

ADDENDUM NO. 7.

Bidding and Contract Documents

For

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

RHODE ISLAND AIRPORT CORPORATION

February 20, 2013

PREPARED BY:
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NOTICE TO PROSPECTIVE BIDDERS

ADDENDUM NO. 7

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. 7) and date (2/20/13) 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.

DUE TO THE SIZE OF ADDENDUM NO. 7

INTERESTED PARTIES SHOULD E-MAIL A REQUEST TO
LSIROIS@PVDAIRPORT.COM TO RECEIVE A COMPLETE SET

THANK YOU!

BIDDER QUESTIONS

- Q1. *What concrete is to include integral waterproofing admixture? Is it just the slab on grade at elevation 31.50' or does it include the caustic and reactor pit base mats as well? Would it include the storage tanks?*
- A1. See attached sheets A-302 Detail 1, A-303 Detail 1 and Detail 3, and A-306, Detail 10.
- Q2. *What if any type of damp proofing is to be applied to foundation walls? If any is it section 07 1113 or section 07 1326? If section 07 1326 is it to include drainage board? Drawings indicate rigid insulation in two locations but not drainage board.*
- A2. See attached sheet A-306, Detail 6.
- Q3. *Please provide a detail for the louver jamb (column line 3) shown on sheet S-202.*
- A3. As noted in structural section 1/S-302, the contractor must provide a horizontal bond beam within the reinforced masonry bearing/shear walls at the base of the louver opening - the quantity & extents of reinforcement shall be as indicated on the structural drawings. As shown in structural section 1/S-302 & as defined in the detail 1/S-401 "Typical Concrete Masonry Lintel Schedule", the contractor must provide a 16" deep reinforced masonry lintel at the head of the louver opening - the quantity & extents of reinforcement shall be as indicated in the structural drawings. As noted on structural drawing S-102, the contractor must provide fully grouted cells reinforced with additional vertical reinforcement at the wall jambs at each edge of this louver opening - the quantity, size, & layout of the additional vertical reinforcement shall be as indicated on the structural drawings. The contractor must refer to the architectural drawings for all information on the connection & finish details at each edge of the opening where the louver assembly connects to the masonry wall.
- Q4. *Please explain definitions of symbols shown on A-102. What do the squares with text 1A and 2A represent?*
- A4. They are wall tags associated with the walls types on sheet A-308.
- Q5. *The accessories schedule shown in specification section 10-2800, 3.3A list items "J3 and H1". However these items are not included as part of paragraph 2.2. Please advise if items J3 and H1 are to be installed, if they are, please provide item descriptions.*
- A5. J3 is a typing error and should be a J2. H1 is a 24 inches by 36 inches mirror.
- Q6. *The geotechnical report, prepared by GZA Geo-Environmental, Inc. dated January 2012, indicates the net allowable bearing pressure of the site to be 3.0 ksf. The anticipated maximum contact pressure below the tank perimeter is approximately 4.0 ksf, which exceeds the specified allowable soil bearing capacity. We request that the geotechnical engineer provide recommendations to improve the site bearing conditions, in response to the expected design contact pressure of 4.0 ksf.*

