

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES	
		OP-ES	1	47
2. AMENDMENT/MOD NO. 10	3. EFFECTIVE DATE 1/28/10	4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO 98600
NASA Procurement Office, OP-ES John F. Kennedy Space Center Kennedy Space Center, FL 32899	CODE OP-ES	7. ADMINISTERED BY Same as Block 6		CODE OP-ES
8. NAME AND ADDRESS OF CONTRACTOR (No. Street, County, State and ZIP Code)		(9)	9A. AMENDMENT OF SOLICITATION NO NNK09289054R	
		<input checked="" type="checkbox"/>	9B. DATED (SEE ITEM 11) 7/20/09	
		(10)	10A. MOD. OF CONTRACT/ORDER No	
CODE	FACILITY CODE	<input type="checkbox"/>	10B. DATED (SEE ITEM 13)	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS				
The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers IS NOT extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:				
(a) By completing Items 8 and 15, and returning one (1) copy of the amendment;				
(b) By acknowledging receipt of this amendment on each copy of the offer submitted; or				
(c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
12. ACCOUNTING AND APPROPRIATION DATA (if required)				
<i>Financial Management</i>				
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.				
<input type="checkbox"/>	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.			
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).			
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:			
<input type="checkbox"/>	D. OTHER (Specify type of modification and authority)			
IMPORTANT: Contractor (is or is not) required to sign this document and return _____ copies to the issuing office.				
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)				
Construction of Platforms in High Bay 3 of the Vehicle Assembly Building				
See next pages for continuation of Block 14.				
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.				
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER		
15B. CONTRACTOR/OFFEROR		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED
(Signature of person authorized to sign)		(Signature Of Contracting Officer)		
NSN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE		30-105		STANDARD FORM 30 (REV. 10-83) ES Prescribed by GSA FAR (48 CFR) 53.243

SF 30 Continuation Page

The purpose of this amendment is to answer bidder questions, amend the specifications and drawings, and provide reference only use drawing.

Section 1 Question and Answers

1. REFERENCE: General

QUESTION: The contractor proposes to build a temporary bridge over the existing storm drainage area (see attached site utilization plan) and gravel over the "Proposed Path of Vehicle Egress." The contractor would return the storm drainage area and proposed Vehicle Material Egress path to their pre-existing condition upon completion of the project. Please confirm this vehicle material egress path and temporary bridge is acceptable.

ANSWER: *The Government will not approve any specific plan prior to contract award. The contractor will be responsible for obtaining all required site permits associated with proposed site alterations and returning the site to its original condition or better upon completion of construction.*

2. REFERENCE: RFP Form 1442

QUESTION: Please confirm if the contractor is required to immediately proceed with subsequent revisions or if the Contracting Officer will issue formal direction regarding implementation.

ANSWER: *Changes to the solicitation will be made by official notification. After contract award, design changes will include a notification to proceed and negotiate, or a request for the contractor to submit a proposal for the changes.*

3. REFERENCE: Drawing M-004

QUESTION: Specific Note D. The referenced drawing states the final platform elevation may shift plus or minus three (3) feet from what is indicated on the drawings. Please confirm that plus or minus three feet (and not plus or minus three inches?) is correct. Please advise what may cause the platform elevations to shift. This has the potential to impact the other surrounding systems.

ANSWER: *Plus or minus 3 feet is correct. Platform elevations may change plus or minus three feet due to Vehicle design changes. It is the intent of the design to allow for this potential change and to minimize the impact of these elevation changes by use of fittings and spool pieces of tubing/piping as shown in the drawings. Contractor is to verify final platform elevations with the Contracting*

Officer before shop drawing development. Impacts should be verified and accommodated by shop drawings.

4. REFERENCE: Drawing FA-102, FA-600 and FA-602

QUESTION: The referenced drawings show KCCS PLC's. Please indicate who will provide and install these PLC's. If the contractor is to provide or install them, please provide details for the equipment.

ANSWER: *KCCS PLC's are provided by Others. Wiring from the PLC's to the Interface Cabinet (FATC) is by Others. All other work shown on Detail AA Sheet FA-602 is by the Contractor. See Revision B of the Drawings.*

5. REFERENCE: Specification 05 05 23

QUESTION: Part 3.3. Three types of inspection (RT, MT, and PT) are allowed for welds other than Class "A" welds. Does NASA have a required inspection technique for each type of weld (CJP, PJP and fillet)?

