF	HDPE Force Mains, 18" at _____ Dollars & Cents per Linear Feet				
79	33 8000.1	1 AL	Electrical Utility Fee Allowance at <u>twenty one thousand four hundred eighty one dollars and twenty five cents</u> Dollars & Cents per Allowance	\$21,482	00	\$21,482	00
80	33 8000.2	1 LS	Electrical Utilities at _____ Dollars & Cents per Lump Sum				
81	33 9013.1	420 LF	Ductile Iron Pipe, 4" at _____ Dollars & Cents per Linear Feet				
82	40 0514.1	4,424 LF	Steel Process Piping, <=4" at _____ Dollars & Cents per Linear Feet				
83	40 0514.2	311 LF	Steel Process Piping, >4" at _____ Dollars & Cents per Linear Feet				
84	40 0515.1	404 LF	Stainless-Steel Process Pipe and Fittings at _____ Dollars & Cents per Linear Feet				
85	40 0518.1	144 LF	Plastic Process Piping, <=4" at _____ Dollars & Cents per Linear Feet				

**PROPOSAL FORMS**

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Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
86	40 0523.01	LS	Process Valves at _____ Dollars & Cents per Lump Sum				
87	40 0524.01	LS	Electric and Pneumatic Process Valves at _____ Dollars & Cents per Lump Sum				
88	40 0525.1	1 EA	Process Slide Gates, 24"x24" at _____ Dollars & Cents per Each				
89	40 0525.2	1 EA	Process Slide Gates, 36"x36" at _____ Dollars & Cents per Each				
90	40 0526.1	LS	Piping Specialties at _____ Dollars & Cents per Lump Sum				
91	40 1200.1	1 LS	Compressed Air Piping System at _____ Dollars & Cents per Lump Sum				
92	40 4113.1	350 LF	Process Piping Heat Tracing at _____ Dollars & Cents per Linear Feet				
93	40 9100.1	1 LS	I&C for Process Systems at _____ Dollars & Cents per Lump Sum				
94	40 9113.2	3 EA	Chemical Properties Process Measurement Devices - TOC Monitor at _____ Dollars & Cents per Each				
95	40 9127.1	16,953 LF	Control, Signal and Communication Wiring (Fiber Optic Cable and Appurtenances) at _____ Dollars & Cents per Linear Feet				

**PROPOSAL FORMS**

<p align="center"><b>Rhode Island Airport Corporation  Deicer Management System  T. F. Green State Airport  Warwick, Rhode Island  RIAC Construction Contract No. 24327  SCHEDULE OF PRICES  BASE BID</b></p>							
Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
96	40 9136.1	6 EA	Gas Analysis Process Measurement Devices - Methane Level Detector  at _____ Dollars & Cents per Each				
97	40 9137.1	8 EA	pH Level Measuring Devices  at _____ Dollars & Cents per Each				
98	40 9138.1	8 EA	Gas & Liquid Pressure Measuring Devices - Differential Pressure Transmitter  at _____ Dollars & Cents per Each				
99	40 9138.2	50 EA	Gas & Liquid Pressure Measuring Devices - Pressure Gauge  at _____ Dollars & Cents per Each				
100	40 9138.3	5 EA	Gas & Liquid Pressure Measuring Devices - Pressure Switch  at _____ Dollars & Cents per Each				
101	40 9138.4	23 EA	Gas & Liquid Pressure Measuring Devices - Pressure Transmitter  at _____ Dollars & Cents per Each				
102	40 9140.1	4 EA	Temperature Process Measuring Devices - Infrared Temperature Sensor  at _____ Dollars & Cents per Each				
103	40 9140.2	14 EA	Temperature Process Measuring Devices - Temperature Gauge  at _____ Dollars & Cents per Each				
104	40 9140.3	1 EA	Temperature Process Measuring Devices - Temperature Switch  at _____ Dollars & Cents per Each				