- A6. The geotechnical engineer (GZA) has calculated the pressures under the concrete storage tank as approx. 2,100 psf in the center and 2,880 psf under the footing per a typical footing design.
- Q7. *Please provide the values for differential settlements associated with the AWWA D110 Type III tanks.*
- A7. The estimated settlement for the 2,100 / 2,880 psf loading is 2 to 2.5 inches (in the center of the tank). There would be more settlement for 4,000 psf. The subgrade modulus for compacted natural soils or structural fill in this area is 150 pounds per cubic inch (GZA report, bottom line of page 25).
- Q8. *In reference to Addendum #04 Q2 valves HV-3151, and HV-3152: please specify which paragraph section of given specification 40 0523 is applicable to these Biogas valves (i.e. - gas valves in stainless piping system), as well as HV-3101, 3102, 3103, 3104, 3105, 3108, 3109, 3112, 3115, 3118, 3120, 3122, 3124, 3130, 3132, 3134, all three-way valves ZK-3101, 3102, 3120, 3130, and all check valves HV-3106, 3111, 3116, 3121, 3131*
- A8. The gas service butterfly valves (HV-3151, HV-3152 and others) shall be per Section 40 0523 Part 2.6. The gas service ball valves (HV-3101, HV-3102 and others) shall be per Section 23 1123 Part 2.4 D. The valve actuators identified by ZK-3101, ZK-3102, ZK-3120, ZK-3130 and ZK-3140 are integral of the drip trap assemblies (identified as DT-3101, et.al.) and specified in 44 1134 2.3 A 4 “Low Pressure Drip Traps.” Check valves XV-3106 and 3116 shall be per the condensing boiler manufacturer’s standard boiler train arrangement. Check valves XV-3121 and XV-3131 are specified in 44 1134 2.3 A 7 “Back Pressure Check Valves.” Check valve XV-3111 is specified in 40 0523 2.11 B.
- Q9. *Please specify which paragraph section of spec 40 0523 is applicable to back pressure regulators BPR-3101, 3110, and 3301*
- A9. Back Pressure valve BPR-3101 is contained in the assembly specified in specified in 44 1134 2.3 A 5 “Backpressure regulator and flame trap assembly.” Back pressure valves BPR-3301 and BPR-3110 are specified in 23 1123 2.5 B.
- Q10. *Please provide spec section and paragraph for valve type for three-way valve ZV-2901 on dwg D-764*
- A10. ZV-2901 is a three-way steel ball valve with a motor actuator in the caustic system (CF) are specified in 40 0523 2.10.C.
- Q11. *Please provide spec section and paragraph applicable to the following:*
- *ball valves in the stainless pipe caustic system (CF) HV-2401 through HV-2462,*
 - *ball valves in the PEX pipe caustic system (FS) HV-2643 through 2646*
 - *check valves in PEX pipe caustic system (CF) XV-2643 through 2646*
 - *Angle valves in macronutrient system BPV/PRV-2510, 2511 2520, 2521*
 - *ball valves in the PEX pipe macronutrient system (MANF) HV-2540, 2560, 2570, 2580*
 - *three-way valve ZV-2560 (FCV-2560?) at macronutrient pump*

- A11. Ball valves in the caustic system (CF) are specified in 40 0523 2.10.C. Ball valves in the foam spray line dilution line into caustic system (FS) are standard process ball valves specified in 40 0523 2.10.A. Check valves in the foam spray line dilution line into caustic system (FS) are standard process check valves specified in 40 0523 2.11.B. Back pressure/pressure relief valves (BPV/PRV-2510, 2511 2520, 2521) are typically combination valves available from the manufacturer, if unavailable, they are to be provided separately under the sections of 40 0523. Ball valves in the macronutrient system (MANF) are specified in 40 0523 2.10.C. FCV-2560 (may also be identified on some sheets as ZV-2560) is a motorized steel ball valve as specified in 40 0523 2.10.C.
- Q12. *Please provide spec section and paragraph applicable to strainers S-2510 and S-2520 in Macronutrient drawing D-782*
- A12. These strainers are specified in Section 40 0526 2.9 A.
- Q13. *Are there any flow rates and slope of the pipe available for the existing 72 inch RC pipe shown on Sheet C-121.*
- A13. Refer to Keynote 4 on drawing C-121: "CONTRACTOR TO PROVIDE MEANS FOR BYPASSING FULL FLOW FROM 48" PIPE UPSTREAM OF EXISTING CONCRETE STORM CHAMBER. SLOPE OF 48" PIPE IS APPROXIMATELY 2.3%." This is the pipe that feeds the 72" pipe. There is no available flow information for the 72" pipe.
- Q14. *Please advise as to what Bid Item the Cold Form Metal Framing/Sheathing work on the upper level should be grouped into?*
- A14. Cold Form Metal Framing/Sheathing should be included in Item No. 6 "Structural Steel Framing."
- Q15. *Please advise as to what Bid Item the Metal Stud Walls/GWB/Tile Backer work should be grouped into?*
- A15. Metal Stud Walls/GWB/Tile Backer work should be included in Item No. 5 "Concrete Unit Masonry and Other Non-listed Building Items."
- Q16. *Perimeter drain:
Based on the fact that, according to GZA's Geotechnical Report, design high groundwater level is 21.0 feet – or 6.5 feet below tank FFE – we assume that it is not necessary to design the tank floor for hydrostatic uplift conditions.
However, given that tank FFE is 3 to 6 feet below the surrounding grade, it is important to know if there is a need for a perimeter drain.
Question #1: Is a perimeter drain required?*
- A16. Perimeter drain is not required per the design.
- Q17. *Seismic design:
There seem to be conflicting requirements in the project documents with respect to the seismic design.*