ANSWER: *No, NASA does not have a required inspection technique for each type of weld (CJP, PJP and fillet). As indicated in specification 05 05 23, part 3.3, "Perform nondestructive testing by radiographic, magnetic particle, or liquid penetrant methods on welds." These three techniques are acceptable for each type of weld (other than Class "A" welds).*

6. REFERENCE: Specification 05 05 23

QUESTION: Part 3.3. Ultrasonic weld inspection is commonly used on work of this type to determine acceptance of the welds. Is ultrasonic inspection permitted for welds other than Class "A" welds?

ANSWER: *No, ultrasonic weld inspection is not acceptable. As indicated in specification 05 05 23, part 3.3, "Perform nondestructive testing by radiographic, magnetic particle, or liquid penetrant methods on welds." These three techniques are acceptable for each type of weld (other than Class "A" welds). Ultrasonic inspection will not be permitted.*

7. REFERENCE: Specification 05 05 23

QUESTION: Part 3.3. Is radiographic inspection of Class "A" fillet welds required? Fillet welds are not typically inspected using radiographic techniques.

Would magnetic particle inspection in accordance with ASTM E 709 be acceptable as an alternate inspection technique?

ANSWER: *No, magnetic particle inspection is not an acceptable alternate inspection technique. As indicated in specification 05 05 23, part 3.3, "Perform nondestructive radiographic inspection for all Class "A" welds." Radiographic inspection is required.*

8. REFERENCE: Drawing A-301

QUESTION: Platform Contract Drawing Documents 10C00003, drawing A-301 and Platform Contract Specification 10C00005 14 21 13 Electric Traction Elevators paragraph 2.71 Door Panels. Drawings show two speed 5'-0" x 8'-0" existing doors, but specification indicate vertical bi-parting elevator doors. Please confirm if new vertical bi-parting doors are required or if these doors are existing?

ANSWER: *Doors are to be two speed 5'-0" x 8'-0" and existing are to remain. New doors are only required at levels where new elevator platforms are shown. These new doors are to match the two speed existing doors. No vertical bi-parting doors are required.*

9. REFERENCE: Drawing A-301

QUESTION: Platform Contract Drawing Documents 10C00003. Please clarify if the existing door frames are bolted or welded to existing structural steel?

ANSWER: *The existing door frames are bolted in place.*

10. REFERENCE: Drawing A-301

QUESTION: Platform Contract Drawing Documents 10C00003. Please clarify if the existing elevator door sills are bolted, welded and grouted?

ANSWER: *The existing elevator door sills are grouted and bolted in place.*

11. REFERENCE: Drawing A-301

QUESTION: Platform Contract Drawing Documents 10C00003. Please confirm standing two line rail is required at the egress stairs?

ANSWER: *Yes, two rails are required as shown on A-301 and A-504*

12. REFERENCE: Drawing A-301

QUESTION: Platform Contract Drawing Documents 10C00003. Please provide attachment details for rail to stringers and details for fastening wall rail?

ANSWER: *Rails are not attached to the walls. All rail attachments are to the stringers as shown on A-401. Attachments of rails to stringers are welded per fabricator's requirements to meet design load requirements. See sheet A-504.*

13. REFERENCE: Drawing A-301

QUESTION: Platform Contract Drawing Documents 10C00003. Please provide information and details regarding handrail material sizes, material type (Steel or Aluminum) and finish?

ANSWER: *Details and material sizes, etc. are provided on sheet A-504. Handrails are steel as indicated on A-504. Finish is as indicated in the specifications Section 05 51 00.00 40 Paragraphs 2.7 and 3.3.*

14. REFERENCE: Drawing E-204

QUESTION: Platform Contract Drawing Documents 10C00003, drawings; E-204 note-F, E-205 note-D, E-206 note-F, E-207 note-F, E-208 note-FE-209 note-C, E-210 note-FE-211 note-F, E-212 note-F, E213 note-F, E-214 note-F, E-215 note-G and E-216 note-F. All show the installation of (2) 2" conduits. Note that drawing E-603 show these conduits to be (2) 2 1/2" conduits. Please clarify the size of conduit?

