

TOWNSHIP OF PISCATAWAY, NEW JERSEY
REQUEST FOR BIDS
FOR PISCATAWAY COMMUNITY AND CULTURAL ARTS CENTER PROJECT

**BIDS *ORIGINALLY* DUE 2:00 PM, THURSDAY, NOVEMBER 1, 2018 AT 455 HOES LANE
PISCATAWAY, NJ 08854**

**BIDS NOW DUE 2:00PM, THURSDAY, NOVEMBER 8, 2018 AT 455 HOES
LANE PISCATAWAY, NJ 08854**

Addendum No. 2
Issued on October 23, 2018

This constitutes **Addendum No. 2**, dated October 23, 2018, to the above referenced Request for Bids for the Piscataway Community and Cultural Arts Center Project issued by the Township of Piscataway on Thursday, September 27, 2018. Addendum No. 2 provides additional information to Bidders by way of the documents listed in **Part 1**, below. Finally, Addendum No. 2 provides answers to Bidders' questions, as set forth in **Part 2**, below. Bidders are advised of the requirement to acknowledge receipt of this Addendum No. 2 on the Acknowledgement of Receipt of Addenda Form, included in the Bid Documents, when submitting their bid.

As outlined above, this Addendum No. 2, also revises the date in which the bid opening will occur. The bids are now due **2:00PM, THURSDAY, NOVEMBER 8, 2018 AT 455 HOES LANE PISCATAWAY, NJ 08854**. **ADDITIONALLY, AS OUTLINED BELOW IN PART 1 THERE IS AN UPDATED BID PROPOSAL FORM THAT IS ISSUED AS PART OF THIS ADDENDUM WHICH BIDDERS MUST USE WHEN SUBMITTING BIDS AS OUTLINED IN THE BID DOCUMENTS.**

This Addendum No. 2 is being sent via certified facsimile transmission to all Bidders who have acquired the Bid Documents in accordance with the Notice to Bidders, **except that as to the additional documents listed at Part 1, below, a downloadable file to those documents is being provided to each Bidder via an email from bheller@ccorpusa.com, sent simultaneously with the facsimile transmission of Addendum No. 2. Any Bidder who has not received the downloadable file should immediately email bheller@ccorpusa.com.**

Part 1

1. Bidders are advised that the following documents are added to the Bid Documents:
 - a. SECTION 057000 DECORATIVE METAL
 - b. SECTION 114000 – FOODSERVICE EQUIPMENT
 - c. SECTION 233813 – COMMERCIAL KITCHEN HOODS

2. Bidders are advised that the following documents have been revised (if shown, in *italic* is the reasoning for the update):
 1. SECTION 283111 DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM
 2. M-200B – MECHANICAL HVAC PARTIAL BASEMENT PLAN
 3. M-201B – MECHANICAL HVAC FIRST FLOOR PLAN AREA B
 4. M-202C – MECHANICAL HVAC MEZZANINE FLOOR PLAN AREA C
 5. M-202D – MECHANICAL HVAC MEZZANINE FLOOR PLAN AREA D
 6. M-301D – MECHANICAL PIPING FIRST FLOOR PLAN AREA D
 7. M-302D – MECHANICAL PIPING MEZZANINE FLOOR PLAN AREA D
 8. M-401 – MECHANICAL WATER FLOW DIAGRAMS
 9. M-501 – MECHANICAL SCHEDULES (SHEET 1)
 10. M-706 – MECHANICAL CONTROL DIAGRAMS (SHEET 6)
 11. E-201.1D – ELECTRICAL M&P POWER FIRST FLOOR PLAN AREA D
 12. E-202.1D – ELECTRICAL M&P POWER MEZZANINE FLOOR PLAN AREA D
 13. FP-201C – FIRE PROTECTION PIPING FIRST FLOOR PLAN AREA C
 14. FP-602 – FIRE PROTECTION DETAILS (SHEET 2)
 15. **BID PROPOSAL FORM (PAGE 49-50)**
 16. A.00 - DRAWING INDEX
[Added new sheet A.104 (Roof Details)]