a) According to Section 434117-2.4F of the tank specifications, the site is classified as Site Class F; the design spectral response accelerations at 5% damping (determined on the basis of a site-specific response analysis), are SDS = 0.55g and SD1 = 0.48g; and the seismic Importance Factor IE = 1.25

b) On the other hand, according to Plan Sheet S-001 and page 28 of GZA's Geotechnical Report, the site is classified as Site Class D, and the mapped spectral response accelerations are SS = 0.228g and S1 = 0.060g, which correspond to design spectral response accelerations of SDS = 0.243g and SD1 = 0.096g.

Moreover, According to Sheet S-001, the Seismic Importance Factor IE = 1.0

Question #2: What are the correct seismic design criteria on which to base the tank design?

A17. The seismic design criteria on S-001 are correct.

Q18. *[Specification 11 5300] Line 2.11B lists a Hach sampler controller model (900MAX) that has the capability to simultaneously operate water quality sensors (dissolved oxygen, conductivity, pH). The specification does not indicate a need for this capability. Is there another reason that the 900MAX was named as the acceptable Hach controller? If not, shall we quote the SD900, which is a closer match to the spec requirements (and more comparable to the capabilities of the ISCO-Teledyne model 3700 that is also listed)?*

A18. The Hach/Sigma SD900 sampler is acceptable.

Q19. *The spec [11 5300] does not indicate whether the sampler is to be a portable or refrigerated model. The ISCO-Teledyne model 3700 that is listed is a portable model. Please clarify the type of sampler housing required.*

A19. Automated sampler shall be portable model.

Q20. *Spec. Section 13 3425 (page 6) schedule of prefab buildings and drawing D-523. The sizes of the buildings on the schedule are 6' x 8'. The drawings indicate 8'-6" x 5'-6" and 13'-6" x 5'-6". We also note there are four shelters at the DMT's which are not on the schedule. Please review and clarify.*

A20. The shelters and the dimensions are:

Terminal and Cargo Pump Station Monitoring Structures: 8' x 10' x 7' (D-312 and D-316)

DMT-1 and DMT-2 Odor Control Buildings: 5.5' x 8.5' x 7' (D-523)

DMT-1 and DMT-2 Chemical Feed Shelter: 5.5' x 13.5' x 7' (D-523)

Terminal and Cargo Diversion Structure Shelters: 2.75' x 2.25' x 4.2' (D-311 and D-315) these shall be the manufacturer's standard design to house an automated sampler (refer to 11 5300 2.11).

Q21. *Section 00 0320 Bid Form Items #179 and #180 have a notation of SS at the end of the description. Does this denote Stainless Steel and if so are these tanks to be fabricated Stainless Steel, which is contrary to the Prefabricated Process tank Schedule on Sheet D-635.*

A21. Bid form notation for #179 and #180 (new Item numbers #130 and #131) should be CS to be consistent with the material listed in D-635. Note: plastic tanks will be considered for these