ANSWER: *Conduits are to be 2-1/2". See correction in Revision A.*

15. REFERENCE: Drawing E-204

QUESTION: Platform Contract Drawing Documents 10C00003, drawings E-204 through E-216 show the routing of conduits outside the hand railed walkways. This will require the use of swing stages and spider chairs to install this conduit and a complete support/strapping system. The work will need to be performed in adherence to NASA Safety fall protection requirements for the considerable height of this location. Please confirm if there is a more accessible location available for installation and maintenance purposes?

ANSWER: *For bid purposes the Contractor shall provide conduits as shown/indicated. Upon award the Contractor may propose alternate routing of the conduits.*

16. REFERENCE: Drawing E-503

QUESTION: Detail C. Please clarify if the platform adjacent data boxes (2ea) are mounted on one common vertical unistrut support or two separate adjacent unistrut supports?

ANSWER: *Provide two separate unistrut supports mounted back to back.*

17. REFERENCE: Drawing E-604

QUESTION: Please clarify the location for Room 1D4?

ANSWER: *See Revision A Sheet E-203.*

18. REFERENCE: Drawing S-001

QUESTION: Please confirm if there are there any other load test requirements for the platforms other than those listed on drawing S-001?

ANSWER: *See Specification Division 41 – Material Processing and Handling Equipment – Mechanisms for the Sliding Platforms section 41-22-20 for additional testing requirements.*

19. REFERENCE: Drawing S-121

QUESTION: Platform Contract Documents 10C00003, drawings S121, S440 section cut JF and S409 Specific Note B. Note B on S409 states "Unless noted RHR all guardrails shall be FHR." Removable rail is only called out at the steel deck insert ends between new fixed platforms and elevator access platforms. Section JF is cut on S121 where the sliding platform and the fixed platform meet. Section JF on S440 calls out a steel guardrail socket to receive removable handrail. Please clarify if the guardrail (where the sliding platform meets the fixed platform) is fixed or removable? Please clarify in plan view, the sections of guardrail that are removable or fixed?

ANSWER: *"RHR" is shown at several places on sheet S-409 not just by the elevator access platforms. Details JF and JH on sheet S-440 are for the purpose of stiffening the floor deck that needs to cantilever over the main sliding and fixed platform beams in those areas. Those details do not specify whether guardrails are fixed or removable. Most of the guardrail on the new platforms (fixed and sliding) whether it is fixed or removable is aluminum unless indicated otherwise. See sheet S-409 specific note D. The aluminum guardrails require steel sockets whether they are removable or not.*

20. REFERENCE: Drawing S-121

QUESTION: Please clarify in plan view, the sections of guardrail that are removable or fixed?

ANSWER: *Sheets S-409 to S-414 and S-418 to S-420 are layout plans specifically for the guardrails and indicate removable and fixed guardrail locations.*

21. REFERENCE: Drawing S-417

QUESTION: Please provide details and member sizes for the framing members below the platform (i.e. as indicated in isometric)?

ANSWER: *The framing sizes for the drop down below the elevator access platform are indicated on sheet S-508.*

22. REFERENCE: Drawing S-501

QUESTION: Please provide connection details for fixed Aluminum guardrail to sliding and fixed platforms?

ANSWER: *The details are the same for the sliding platforms and the fixed platforms. See the top of sheet S-501 Zones H and G for connections. Guardrail on the new platforms whether it is fixed or removable is aluminum unless indicated otherwise. See sheet S-409 specific note D. The aluminum guardrails require steel sockets whether they are removable or not.*

23. REFERENCE: Drawing S-504

QUESTION: Section DB. Please confirm if the section of this guardrail is steel or aluminum?

ANSWER: *This guardrail is aluminum. See sheet S-414 specific note F.*

24. REFERENCE: Drawing S-504

QUESTION: Section DA. Platform Contract Documents 10C00003, drawings S504 section DA. The note in section DA states "Required for platform levels Las-Aux, C, E and H through K. At all other platforms attach festooning track to platform structure above." Please provide a section cut and connection details for direct attachment of Festooning track to platform structure?