**PROPOSAL FORMS**

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Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
105	40 9140.4	11 EA	Temperature Process Measuring Devices - Temperature Transmitter at _____ Dollars & Cents per Each				
106	40 9141.1	8 EA	Flow Process Measuring Devices - Flow Switches at _____ Dollars & Cents per Each				
107	40 9141.2	3 EA	Flow Process Measuring Devices - Magnetic Flow Meter, 2" at _____ Dollars & Cents per Each				
108	40 9141.3	1 EA	Flow Process Measuring Devices - Magnetic Flow Meter, 4" at _____ Dollars & Cents per Each				
109	40 9141.4	3 EA	Flow Process Measuring Devices - Magnetic Flow Meter, 12" at _____ Dollars & Cents per Each				
110	40 9141.5	1 EA	Flow Process Measuring Devices - Magnetic Flow Meter, 18" at _____ Dollars & Cents per Each				
111	40 9141.6	6 EA	Flow Process Measuring Devices - Thermal Mass Flow Meter at _____ Dollars & Cents per Each				
112	40 9142.1	61 EA	Level Process Measuring Devices - Float Level Switch at _____ Dollars & Cents per Each				
113	40 9142.2	19 EA	Level Process Measuring Devices - Radar/Ultrasonic Level Transmitter at _____ Dollars & Cents per Each				

**PROPOSAL FORMS**

<b>Rhode Island Airport Corporation</b> <b>Deicer Management System</b> <b>T. F. Green State Airport</b> <b>Warwick, Rhode Island</b> <b>RIAC Construction Contract No. 24327</b> <b>SCHEDULE OF PRICES</b> <b>BASE BID</b>							
Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
114	43 2113.1	3 EA	Centrifugal Liquid Pumps - End Suction at _____ Dollars & Cents per Each				
115	43 2113.2	7 EA	Centrifugal Liquid Pumps - MagDrive at _____ Dollars & Cents per Each				
116	43 2113.3	10 EA	Centrifugal Liquid Pumps - Vertical Inline at _____ Dollars & Cents per Each				
117	43 2116.1	13 EA	Air Diaphragm Liquid Pumps and Accessories at _____ Dollars & Cents per Each				
118	43 2129.1	2 EA	Metering Liquid Pumps - Diaphragm at _____ Dollars & Cents per Each				
119	43 2137.1	15 EA	Peristaltic Liquid Pumps at _____ Dollars & Cents per Each				
120	43 2139.1	1 LS	Submersible Liquid Pumps - PS-T at _____ Dollars & Cents per Lump Sum				
121	43 2139.2	1 LS	Submersible Liquid Pumps - PS-C at _____ Dollars & Cents per Lump Sum				
122	43 2139.3	1 LS	Submersible Liquid Pumps - PS-D, PS-E, and PS-S at _____ Dollars & Cents per Lump Sum				
123	43 2143.1	3 EA	Sump Liquid Pumps at _____ Dollars & Cents per Each				
124	43 2256.1	4 EA	Liquid Process Mixers - Side Entry at _____ Dollars & Cents per Each				

**PROPOSAL FORMS**

<p style="text-align: center;"><b>Rhode Island Airport Corporation</b>  <b>Deicer Management System</b>  <b>T. F. Green State Airport</b>  <b>Warwick, Rhode Island</b>  <b>RIAC Construction Contract No. 24327</b>  <b>SCHEDULE OF PRICES</b>  <b>BASE BID</b></p>							
Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
125	43 2256.2	2 EA	Liquid Process Mixers - Top Mount at _____ Dollars & Cents per Each				
126	43 4116.1	2 EA	Atmospheric Tanks and Vessels - Condensate Return Skids at _____ Dollars & Cents per Each				
127	43 4116.2	1 EA	Atmospheric Tanks and Vessels - Plastic Tank for Process Collection at _____ Dollars & Cents per Each				
128	43 4116.3	1 EA	Atmospheric Tanks and Vessels - Plastic Tank/Mixer for Micronutrients at _____ Dollars & Cents per Each				
129	43 4116.4	2 EA	Atmospheric Tanks and Vessels - Plastic Tank/Mixer for Macronutrients at _____ Dollars & Cents per Each				
130	43 4116.5	1 EA	Atmospheric Tanks and Vessels - SS Storage Tank for 50% NaOH at _____ Dollars & Cents per Each				
131	43 4116.6	2 EA	Atmospheric Tanks and Vessels - SS Storage Tank for Solids at _____ Dollars & Cents per Each				
132	43 4117.1	2 EA	Prestressed Concrete Storage Tank - 2.9 Million Gallon Concrete Tank at _____ Dollars & Cents per Each				
133	44 1133.1	1 EA	Thermal Oxidizers (Flare) at _____ Dollars & Cents per Each				