17. A.100C - BASEMENT PLAN AREA C
[Revised per response to Questions #67 - Added locations of F.E.C. (Fire Extinguisher cabinet)]
18. A.101 – OVERALL FIRST FLOOR PLAN
[Revised per response to Question #22 – Coordination, Revised per response to Question #24 – Coordination. Revised per response to Question #67 - Added locations of F.E.C. (Fire Extinguisher cabinet).]
19. A.101A – FIRST FLOOR PLAN AREA A
[Revised per response to Question #22 – Coordination. Revised per response to Question #67 - Added locations of F.E.C. (Fire Extinguisher cabinet).]
20. A.101B – FIRST FLOOR PLAN AREA B
[Revised per response to Question #67 - Added locations of F.E.C. (Fire Extinguisher cabinet).]
21. A.101C – FIRST FLOOR PLAN AREA C
[Revised per response to Question #33 - Provide Aluminum Railing and Post in lieu of Stainless Steel Railing between the Bleacher and Competitive Pool. Stainless steel railing Specification not required. Revised per response to Question #67 - Added locations of F.E.C. (Fire Extinguisher cabinet).]
22. A.101D – FIRST FLOOR PLAN AREA D
[Revised per response to Question #67 - Added locations of F.E.C. (Fire Extinguisher cabinet). Added stripping for Track at Basketball Court perimeter.]
23. A.102 – OVERALL MEZZANINE FLOOR PLAN
[Revised per response to Question #24 – Coordination.]
24. A.102D – MEZZANINE FLOOR PLAN AREA D
[Revised per response to Question #67 - Added locations of F.E.C. (Fire Extinguisher cabinet). Revised Door location and provided access steps to roof.]
25. A.103 – ROOF PLAN
[Revised per response to Question #24 – Coordination.]
26. A.104 – ROOF DETAILS
[Added new sheet for roof details]
27. A.211 – BUILDING SECTIONS
[Revised per response to Question #20 – Coordination (The Porcelain Façade System shown on B/A.211 should read “TERRACOTTA WALL PANEL (COLOR A)”]
28. A.212 – BUILDING SECTIONS
[Revised per response to Question #24 – Providing additional details for the architectural screen wall]

29. A.225 – WALL SECTIONS
[Revised per response to Question #22 – Coordination.]
30. A.301 – EXTERIOR WALL TYPES
[Revised per response to Question #14 – Deleted note “TOTAL R VALUE = 30 (MIN. AT LOW POINT)”. Revised per response to Question #17 – Z- Furring channel @ 24” o. c. max is acceptable.]
31. A.311 – DOOR SCHEDULE
[Added Door 129A (Coiling Door) to the Door Schedule.]
32. A.312 – DOOR SCHEDULE
[Added Door 154A (Coiling Door) to the Door Schedule.]
33. A.313 – DOOR SCHEDULE
[Coordinate Detail H6 & J6 per Door Schedule (revised from H.M. Frame to FRP Frame)]
34. A.501 – STAIR #1 & #2 PLANS AND SECTIONS
[Coordinate section tags. Clarification to Section A3]
35. A.501A – STAIR #1 & #2 DETAILS
[Added Detail 6 (Stair Section Detail)]
36. A.601C – REFLECTED CEILING PLAN AREA C
[Revised per response to Question #66 – Coordination. MTL-2, 24" x 24" x 1/4" Metalworks Mesh Linear Channel Panel by Armstrong per Finish Schedule]
37. A.704 – GYM STRIPPING PLAN
[Provide stripping for Track]
38. **PLAN AND EXPERIENCE FORM**
39. SECTION 074229 – TERRA-COTTA WALL PANELS
40. TECHNICAL SPECIFICATIONS TABLE OF CONTENTS
41. SECTION 221316 – SANITARY WASTE AND VENT PIPING
42. SECTION 221413 – FACILITY STORM DRAINAGE PIPING
43. SECTION 263213.16 – GASEOUS EMERGENCY ENGINE GENERATORS
44. E-201A – ELECTRICAL POWER FIRST FLOOR PLAN AREA A

- 45. E-201C – ELECTRICAL POWER FIRST FLOOR PLAN AREA C
- 46. E-203 – ELECTRICAL ENLARGED LAYOUT PLAN
- 47. E-402 – ELECTRICAL ONE LINE DIAGRAM (2 OF 3)
- 48. E-404 – ELECTRICAL GROUNDING SCHEMATICS
- 49. E-503 – ELECTRICAL EQUIPMENT SCHEDULES (SHEET 1 OF 6)
- 50. E-504 – ELECTRICAL EQUIPMENT SCHEDULES (SHEET 2 OF 6)
- 51. E-505 – ELECTRICAL EQUIPMENT SCHEDULES (SHEET 3 OF 6)
- 52. E-606 – ELECTRICAL DETAILS (SHEET 6)

3. Bidders are advised that the following documents are provided for reference:

- a. April 15, 2014 – FRANK H. LEHR ASSOCIATES GEOTECHNICAL INVESTIGATION

Part 2

The following answers are provided to written questions received from Bidders.