ANSWER: *The festooning track installation details are indicated on sheet E-502.*

25. REFERENCE: Drawing S-504

QUESTION: Section DB. Please confirm if the Guardrail shown in section DB is fixed or removable?

ANSWER: *The guardrail between the vertical tube steel is fixed aluminum. See sheet S-414.*

26. REFERENCE: Drawing S-521

QUESTION: *Details WD, WE and WF. Please confirm if this notation is defined as the end beam is to have a 100% bearing condition at each splice?*

ANSWER: *Yes, beam ends are to be finished to provide 100% bearing at each splice.*

27. REFERENCE: Drawing SD-101

QUESTION: Flag Note H. Please confirm who is to make the determination if the motor support truss is to be reinstalled, or the location as to where it will be reinstalled?

ANSWER: *The existing truss is shown to indicate items in the vicinity of the new work to assist the contractor in developing a "New Platform and Associated Work Installation Plan" (See sheet S-002). The contractor is to determine whether or not the truss needs to be removed to facilitate other work in the area. Any existing structure that is removed shall be reinstalled. See also sheet S-001 "General Notes: Structural" Note 16.*

28. REFERENCE: Drawing SD-102

QUESTION: Flag note E. Platform Contract Documents 10C00003, drawing SD-102 Flag note E. Flag note E states contractor to provide lifting equipment and to remove existing un-maintained equipment at existing hoisting location Elevation 449' 7". The note also indicates "see DWG 203-100 sheet 27-56 Please clarify if the reference 203-100 sheet 27-56 is applicable?"

ANSWER: *Yes, reference to Drawing 203-100, sheet 27-56 is applicable. Drawing 203-100 volume 27 is indicated as a reference drawing package on sheet V-001. Drawing 203-100 volume 27 sheet 27-56 depicts the method for the existing elevator access platform vertical placement used in the past.*

29. REFERENCE: Drawing SD-102

QUESTION: Flag note E. Please provide referenced information and clarify if these drawings are part of the Contract Documents?

ANSWER: *Drawing 203-100, sheet 27-56 is attached to this amendment. This drawing does not depict new work or materials to be provided under this contract. The reference drawing packages are indicated on sheet V-001. Contact the contracting officer for reference drawing packages.*

30. REFERENCE: Drawing SD-102

QUESTION: Flag note E. Please clarify the lifting equipment required to be provided?

ANSWER: *No lifting equipment is required by this note. The contractor may remove existing lifting equipment at elevation 449'-7" to the extent necessary to install his own temporary construction lifting equipment. This will be determined by the means and methods of the Contractor and as approved by the Lifting Plan.*

31. REFERENCE: Drawing SD-102

QUESTION: Flag note E. Please provide a list of un-maintained equipment with accompanying sizes and weights of equipment to be removed?

ANSWER: *See referenced drawings 203-100 Volume 27 sheet 27-56 for details and sheet 27-63 for a schedule of equipment. These drawings were issued in Amendment 7.*

32. REFERENCE: Drawing SD-102

QUESTION: Flag note E. Please confirm if there is other equipment to be removed (i.e. existing boom for jib crane as indicated in note F)?

ANSWER: *Sheets S-003 to S-005 and SD-101 to SD-105 indicate items in the vicinity of the new work to assist the contractor in developing an installation plan. The contractor is to determine whether or not items need to be removed and reinstalled based on the contractors own means and methods for performing the new work. See also sheet S-001 "General Notes: Structural" Note 16.*

33. REFERENCE: Drawing SD-102

QUESTION: Flag note C. Platform Contract Documents 10C00003, drawing SD-102 Flag Note C. Flag note C states "See extensible platforms demolition package for demolition of catwalks from elevator platforms to VAB." The platform demolition drawings S-601, S-602 and S-603. Drawing S-603 does not

reference any specific demolition at this area. Please confirm if the demolition of the platform material in this area is to be included under this scope of work?