- uses if a RI P.E. structural engineer certifies that the tanks will perform with adequate safety factors for the 50% sodium hydroxide and solids collection uses.
- Q22. *Section 00 320 Bid Form Items #163 through #165 (new Item numbers #114 through #116) have a total of Twenty (20) pumps. The Centrifugal Pump Schedule on Sheet D-637 has 23 Centrifugal Pumps Detailed. Please review and clarify.*
- A22. For Bid Item No. 115 “Centrifugal Liquid Pumps – MagDrive” The estimated Quantity shall be 8. For Bid Item No. 116 “Centrifugal Liquid Pumps – Vertical In-line” The estimated Quantity shall be 12.
- Q23. *Per Section 44 4501 Water Treatment Biological Systems Reactors and Separators, 2.2 Manufacturers, there are only two pre-approved manufacturers. We have spoken with Dover Tank Co., and they have indicated that they are not bidding the Project. Are there any other fabricators that will be acceptable for this equipment?*
- A23. Other manufacturers that comply with 44 4501 1.6 “Quality Assurance” will be acceptable. The two listed manufacturers have previously fabricated reactor and separator vessels for similar projects.
- Q24. *Specification section 43-4117, Paragraph 3.2.A.3.a calls for a 30 mil PVC moisture barrier to be installed as shown on the drawings or as directed by the tank manufacturer. There is none shown on the drawings. If this is not required by the tank manufacturer is this not installed?*
- A24. The 30-mil PVC moisture barrier is not a requirement if not required by the tank manufacturer.
- Q25. *Section 44 3116 – Activated Carbon Adsorption Odor Control Equipment, 3.4 Schedule indicates that there is a unit located on the roof of the treatment building for the DAF & Solids Tank vent. Upon review of the contract documents there are no details of this equipment. Please provide details for this system i.e. what is it connecting to (with sizing) and where the vent is going out of the unit.*
- A25. This is a passive, 55-gal drum activated carbon adsorber container that can be attached to the air vent of the DAF and solids tanks, if needed. The vent is a standard sanitary roof vent shown on A-104 (building line B1).
- Q26. *What pay item is the Site Natural Gas under?*
- A26. Natural gas utility connection fee is Bid Item No. 35 (Addendum #6 Bid tab) and the outdoor natural gas piping run is included in Bid Item No. 34, “Natural Gas Piping System.”
- Q27. *The P&ID’s indicate only the CF to be insulated. Please clarify which systems are to be insulated.*
- A27. Other items that are insulated are: Biogas venting from reactors and separators (D-751, D-752, D-755, D-756) and biogas piping at the flare (D-775) in addition to the caustic (D-781). Hydronic system (D-791) must be insulated per the specifications.

- Q28. *In section 101400 – Signage and on Drawing A-601 it is unclear what signs and what type need to be purchased. Can you please provide a signage schedule, including material type and size?*
- A28. Signage schedule is provided in this addendum.
- Q29. *In section 102800 – Toilet and Bath Accessories, in the schedule for the Bathrooms and Shower Room, it references item H1 and J3, I could not find a specification for these items, please provide. In addition there are several items that are listed in the specifications that I could not find anything on a schedule as to where and if they are required. (F3, G1, J4, Q7, and V1)*
- A29. Please refer to answers #5 and #30. Folding Shower Seat (R2) and Soap Dish (J4) – are listed in the specification but not required. Refer to attached sheet A-401 for all other designations.
- Q30. *In section 102800 – Toilet and Bath Accessories, where is item V-1 required?*
- A30. V-1 is required at all exposed waste water lines. V-1 will be required at traps under sinks.
- Q31. *In section 102800 – Toilet and Bath Accessories, it calls out W1 – Mop and Broom Holder, on Drawing A-102 shows a Mop Shelf at each Mop Sink, is W1 considered the Mop Shelf? If not, what is the Mop Shelf?*
- A31. The Mop Shelf is considered W1.
- Q32. *In section 113100 – Residential Appliances, it states to furnish as part of the residential appliance allowance. I did not see an allowance item written in, can an allowance item be provided or should that section be deleted?*
- A32. That section should be deleted. The Residential Appliances are to be furnished under Bid Item No. 24 “Residential Appliances and Laboratory Equipment and Supplies.”
- Q33. *In section 113100 – Residential Appliances, 1.1A1 – says the section includes the Kitchen Exhaust Ventilation; however I did not see anything in the section about it. Should this be provided under this section and if so, please provide specifications.*
- A33. Kitchen Exhaust Ventilation is not required.
- Q34. *In section 087100 – Door Hardware, states to be furnished under an allowance item but I did not see any allowance in the Bid Form.*
- A34. That section should be deleted. Door hardware are to be furnished under Bid Item No. 12 “Doors, Frames and Hardware.”
- Q35. *On Sheet D-161 force main D is shown as 4” DI leaving the discharge pump station and entering the discharge flow vault, where it leaves as 4” HDPE, however on sheet D-162 force main D is shown as 3” HDPE entering PS-S valve vault and then continues on to the*