Q1. Please provide a copy of Project Division 1 Specifications

A1. All Division 1 specifications have been provided as part of Addendum 1

Q2. Please provide the specifications for the Sports Silhouette Images referenced in the note under the detail H/A.202 on drawing A.202 “Building Elevations”

A2. Specification section “057000 DECORATIVE METAL” has been provided as a part of this Addendum (Addendum No.2) and shall be considered as added to the Bid Documents.

- Q3. Please confirm if panel feeders for the electric will be permitted to be installed under the building slab.
- A3. There is no objection to installing new conduits under the slab for the new building electrical distribution.
- Q4. Plans and riser diagrams show a complete new system, with new control panels, etc. Spec 2.1, A states this is an extension of the existing system. Which is correct?
- A4. Project consists of a new building from the ground-up. Omit any reference to an existing system. A revised specification has been provided as a part of this Addendum (Addendum 2) and shall be considered as added to the Bid Documents.
- Q5. Please provide a copy of the geotechnical report.
- A5. A copy of the geotechnical report has been provided as outlined in Part 1 of this Addendum No.2
- Q6. We respectfully request that the Bid Opening Date be extended at least 1 week. A project of this size with the specialty items (3 pools) requires more than 30 days to properly complete a bid proposal. Subcontractors are hesitant to commit to bid the project due the accelerated bidding schedule. Extending the schedule would allow for more competition among the subcontractors which benefits the owner.
- A6. As per this Addendum and outlined in the header, the New Bid Opening Date shall be November 8, 2018 at 2:00PM At 455 Hoes Lane, Piscataway, NJ 08854.
- Q7. Page 87 in the Community Center project manual states the 'Plan and Experience' form must be returned with bid. This form indicates there are 5 pages but only 4 pages are provided.
- A7. A revised version of this document is being provided as part of this Addendum No. 2. There are only 4 pages of this document.
- Q8. Page 87 in Community Center project manual states forms AA-201 and AA-202 must be submitted with bid. These forms cannot be completed without a contract.
- A8. Forms AA201 and AA202 are required upon issuance of a contract and are not required to be submitted with the bid.

- Q9. Will you please consider adding Delta Connects as an approved equal for the Controls?
- A9. All “equal” submissions are to be submitted for consideration after award of a contract and during the construction process. All bid submissions shall comply with the bid documents as outlined.
- Q10. There are specifications for Overhead Coiling Grilles and a Detail of same on Dwg A.312 however the grilles are not listed on the Door Schedule. Please clarify.
- A10. Security Grill along Corr. 129A will be tagged as Door #129A in plan and will be included in the Door Schedule. Security Grill between Kitchen Servery 154 and Café 102B is a counter height security grill. This will be tagged as Door 154A in plan and will be included in the Door Schedule.
- Q11. With regard to the bid proposal page 49 & 50. Div 13 is missing on page 49. Page 50 states “Total Base Bid (Items 1-23)”. There isn’t a line for item 22 or 23. Please revise or clarify.
- A11. Division 13 has been added. On page 50, “Total Base Bid (Items 1-23)” should read “Total Base Bid (Items 1-22)”. A revised version of this from is being provided as part of this Addendum No. 2. This document shall be considered part of the Bid Documents as outlined in Part 1 of this Addendum No. 2..
- Q12. Please forward soils report.
- A12. A copy of the geotechnical report has been provided as outlined in Part 1 of this Addendum No.2
- Q13. Piping specification schedule for below slab sanitary waste & vent is calling for either Extra Heavy Cast iron with neoprene gaskets or no-hub with heavy duty no-hub couplings. There is no mention of Service Weight Cast Iron. Extra Heavy is a prohibited cost increase. Please advise if Service Weight would also be allowed. Additionally there are no specifications for the type of pipe material for the Storm Piping. Please advise.
- A13. Service weight cast iron pipe is acceptable. The specification 221316 Sanitary Waste and Vent Piping has been updated and is included with this response. Specification 221413 Facility Storm and Drainage Piping has been added to the project specifications for the storm piping requirements.
- Q14. On Dwg A.301. We have found a discrepancy in the drawings for the R-2 type roof construction for the canopy. The total 'R' value asks for a minimum of 30 at low point, and the specified thickness is 2 inches. The “R” value cannot be achieved with 2 inches of insulation, and will need to be thicker. A 2 inch thickness will yield an estimated 'R' value of 11.4. We estimate for an 'R' value of 30’, this will require two 2.6 inch insulation boards, which would mean over 5 inches of insulation. Please advise.