ANSWER: *Drawing 10C00003 sheets S-600 to S-604 are for information only and are not demolition drawings. They provide a concept for future Removal, Reinstallation and Vertical Adjustment of the new VAB platforms in case NASA program changes require vertical relocations or removal and reinstallation of the new platforms after their initial installation and are included for reference only. Drawings S-600 to S-604 depict information such as why deck joints and steel splices have been indicated at various locations on the new platforms to be provided in Drawing 10C00003 etc. The "Removal and Disposal of Extensible Platforms" drawing number is 10C00011 and is indicated as a reference on sheet V-001. Drawing 10C00011 is for the removal of the existing extensible platforms in the VAB along with the catwalks indicated on note C.*

34. REFERENCE: Drawing SD-104

QUESTION: Flag note J states to remove the existing catwalk. Please provide additional information regarding size and weight of existing catwalk?

ANSWER: *The catwalk indicated is a remnant of a type 8 catwalk. Drawing 203-28- 297 Sheet 5-36 is attached to this amendment. The catwalk is about 16' long and 3'-6' wide.*

35. REFERENCE: Drawing SD-104

QUESTION: Please confirm if the contractor is required to dispose of catwalk or is it to be turned over to the owner?

ANSWER: *The catwalk is to be disposed of in accordance with the contract documents.*

36. REFERENCE: Drawing S-101, A-101, A-401.1 and A-501

QUESTION: Platform Contract Documents 10C00003, drawings S101, A101, A401.1 and A501. The new access stairs to be installed reference sheet A501 for typical details and general requirements. The note #1/A-501 states the stair assemblies are "to resist loads indicated on the structural drawings." The contract drawings provide no load requirements. Specification section 05 51 00 section 2.6.5.1 provides design loads. Please confirm if the basis of design should be based on these load requirements?

ANSWER: *For load requirements see sheet S-001 "Structural Design Criteria" Notes 3.d and 3.e. and specification section 05 51 00 section 1.6.*

37. REFERENCE: Drawing S-502, S-415

QUESTION: Platform Contract drawing Documents 10C00003, drawings S502, S415 and flag note E on S106. The steel deck insert details shown on S502 depict the new removable deck bearing on the existing W10x21 beams of the existing relocated elevator platforms. The note on S415 states "to remove strip of existing deck to center of 10WF." It appears from the details on S502 that once the deck is cut, the P3000 unistrut is installed into the existing deck flutes and is attached similar to the deck details on S501. Please confirm if this occurs at every low part of the corrugation profile in the metal decking? Please clarify how the existing decking fastened? Please confirm if we are required to remove the existing fasteners?

ANSWER: *The unistrut is located along with the socket head cap screws at 12" oc, (every other corrugation.) A new light gage edge angle is to be connected to the existing deck to stiffen the edge of deck as indicated in the same note on sheet S-415. The existing deck is welded to the steel framing. Grinding of the existing welds if protruding above the support beam flange may be required.*

38. REFERENCE: Drawing SD-101 through SD-105 and S-101 through S-111

QUESTION: Please confirm the elevator access platforms to be relocated are as follows Tower E: 78' 0" to 220' 0 1/2", 110' 0 1/2" to 236' 7 1/2", 124' 7" to 305' 0 1/2", 167' 0" to 325' 7 1/2", 233' 0" to 343' 1 1/2" Tower F: 78' 0" to 95' 10 1/2", 124' 7" to 220' 0 1/2", 167' 0" to 305' 0 1/2", 233' 0" to 325' 7 1/2"

ANSWER: *Per Revision A there are 5 elevator platforms to be relocated to following locations in Tower E: Platform A Elevation 342' 10-1/2"; Platform B Elevation 324' 11-1/2"; Platform C Elevation 304'-11"; Platform E Elevation 235' 6"; Platform F Elevation 220' 0-1/2". Per Revision A there are 4 elevator platforms to be relocated to following locations in Tower F: Platform B Elevation 324' 11-1/2"; Platform C Elevation 304'-11"; Platform F Elevation 220' 0-1/2"; Platform K Elevation 96' 4". See sheet A-301. The contractor is to determine which existing elevator platform should be placed in the new locations above based on the contractor's own installation means and methods.*

39. REFERENCE: General

QUESTION: Platform Contract Drawing Documents 10C00003, existing platforms. The existing platforms in their fully retracted position do not allow access to the existing junction boxes. Swing stages and spider chairs will be required to access all interface junction boxes (i.e. crane e-stop, spare, fire alarm, emergency power, emergency lighting, and power interface). The work will need to be performed in adherence to NASA Safety fall protection

requirements for the considerable height of this location. Please confirm if there is a more accessible location available for installation and maintenance purposes?