**PROPOSAL FORMS**

<b>Rhode Island Airport Corporation</b> <b>Deicer Management System</b> <b>T. F. Green State Airport</b> <b>Warwick, Rhode Island</b> <b>RIAC Construction Contract No. 24327</b> <b>SCHEDULE OF PRICES</b> <b>BASE BID</b>							
Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
134	44 1134.1	1 LS	Biogas Handling and Safety Equipment and Specialties at _____ Dollars & Cents per Lump Sum				
135	44 3116.1	3 EA	Activated Carbon Adsorption Odor Control Equipment at _____ Dollars & Cents per Each				
136	44 4413.1	305 LF	Water Treatment Chemical Feed Equipment - SS Tubing and ancillary at _____ Dollars & Cents per Linear Feet				
137	44 4413.2	1 LS	Water Treatment Chemical Feed Equipment - PEX and ancillary at _____ Dollars & Cents per Lump Sum				
138	44 4236.1	1 EA	Water Treatment Dissolved Air Flotation Equipment at _____ Dollars & Cents per Each				
139	44 4463.1	1 EA	Water Polymers Equipment at _____ Dollars & Cents per Each				
140	44 4501.1	2 EA	Water Treatment Biological Systems Reactors and Separators - Reactor Vessel at _____ Dollars & Cents per Each				
141	44 4501.2	2 EA	Water Treatment Biological Systems Reactors and Separators - Separator Vessel at _____ Dollars & Cents per Each				
142	44 4501.3	1 AL	Water Treatment Biological Systems Reactors and Separators - BioSeed Loading at <u>fifteen thousand dollars and no cents.</u>	\$15,000	00	\$15,000	00

**PROPOSAL FORMS**

<b>Rhode Island Airport Corporation  Deicer Management System  T. F. Green State Airport  Warwick, Rhode Island  RIAC Construction Contract No. 24327  SCHEDULE OF PRICES  BASE BID</b>							
Item No.	Pay Item No.	Estimated Quantity	Item of Work With Unit Prices Written in Words	Figures			
				Unit Bid Price		Bid Amount	
				Dollars	Cents	Dollars	Cents
143	44 4502.1	53 TON	Granular Activated Carbon Media at _____ Dollars & Cents per Ton				
144	44 4616.1	1 EA	Sludge Dewatering Equipment (Centrifuge) at _____ Dollars & Cents per Each				
PLEASE MAKE SURE A BID IS ENTERED FOR EACH ITEM				_____ (Amount in Figures)			
ESTIMATED TOTAL CONTRACT PRICE FOR BASE BID IS:				_____ (Amount in Words)			

**PROFESSIONAL ENGINEER CERTIFICATION**

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**Section 43 4117-A – Page 1 of 1**

FORM 43 4117-A  
PROFESSIONAL ENGINEER CERTIFICATION

The undersigned hereby certifies that he/she is a professional structural engineer licensed in the State of Rhode Island and that he/she has been employed by

\_\_\_\_\_ to design  
(Name of Tank Manufacturer)

two prestressed concrete tanks in conformance with section 43 4117 for the Deicer Management System.

The undersigned further certifies that he/she has performed the structural design of the tanks, that said design is in conformance with all applicable local, state and federal codes, rules and regulations, including the requirements AWWAD110 and that his/her signature and P.E. stamp have been affixed to all calculations and drawings used in, and resulting from, the design.

The undersigned hereby agrees to make all “as-built” design drawings and calculations available to the Owner within thirty days following written request.

\_\_\_\_\_  
P.E. Name

\_\_\_\_\_  
Tank Manufacturer’s Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

\_\_\_\_\_  
Title

\_\_\_\_\_  
Address