- A14. Roof Construction Type R2 for the Canopy. Please disregard the note “TOTAL R VALUE = 30 (MIN. AT LOW POINT)”. Type R2 is an exterior roof canopy and only requires 2” thick (min.) roof insulation.
- Q15. On Dwg A.301, Details R-3 & R-3A call for 6 inches of rigid insulation on Z-furring channels at 16 inches on center. Due to the curvature of the roofs in this project, we believe this will be too thick to bend to the required radius, as the insulation runs the risk of cracking while bending. We suggest as an alternative to lay down 2 or 3 layers of thinner insulated panels, built up to the required thickness of 6 inches, to make the process of bending easier. Please advise.
- A15. Code requires the roof to have a total of 6” continuous insulation or R Value of 30. On curved roof, this can only be accomplished with multiple layers of rigid insulation (staggered). Three layers of 2” thick rigid insulation is acceptable to attain the required R Value (30).
- Q16. Section 07523, 2.6 in the specifications asks for extruded – polystyrene board insulation, ASTM C 578, Type IV. We believe this insulation will be too difficult to bend to the required curvature of the roofs, and may run the risk of cracking while being bent. As an alternative, we would like to suggest flat polyisocyanurate roof insulation, as this material is more pliable, which will allow us to achieve the curvature of the roofs. This particular brand we use is Hunter Panels H – Shield series. Please advise.
- A16. The alternate polyisocyanurate is acceptable provided the required R Value is maintained.
- Q17. On Dwg A.301, Detail R-3 calls for a Z – furring channels 16 inches on center. We believe 16 inches on center may be too excessive, and may add too much cost to the project. We would normally do 24 to 48 inches on center for a roof like this. Please advise.
- A17. Z- Furring channel @ 24” o. c. max is acceptable.
- Q18. We respectfully request that Sports Floor ReAction 8 mm Rubber Tiles be considered an approved equal to Robbins Galaxy Fit 8 mm Rubber Tiles. The substitution will have no effect on the design or performance of the floor, but does offer potential cost savings. Attached please find the supporting documentation.
- A18. All “equal” submissions are to be submitted for consideration after award of a contract and during the construction process. All bid submissions shall comply with the bid documents as outlined.

- Q19. We respectfully request that Padenpor XTR 9+2 by Abacus Sports Installations LTD be considered an approved equal to Robbins Pulastic Classis 110 Resilient Athletic Flooring. The substitution will have no effect on the design or performance of the floor, but does offer potential cost savings. Attached please find the supporting documentation.
- A19. All “equal” submissions are to be submitted for consideration after award of a contract and during the construction process. All bid submissions shall comply with the bid documents as outlined.
- Q20. Please provide specification for Porcelain Façade System shown on B/A211
- A20. The Porcelain Façade System shown on B/A.211 should read “TERRACOTTA WALL PANEL (COLOR A)”
- Q21. I've contacted the manufacturers of the Terra-Cotta Wall Panels for pricing and it seems there is only one manufacture that produces Terra-Cotta Wall Panels. Are there other companies that manufacture the specified wall panels?
- A21. For list of other companies, refer to Spec. Section 074229-2.2A TERRA-COTTA WALL PANELS Addendum 2
- Q22. There are two 19/A225 Wall Sections on A225. Please advise
- A22. Wall Section along Col. E between Cols. 4 & 5 should read 20/A.225
Wall Section along Col. 9 between Cols. B & E should read 21/A.225
- Q23. We respectfully request that Zip-Lok 1 ½ “ Standing Seam Panel be considered an approved equal to the manufacturers listed in the specs.. The substitution will have no effect on the design or performance of the Standing Seam Metal Roof Panels, but does offer potential cost savings.
- A23. All “equal” submissions are to be submitted for consideration after award of a contract and during the construction process. All bid submissions shall comply with the bid documents as outlined.
- Q24. A101 Building Section calls out D/A211 and E/A211. It seems that the referenced call outs should be D/A212 and E/A212. Please confirm.
- A24. Correct. Will revise A.101 accordingly.