ANSWER: The existing extensible platforms will be removed by Others prior to commencement of the work under this contract. New work to connect to the existing interface junction boxes is required by this Contractor. Provide raceways and cabling as indicated on drawings. Work shall be in compliance with NASA and OSHA safety standards. Upon award the Contractor may propose alternate locations.

40. REFERENCE: Specification 05 51 00

QUESTION: Specification section 05 51 00 paragraph 2.7 states to "provide stairs and railing of galvanized in accordance with ASTM A123/A123M". Paragraph 2.7 also states, "finish metal stairs after assembly. See section 09 97 13.00 40 steel coatings for primer and 09 90 00 Paints and Coatings for additional finishes". Paragraph 2.5 denotes steel sheet hot dip galvanized. Please clarify if the stairs and assemblies are painted or galvanized?

ANSWER: Stair railings are to be painted steel and not galvanized. Paragraph 2.7 is revised to read: Finish metal stairs after assembly. See Section 09 97 13.00 40 for Primer and 09 90 00 for Additional Finishes. Fill vent and drain holes that will be exposed in finished Work, unless designed to remain as weep holes, by plugging with zinc solder and filing off smooth.

41. REFERENCE: Specification 14 21 13

QUESTION: Platform Contract Specification 10C00005; 14 21 13 Electric Traction Elevators paragraphs 2.1.2, 2.71, and 2.73 which indicate prime painted entrance frames and panels but also indicate match existing finishes. Please confirm the finish of the existing frames and doors (i.e. painted with aluminum sills or stainless steel with nickel silver sills)?

ANSWER: The frames are painted steel with aluminum sills.

42. REFERENCE: Drawing S-001

QUESTION: Does the term "Faying Surface" include all of the following: Surfaces in Slip Critical connections (i.e. bracing, etc.)?, Surfaces in connections where bolts are in bearing (i.e. beam to beam, beam to column, etc.)?, Surfaces between bearing members (i.e. column base plate to top of beam, column cap plate to bottom of beam, etc.)?, Surfaces between tension members (i.e. hanger base plate to top of beam, hanger cap plate to bottom of beam, etc.)?

ANSWER: *All of the connection types listed in the question are included in the term "Faying Surface." Structural note 22 on S-001 concerns sealing around the laps of joints to avoid the collection of dirt and moisture that could lead to corrosion or contamination. The faying and bearing surfaces in general are all bolted structural steel to steel joints.*

43. REFERENCE: Specification 14 21 13

QUESTION: The referenced specification (parts 1.3.a and 1.3.g) states the Government shall modify the PLC system... and shall provide all I/O devices and hall signal lanterns. What is the Contractor's responsibility regarding the testing of the elevators per part 3.2 of referenced specification? Is the Government responsible for all elevator testing since the Government is handling the controls portion of the elevators?

ANSWER: *The Contractor is responsible to test and validate the wiring and devices he installs prior to the Government performing the final connections and testing the elevators. The Contractor is to provide the new hall signal lanterns and call buttons where required by the contract drawings. The Government will provide the final connections to the hall lanterns as well as to the I/O devices used to interface with the existing control system. The I/O devices to be provided by the Government are those required to interface the hall signal lanterns and call buttons to the existing elevator controls. Paragraph 1.3 g. is clarified to read:*

"The Government shall provide all I/O interface devices. Final connections to I/O interface devices and the Contractor provided (furnished and installed) hall signal lanterns will be by the Government."

44. REFERENCE: Specification 14 21 13

QUESTION: Item 1.4.1 page 284-285. In this section, it states that the contractor shall provide warranty for equipment that he provides, yet paragraph 1.5 implies that it is the intent for the contractor to take over service work from United Space Alliance for the entire elevator system for the period of one year. Is this the intent?