- 10" connection point. The bid quantities are consistent with this pipe being 3". Please clarify what size pipe this should be and adjust bid items accordingly.*
- A35. The force main FM-D is 3" HDPE per C-351. The 4" size was used to be consistent with standard DI sizes. DI of size 3" may be substituted for 4" DI in the Effluent and Discharge pump stations (D-161) if it is available.
- Q36. *Please clarify if the new 2.5" gas line noted on Sheet D-191 is above ground or below the floor of hangar 2*
- A36. The new 2.5" gas line should be above ground.
- Q37. *Specification section 09 9123, note 3.3F states that exposed pipes are required to be painted. Please confirm that where pipe is insulated; painting of the pipe is not required.*
- A37. Section 09 9123 "Interior Painting", paragraph 3.3F calls out for exposed interior piping to be painted in addition to any pipe identification that may be required. This includes services that are insulated. Exposed piping means any pipe that is not concealed in a pipe chase.
- Q38. *Is color coding of pipe insulation required?*
- A38. Pipe Identification shall be by Specification 40 0553 2.2.B.
- Q39. *Can we get a clarification on the trade jurisdiction of the HDPE site / Air side piping.*
- A39. For design purposes, site piping is shown on the civil drawings. The contractors may break up the construction trade jurisdictions however they choose.
- Q40. *What is involved with installing the three (3) owner-supplied 10,000 gallon temporary glycol storage tanks. We need more detail on these tanks. Is there any piping? Etc.*
- A40. The owner-supplied tanks are 10,000-gallon mobile storage or "Frac" tanks. These tanks shall be moved from current air-side location (on ramps) to the locations shown on the drawings. There is no piping required.
- Q41. *Spec Section 40-9500, paragraph 3.1, the spec says all operator interface graphic screen development and alarm software configuration will be by the engineer; however it is not clear who will be programming the PLC's. Please clarify. (reference Allen-Bradley control Logix)*
- A41. Engineer team will program the PLCs.
- Q42. *Please clarify which carbon steel piping gets painted.*
- A42. Please refer to answer #37.
- Q43. *Can we get the bid extended an extra couples days, to Thursday, 2-28-13?*
- A43. The bid date will remain Tuesday, February 26.