- Q25. Are the 4 and 6" waterlines joined together at the building?
- A25. The water lines are not joined at the building. The 4-inch pipe is the domestic water line and the 6-inch line is the fire service to the building.
- Q26. Could the clay core in the pond be a liner as a substitute?
- A26. All "equal" or "substitute" submissions are to be submitted for consideration after award of a contract and during the construction process. All bid submissions shall comply with the bid documents as outlined.
- Q27. Please advise if the Kitchen Equipment shown on Dwgs A.404 & A.405 is part of this contract. If so, please provide complete set of specifications.
- A27. See Addendum 2, Part 1.
- Q28. Please clarify the external wall finish. Plan indicate Ceramic wall panel system PX1 and PX2 & also only at one place Porcelain wall (B/A.211) is shown. All elevation indicates Terracotta wall panels (07 4229 Specs provided).
- A28. External wall panels system noted as Ceramic wall panel system PX1 & PX2 and Porcelain façade system should read as "Terra-cotta Wall Panels"
- Q29. 09 6623 -RESINOUS MATRIX TERRAZZON FLOORING, please indicate the location Plan and also in the Finish Schedule A.703
- A29. Delete 096623 - RESINOUS MATRIX TERRAZZON FLOORING
- Q30. Contract duration: Please confirm that 540 days (Approx. 18 Months) from NTP supplement specifications as indicated on Page 45. However, Pre-bid minutes indicate that it shall be 450 days from NTP.
- A30. The correct contract duration is for 540 days (approx. 18 months) from NTP as indicated on Page 45.
- Q31. Maintenance Bond: Please confirm or deny that this bond will be for two years by GC
- A31. As per general specifications section 30, page 31, a maintenance bond for the total sum of the contract price, indemnifying The Township of Piscataway against defects in construction for a period of (2) two years after the completion of the work, general war and tear excepted shall be provided by the General Contractor.

- Q32. Builder's Risk Policy: Please confirm or deny that this Policy will be by Owner.
- A32. As per general specifications section 25, page 28, The contractor shall obtain and pay for within their bid, a builder's risk policy providing coverage for all risk of physical loss or damage to the property in an amount equal to the total project value, less excavations and foundations.
- Q33. There is a stainless steel railing at the Competitive Pool, Specification Section 055213 Pipe and Tube Railings lists Steel and Iron, and Aluminum. Stainless steel is not specified. Please provide specification for stainless steel railing.
- A33. Provide Aluminum Railing and Post in lieu of Stainless Steel Railing between the Bleacher and Competitive Pool. Stainless steel railing Specification not required.
- Q34. Regarding the Architectural Screen Wall at the Entrance Canopy; Section 057000 Decorative Metal covers the Screen Wall? Additionally, are there other details showing fastening and general fabrication of the Screen Wall other than 6/A222? How is the Screen Wall fastened to the galvanized tube framing and is there a frame that is part of the mesh Screen Wall system? Please provide more details showing Screen Wall.
- A34. Will provide additional details of the decorative screen wall. See Dwg. A.212
- Q35. Can AISC Certification be waived in Structural Steel 051200 section?
- A35. The requirement for an AISC Certified erector/fabricator may be waived at the owners' written request. The design team may not have experience with each potential bidder and the requirement of an AISC certified erector/fabricator allows a minimum benchmark for qualifications. However, we see more owners choosing to waive this requirement with erectors/fabricators that have a good history with the owner/ construction manager. Special Inspections of uncertified fabricator's shop shall be in accordance with Section 1705 of the International Building Code.
NOTE: same question as Q70
- Q36. The pool spec 131100-1-5 says pneumatically applied shotcrete pool shells is acceptable. The structural pool drawings are detailed on S-304 which display Cast In Place pool shell. The vertical rebar spacing will not support a shotcrete pool wall. Please confirm what method of concrete pool construction is acceptable. CIP will be much more expensive vs. shotcrete.
- A36. Please omit the mention of pneumatically applied concrete in the pool specification. The pool shall be a Cast-In-Place pool shell as detailed on sheet S-304.

Q37. In Specification Section 051200 Part 1.5B-1 and 2, there is a section referring to LEED Submittals. Is this a LEED project and are there LEED specifications? Please confirm.