ANSWER: *No. Paragraph 1.5 applies only to the new equipment being provided by the Contractor. The elevators will not be turned over to the Contractor. The Government will be responsible for the operation and service of the elevators at all times.*

45. REFERENCE: Specification 14 21 13

QUESTION: Item 3.2 page 288. It states that all costs and expenses incurred if re-testing is required shall be borne by the contractor, yet the government is performing all I/O terminations and programming, can this be changed to state if the deficiency is due to the contractors work?

ANSWER: *That is the intent of this paragraph. If the Contractor's work is the reason that the re-testing is required, then the Contractor will be responsible for all costs and expenses incurred as stated in specification section 14 21 13 paragraph 3.2.*

46. REFERENCE: Drawing E-001

QUESTION: The schedule does not have any provision for fixtures that will be installed in the Class 1 Division 2 rated area. Please clarify if there should be additional fixtures listed for the Class 1 Division 2 rated area? If so please provide the requirements on a revised schedule and a Floor Plan that will show the effected Fixtures.

ANSWER: *The design, as shown, does not require any rated fixtures.*

47. REFERENCE: Drawing E-202

QUESTION: Specific Note C. Please confirm that all Communication system racks are Government Furnished as they are not listed in the RFP Documents under J.I.C.8?

ANSWER: *All communication system racks located in Room 3E8 are Government Furnished, Government Installed (GFGI). This equipment is not included in Section J.I.C.8 because it is Government installed. See drawing plans and risers for other cabinets to be provided and installed by this Contractor.*

48. REFERENCE: Drawing E-204

QUESTION: Specific Note K. Please confirm how the cable tray is routed through truss C as the structural drawings indicate the cable tray mounting on the outside of truss C platform structure? Please provide details.

ANSWER: *Cable tray does not pass through truss C. It is mounted to the back of it in accordance with detail AF on sheet E-502.*

49. REFERENCE: Drawing E-204

QUESTION: Specific Note K. Please confirm how the cable tray will be supported as it passes truss C and slopes upward to towards panel XKS3LA? Please note that this occurs at all platforms.

ANSWER: *Provide steel supports mounted to the platform steel in areas where the cable trays slope up. The cable tray will sit on the platform steel framing as it extends over to the platform deck. Additional steel supports will be required by the Contractor to properly support the cable tray over its entire length. Coordinate the supports with the structural steel.*

50. REFERENCE: Drawing E-212A

QUESTION: The Revision A drawing added this sheet which shows 2 speakers. The Paging & Area Warning riser does not show these speaker devices. Please confirm if these speakers are required?

ANSWER: *Yes the speakers are required on platform E maintenance level. Drawing E-604 is revised to add these speakers to the Platform E maintenance level in this amendment.*

51. REFERENCE: Drawing E-601

QUESTION: The specific note C states that all panels in the towers are existing. Panels 10FPB2, 10EPB, 3EPB2, 3EPA, 3EEA, 16EEB, 16FEB2 are shown on the towers. Please confirm that these Panels are new and are contractor provided?

ANSWER: *Yes the panels listed above are new and to be provided by the Contractor. The Panelboard Schedules correctly indicate which panels are existing or new. Specific Note C on E-600 and E-601 should be corrected to read as follows: "ALL PANELBOARDS SHOWN IN TOWERS E AND F ARE EXISTING, UNLESS OTHERWISE NOTED (UON). ALL PANELBOARDS SHOWN ON THE PLATFORMS ARE NEW."*

52. REFERENCE: Drawing ED-104

QUESTION: SN D states to remove a Crane E-stop Interface junction box on Tower F. Please confirm if the junction boxes to the East and West of the crane E-stop are required to be removed?

ANSWER: *Reference Drawing ED-104, drawing set 10C00007. Yes, the technical ground and spare interface junction boxes located adjacent to the Crane E-Stop interface junction box are to be removed to provide clearance for the life safety tower.*

53. REFERENCE: Drawing EH-802

QUESTION: Please provide a Floor Plan for all levels that will show the electrical equipment that will be effected by the rated area?

ANSWER: EH-801 and EH-802 are provided for this purpose.

54. REFERENCE: Drawing S-112

QUESTION: There appears to be two 6" pipes which penetrate the existing siding and weld to an existing truss column along grid lines 27, 28, and J and are welded to the new tube steel stub columns. Please confirm if abatement is required at these areas?