- Q44. *Bid Drawing “Natural Gas Service Line Plan & Profile”, C-318, Sheet Keynotes item 2 states that National Grid will connect to the main in the street and lay the pipe from the main to the gas meter located at the Facility. Please confirm National Grid’s portion of the work is part of the Pay Item No. 23 1123.2, Allowance in the amount of \$3,367.00. If this work is not part of the allowance item please provide a contact at National Grid who can provide this proposal.*
- A44. NationalGrid provided the estimate for the work in Bid Item No. 35 – “Natural Gas Utility Fee Allowance”. This pay item includes the service installation at the Treatment Building, the meter installation outside the airport fence for the Terminal Pump Station, and the meter installation at Hanger 2 for the Cargo Pump Station.
- Q45. *Bid Drawing “Terminal Collection System Proposed Site Plan: Utilities From South Cargo”, C-124, Sheet Keynote Item 1 states that National Grid will install the natural gas meter near the south cargo area. Please confirm National Grid’s portion of the work is part of Pay Item No. 23 1123.2, Allowance in the amount of \$3,367.00. If this work is not part of the allowance item please provide a contact at National Grid who can provide this proposal.*
- A45. Please refer answer #44.
- Q46. *The Equipment Bid Specifications under Manufacturers provides a list acceptable manufacturers however it also states ‘Or pre-bid approve equal’. Please review and advise if the Engineer or Owner have pre-approved any additional manufacturers than what is presented in the bid documents. If not, please confirm they are not will to accept any additional manufacturers post-bid.*
- A46. Additional manufacturers that requested to be listed are included at the end of this addendum. The only manufacturers that will be accepted port-bid is the reactor and tank manufacturer who must meet the qualifications in the Quality Control section of 44 4501.
- Q47. *Is there a specification or product detail for the fume hood shown in the laboratory (room 109) on sheet A-401?*
- A47. Fume hood shall be Genie Scientific model 300SL-BB or pre-bid approved equal. A specification is added as part of this addendum.
- Q48. *Can the chemicals listed in 11 5300 paragraph 2.15 & 2.16 be provided as “tech grade quality” instead of the specified “food grade quality”?*
- A48. The chemicals listed in 11 5300 Parts 2.15 (A and B) and 2.16 A may be reagent grade, food grade, or technical grade.
- Q49. *Is there a specification or product detail for the caustic hood shown on sheet A-202?*

- A49. Caustic hood is similar to the door canopies [also identified as MFD (manufactured) canopies] and is detailed on Sheet A-306. Installation detail for the caustic hood does not include the 12" bond beam and door frame.
- Q50. *Specification Section 13 3424 Paragraph 3.4 lists the nominal floor area dimensions as 6'x8' for the Terminal Pump Monitoring Station and the Cargo Pump Monitoring Station. Drawings D-111, D-115, D-312, D-316 list the shelter dimensions as 8'x10'. Which dimensions are correct?*
- A50. Please refer to answer #20.
- Q51. *On sheet C-316 it shows a PW 2" HDPE water line and on sheet C-113 it shows a PW 4" HDPE line. Is the size of the PW line 2" or 4"?*
- A51. The PW line on C-316 should be 4". Sheets C-113 and C-116 are correct.
- Q52. *On sheet C-116 it shows the FP and PW connecting to the existing water line in Warwick Industrial Drive. What is the size of the existing water line?*
- A52. The existing water utility line in Warwick industrial Drive is 12", according to the City's records. A flow test has been performed on the line.
- Q53. *Sheet G-111 Note #5 States "Four lighted X's shall be provided by the Contractor and become property of RIAC at completion of project." Can an allowance item be added to purchase four lighted X's?*
- A53. No allowance bid item will be added for the lighted X's.
- Q54. *Please advise the pay item for the labor and material to provide the 1" HDPE Gas Line from the Treatment Plant to the Flare Structure.*
- A54. Please refer to answer #26.
- Q55. *Drawing number C-120 (terminal Collection) sheet Key Notes #3 reads "Contractor Shall install owner supplied 10,000 gallon temporary glycol storage tank at indicated location." Drawing C-133 (Cargo Collection) Key Note #1 reads similarly as well as drawing C-112 Key Note #7. These notes are referred to by leaders pointing to a 30' x 10' (scaled) area. Will the temporary storage tanks require any type of slab or foundation to support them. Also, will any piping be required, and if so which Pay Item will that piping be covered under?*
- A55. The tanks shall be place on the finished gravel road pull-off. Please also refer to answer #40.
- Q56. *Drawing G-108 under the Phase 3D Major Work Items a couple of the bullets read "HDPE pipe and PVC Conduit installation across pavement. Pavement crossing shall be accomplished using trenchless construction." & "Phase 3D to be completed prior to phase 2B (both shall utilize trenchless construction)." However when looking at drawing C-151,*

the work is shown as being performed via open cut. Please confirm that this work is to be performed via open cut.