A37. No. This is not a LEED project. No LEED specifications required.

Q38. Specification Section 012100 Allowances Part 3.1-C. What is Allowance No.3 considered a Lump Sum or Contingency?

A38. Allowance No. 3 shall be considered a Lump Sum Allowance.

Q39. ***INTENTIONALLY LEFT BLANK***

A39. ***INTENTIONALLY LEFT BLANK***

Q40. ***INTENTIONALLY LEFT BLANK***

A40. ***INTENTIONALLY LEFT BLANK***

Q41. ***INTENTIONALLY LEFT BLANK***

A41. ***INTENTIONALLY LEFT BLANK***

Q42. Please provide layout and bonding/grounding requirements for pools. Additionally, Section 260526 Grounding and Bonding for Electrical Systems Part 1.2A1 Summary states Raised Floor Systems. Where is the Raised Floor System located and please forward specification for the raised floor.

A42. Revised plans and grounding schematic diagram are included with this addendum to identify pool metal components requiring electrical bonding in accordance with NEC 680, as noted in corresponding drawing plan note no. 15. Raised floor system is not used on this project.

Q43. Electrical drawing E-001, Electrical Project General Notes #41. Unless otherwise directed on the plans no conduit shall be run embedded in any floor or run in contact with the earth.

- Is this statement correct?

A43. Panel feeders will be permitted to be installed under the building slab as per A3 above. Embedded in slab will also be allowed for panel feeders only in accordance with section 260533, 3.2, L. For all other locations, statement is correct.

- Q44. Specification 283111 Digital, Addressable Fire Alarm System, 2.4 Manufactures.
- Will other fire alarm manufactures be acceptable beside Simplex?
 - If yes can you provide a list of acceptable fire alarm manufacturers?
- A44. Acceptable manufacturers are not limited to Simplex, as indicated in the referred specification section. Any manufacturer compliant with the specified requirements in the documents, including but not limited to, FM Global-placarded, UL 864, shall be acceptable.
- Q45. Electrical drawing E-405 Fire Alarm Riser Diagram. Note F Fire Alarm Speakers Shall Provide Voice Communication.
- Would it be safe to assume that the Fire Alarm system should be a voice evacuation system?
- A45. System is to be a voice evacuation system as required by the IBC 2015 NJ Edition section 907.2.1 for Group A occupancies, and with the approval of the township fire official.
- Q46. Electrical drawing E-001, Fire Alarm note #1 and #2.
- Are the fire alarm drawings complete or is the fire alarm to be a design/build?
- A46. As per notes, the fire alarm drawings illustrate the general basis-of-design intent for the purpose of receiving a design/build fire alarm system proposal from the bidding contractor.
- Q47. Installation of Fire-ALarm Wiring 260519-5 3.4 Wiring method: Install wiring in metal pathway according to NIC and as indicated on drawings
- Will Fire Alarm MC cable be acceptable?
- A47. Fire Alarm MC cable will be allowed concealed in interior ceilings, provided cable is listed for NFPA 70, Article 760 fire alarm system applications. All exposed wiring shall be in metallic conduit.
- Q48. Specification 280513-2 Conductors and Cables for Electronic safety and security. 2.3 B.1. Signaling Line Circuits.
- Will the fire alarm cable be required to be 2 hour rated CI cable.?
 - Will this be required to be installed in conduit?
- A48. Signaling Line Circuits shall be 2 hour rated CI cable. Cable shall be required in conduit to prevent from physical damage, as specified.

- Q49. Specification Motor Controllers 262913.03
- Will the mechanical contractor be responsible to furnish motor controllers and not the Electrical Contractor?
- A49. Mechanical contractor to provide controllers as indicated in documents, in accordance with the specification section.
- Q50. Electrical drawing E-200.1 Cable and Conduit notes #1, #2, #3, #4 and #5, .
- Are all of these conduits required to be concrete encased?
- A50. Conduit under concrete base and pavers are not required to be concrete encased. Concrete-encased underground conduit shall be provided under unpaved or asphalt. Refer to details in drawing E-601.
- Q51. Would it be safe to assume that the electrical contractor is not responsible to furnish and install telephone/data and CATV wiring and devices and the EC is only responsible for conduits and boxes.
- If the Electrical contractor is responsible for telephone/data and CATV wiring and devices can you provide specification?
- A51. Electrical contractor is only responsible for conduits and boxes as depicted on documents.
- Q52. Electrical drawing E-605 Typical detail door access and security equipment detail notes 1 and 2.
- Would it be safe to assume that the Electrical contractor would only be responsible for boxes, conduits and pull strings?
 - What size conduit if any would be required to go from doors to the security closet.?
 - Where is the security closet located?
- A52. Electrical contractor is only responsible for boxes, conduits and draglines. Conduit shall be 1" diameter size, routed to the Telecom Room 120 from each door location.
- Q53. Electrical drawing E-201A Multipurpose room 156 indicates that there are 4 floor boxes with a single tamper resistant receptacle and a keyed note #3. Keyed note #3 states that there should be a 2 gang recessed floor box for power and data. There is also a cable and conduit note #1 that indicates power and tele/data.
- Would it be safe to assume that these (4) floor boxes should be single gang and that there are no provisions for tele/data?
- A53. Multipurpose room recessed floor boxes are for convenience use. No tele/data required.

- Q54. Electrical drawing E-404 grounding.
- Will a ground ring electrode be required?
- A54. Ground ring electrode is required. Refer to drawing E-404 for ground ring electrode requirements as well as overall system grounding requirements.
- Q55. Specification 263213.16 makes reference to NFPA 110, Level 1, Type 10.
- Is this required?
 - Do they want both generators to come online, synchronize and then parallel to the buss in under 10 seconds?
 - Which manufacturer for a 1000 kw gas engine are guaranteed to meet NFPA 110, Level 1, Type 10 for 2 generators to parallel and synchronize?
- A55. NFPA 110, Level 1, Type 10 is required. One generator is required to come online under 10 seconds. Refer to Addendum 2 for load shedding scheme updates and revised Specification 263213.16 for updated sequence of operation.
- Q56. There is an issue with the design unless they are running N+1 on the generators and by looking at the FLA of the service entrance breaker setting that is not the case. They won't get both machines online in the 10sec. time requirement as well as the ATS will transfer over after the first machine hits the common bus more than likely overload the 1MW machine. Please advise.
- A56. Load shed breakers are being provided to selected breakers via remote motor operators. Refer to Addendum no. 2 electrical drawings and updated specification 263213.16 being released with these responses.
- Q57. Specification Section 263213 Section 2.3.I.3 – Transient Voltage Performance – This section requires at a 50% step-load increase that there is no more than a 10% variation and a recovery time of 0.5 seconds to steady state operating voltage. The published data for this Generator machine specified is stated at a 25% Voltage Deviation and recovery time of 6 seconds.
- Is this acceptable to the engineer for the project?
- A57. 25% Voltage deviation and recovery time of 6 seconds are acceptable. Engine-set basis-of-design meets building load requisite. Building load does not involve sensitive electronic equipment or significant nonlinear load elements.
- Q58. Specification Section 263213 Section 2.3.I.4 – Steady State Frequency is specified at plus or Minus .25% of rated frequency. The published data for the steady state for this gen set is +/- 2.5%.
- Is this acceptable to the engineer?
- A58. +/- 2.5% steady-state frequency deviation is acceptable. Engine-set basis-of-design meets building load requisite. Building load does not involve sensitive electronic equipment or significant nonlinear load elements.