- A56. Please refer to Addendum #6, answer #23.
- Q57. *Specification Section 31 2000 –Earth Moving, paragraph 3.19 - Disposal of Surplus and Waste Materials sub-paragraphs A & B seem to contradict where to bring surplus satisfactory soil. They indicate to transport it to the designated storage areas on the Owner's property as well as to dispose of it legally. Please confirm what is to be done with surplus satisfactory material. Also, please identify where the designated storage areas are on the Owner's property. Is there a maximum quantity that the Owner can accept at their designated areas? Also, what properties define satisfactory soil?*
- A57. Satisfactory soils can be placed on the Treatment Site to the north of the storage tanks and the Treatment Building or to the east of the detention basin. The limiting factor is obstruction of sheet flow surface drainage when placed in level lifts. Contaminated soil and material that is solid waste may not be placed in the surplus soil areas.
- Q58. *Pay item 13 3424.1 lists 2 Pre-engineered Fiberglass Building Sampler Shelters. Where are these shelters located and what are the dimensions?*
- A58. Please refer to answer #20.
- Q59. *Please verify the grout at the walls. Architectural drawing A307 which shows detail of wall indicates fully grouted yet 2/S401 indicates grout is only at vertical reinforcing and Bondbeam.*
- A59. Refer to structural drawings for CMU grouting requirements.
- Q60. *Please verify if insulation is required at exterior block. Specifications call for insulation, however nothing is shown on drawings except 3" rigid R13 exterior of walls.*
- A60. R-13 rigid insulation shown on the exterior side of the CMU is the only thermal barrier for walls required at conditioned spaces. All exterior CMU walls enclosing conditioned spaces will have rigid insulation.
- Q61. *Please confirm that water repellent is at exterior CMU only?*
- A61. Damp proofing is required at the exterior face of CMU.
- Q62. *There are no base of wall details. Should it be assumed that there is a through wall flashing? If so what material should be used. Also, would it be included at doors, windows and louvers?*
- A62. Do not use through wall flashing anywhere on this project. All openings in CMU will be trimmed out with Metal panel trim.

CLARIFICATIONS

The MFD (manufactured) Canopy is detailed on A-306 (see answer #49).

Drawing E-104: The 4/0 bare copper ground conductor below the duct bank does not continue to the Terminal PS and Cargo PS areas and does not need to be bonded to the Terminal PS and Cargo PS areas.

Two 24" pressure relief valves are located on top of the storage tanks and shall be included in Bid Item No. 132 "Prestressed Concrete Storage Tank - 2.9 Million Gallon Tank."

Please refer to Drawing D-701 for P&ID Symbology. The rectangle with the wavy line underneath the pressure indicators/transmitters is the diaphragm seal defined in the specifications.

Please refer to Drawings E-111, E-112 and E-113 for the classified area designations for electrical equipment.

**PROJECT MANUAL
VOLUME 1 - DIVISION 0**

ADDENDUM ITEM NO. 1

In Proposal Forms, Page 16(R), **DELETE** page and **REPLACE** with page 16(RR), attached.

ADDENDUM ITEM NO. 2

In Section 00 0320, **DELETE** pages 1 through 21 and **REPLACE** with page 1(R) though 16(R), attached.

**PROJECT MANUAL
VOLUME 3 – DIVISIONS 8-13**

ADDENDUM ITEM NO. 3

In Section 08 7100, page 1 of 16, **DELETE** paragraph 1.2

ADDENDUM ITEM NO. 4

In Section 10 1400, Page 9 of 9, **ADD** "3.4 Sign Schedule:

Sign Tag	Sign Size	No.	Text Size	Text	Notes
A	7" x 1-3/8"		1"	various	See Sheet A-601
B-1	6" x 6" (approx.)	1	5/8"	AIR COMPRESSOR ROOM	
B-2	6" x 6" (approx.)	1	5/8"	ELECTRICAL ROOM	
B-3	6" x 6"	1	5/8"	CONTROL ROOM	