- Q59. Specification Section 263213 Section 2.3.I.6 – Transient Frequency Performance – The specification is requiring less than 2Hz variation for a 50% step load increase or decrease. The Gen published data for this engine is +2%/-12% (1.2Hz/7.2hz).
- Is this acceptable to the engineer?
- A59. +2%/-12% (1.2Hz/7.2hz) transient frequency deviation is acceptable. Engine-set basis-of-design meets building load requisite. Building load does not involve sensitive electronic equipment or significant nonlinear load elements.
- Q60. Specification Section 263213 Section 2.3.I.10 - Start time: The system is designed with (2) generators being paralleled to a common bus bar that collectively feeds the emergency side of the automatic transfer switch. The life safety start time requirement is 10 seconds from outage to supplying load to the output terminal of the transfer switch. There appears to be some questions as to the ability of the system to meet the NFPA 110 10 second requirement: There is no load shedding specified for the proposed system (the controller specified has the capabilities but none is shown on the drawings or specified). Should one of the generators fail to start or be out of service for maintenance it does not appear that a single engine generator rated at 1MW can carry the load.
- Can you confirm that a single engine generator will carry the proposed life safety load as well as the remaining building load?
- A60. A single engine generator will be allowed to carry the require life safety load, should one be not operational. Load shed breakers are being provided to selected breakers via remote motor operators. Refer to Addendum no. 2 electrical drawings being released with these responses.
- Q61. When the ATS senses that there is rated voltage and speed from the first generator to close to the common bus the ATS will transfer over with only one engine generator on the bus.
- Will one generator carry the required loads?
 - Does the ATS transfer need to be inhibited until the second generator is on the bus?
- A61. ATS shall transfer upon notification from the Master Paralleling Generator Controller (MPGC-1). MPGC-1 needs to be capable of inhibiting the transfer of the ATS as required. Refer to updated specification 263213.16 for sequence of operation.
- Q62. If 2 generators are required to carry the load the system will not meet the 10 second life safety requirement. To parallel 2 generators onto a common bus will require more than 10 seconds.
- Can the life safety loads be segregated from the total building loads to ensure NFPA 110 compliance?
- A62. 2 generators will not be required to carry the full building load to meet the 10 second requirement. Refer to Addendum no. 2 electrical drawings as well as updated specification 263213.16 being released with these responses.

- Q63. Specification Section 263213 Section 2.8.I.2 Voltage Regulation – Specification states that at one step, full load the generator set shall maintain voltage within 15%. The Gen published data sheet voltage deviation at a 100% load step the voltage deviation is +1%/-53% and a recovery time period of 11 seconds. This is outside of the specified performance window by a wide margin.
- Is this acceptable to the engineer?
- A63. Voltage drop is permissible to maintain safety loads. Engine published data as shown meets transient performance as defined by ISO 8528 - 5 with exceptions.
- Q64. Specification Section 263213 Section 2.8.I.4 Frequency Regulation – Maintain frequency within 10%. The Caterpillar published data sheet above 40% load step has a frequency deviation ranging between 12-22% and a recovery time ranging between 5-11 seconds. This is outside of the specified limits of 10% and 5 seconds.
- Is this acceptable to the engineer?
- A64. The indicated published data frequency deviations are for the 100% load step. Frequency drop is permissible to maintain safety loads. Engine published data as shown meets transient performance as defined by ISO 8528 - 5 with exceptions.
- Q65. Will the OWNER/Engineer accept other natural gas engine generator manufacturers that will provide an equal alternative and provide a competitive bid process?
- A65. The Owner would consider alternate natural gas engine generators as a substitution if all aspects of the alternate meet the bid design criteria and specifications. Substitutions shall be considered after the bid is awarded and the contractor shall be prepared to provide a fully designed system for consideration by the Engineer. After review of the submittal, ATI will advise if the substitution is accepted or rejected.
- Q66. Please confirm MTL-2, 24" x 24" x 1/4" Metalworks Mesh Linear Channel Panel by Armstrong, listed in Finish Schedule A703 is not required on this project.
- A66. Bleacher 158A to receive MTL-2 in lieu of MTL-1. Revised A.601 will be issued.
- Q67. There are specifications for Fire Protection Cabinets 104413 and Fire Extinguishers 104416, these items are not located on the plans. Please give fire extinguishers and cabinets locations or quantities including mounting and fire rating.
- A67. Revised plan will be issued showing locations of F.E.C. (Fire Extinguisher Cabinets)

Q68. Attached with supporting documentation is our request for Custom Architectural Designs, Inc. Column Covers, Sports Silhouette Images & Linear Exterior Metal Ceilings to be approved equals to the Basis of Design Products.

A68. All “equal” submissions are to be submitted for consideration after award of a contract and during the construction process. All bid submissions shall comply with the bid documents as outlined.

Q69. ***INTENTIONALLY LEFT BLANK***

A69. ***INTENTIONALLY LEFT BLANK***

Q70. Can AISC certification be waived?

A70. Duplicate question. Refer to Question 35 response.

Q71. S2.1 & S3.1 as indicated on S-101 are missing, please advise.

A71. On Drawing S-101, S2.1 should read S.201 and S3.1 should be S.302

Q72. S101 shows the pool filter room and pool shell up against each other. Please provide a detail for this location.

A72. There is a space (2'-8 3/8") in between the two walls. Refer to Dwg. SP.603. This should be Means and Methods and to be coordinated in the field.

END OF ADDENDUM NO. 2