ANSWER: *Yes, due to the age of the structure, the existing structural steel has had hazardous coatings applied so abatement for hot work will be required as indicated by Note 2 under "General Notes: Coatings, Containing Hazardous Constituents" on Drawing ENV-001.*

55. REFERENCE: Drawing S-112

QUESTION: Please clarify the size of the existing truss columns that the pipe frames into?

ANSWER: *The framing sizes for the VAB Low Bay are shown in drawing 203-28,297 Volume 6. Truss 2 is on gridlines 27 and 28 and shown on sheet 6-54. According to sheet 6-54: The vertical steel truss column at J-27 and J-28 is a 12WF40. The vertical steel truss column K-28 is a 12WF65.*

56. REFERENCE: Drawing S-112

QUESTION: Please confirm if the material is to be galvanized?

ANSWER: *No. Clean and paint the exposed carbon steel with inorganic zinc primer in accordance with specification 09 97 13.00 40.*

57. REFERENCE: Drawing S-112

QUESTION: Please confirm if access is available from inside the building or is all work to be performed from the building exterior?

ANSWER: *There are no interior walls that will prevent access from the inside, but there are no existing interior walking surfaces in this area. The means and methods of installation are up to the contractor.*

58. REFERENCE: Drawing S-121

QUESTION: Section cuts PA & PB on S513 are cut looking at grid line D7. Please confirm if these same section cuts apply also at D5, H5 and H7?

ANSWER: Yes they do. See sheet S-513 notes in zones B7 and B8.

59. REFERENCE: Drawing S-502

QUESTION: Detail titled "new steel deck insert between new fixed platform and elevator access platform." This detail includes a note which states "L4x3x1/4 LLV continuous with vert long slotted hole and L3x3 butt weld 1/4x4"x6" to vertical leg to line up with L3X3. Note that the detail does not graphically portray the 1/4"x4"x6" plate. Please confirm if it is possible to provide a detail which indicates how this plate interfaces with the two angles?

ANSWER: *The note on S502: "L4x3x1/4 LLV CONTINUOUS W/ VERTICAL LONG SLOTTED HOLE @ L3X3 BUTT WELD PL1/4x4x0'-6" TO VERT LEG TO LINE UP WITH L3X3" Shall be changed to: "L4x3x1/4 LLV CONTINUOUS W/ VERTICAL LONG SLOTTED HOLE."*

60. REFERENCE: Drawing S-504

QUESTION: Please confirm the light support post details only occur on platforms E and LAS-AUX?

ANSWER: *That is correct. Light support posts are required at E Maintenance and LAS-AUX platforms due to lack of platforms above to attach lights to.*

61. REFERENCE: Drawing S-512

QUESTION: Please confirm if handles are required in the flip plates for lifting as none are shown in contract drawings?

ANSWER: *Handles are not required.*

62. REFERENCE: Drawing E-210, E-212, E-213, and E-216 Crossovers

QUESTION: Please confirm if the Crossovers have sections that retract and confirm if the retraction is by manual means or electrical mechanisms? Please clarify the intent of the design?

ANSWER: *Crossovers have a hinged section with an electric actuator with a manual option. See Structural drawing S-421 and S-425 and Electrical floor plans (E-210, E-212, E-213 and E-216). Drawing notes on floor plans show the power connection for a motorized flip down section on the crossover. Coordinate with requirements on S-421.*

63. REFERENCE: Drawing E-600 and E-601

QUESTION: The single line drawing indicates (22) 10kVA transformers. The Power System Plans do not show the location of the transformers. Please clarify the locations of the transformers and provide mounting details?

ANSWER: *These transformers are integral with the panelboard. As indicated in the panelboard schedules for the panels being fed by the 10KVA transformers, these are based on SQ-D mini-power zone all-in-one units.*

64. REFERENCE: Drawing E-620 through E-638

QUESTION: The Panel Schedules do not show any requirements for Class 1 Division 2 rated panels. Please confirm if some of the Panels have to be rated for Class 1 Division 2? If so please provide the specification requirements and a Floor Plan that will show which panels will be affected by the Class 1 Division 2 rated areas.

ANSWER: *The design as shown does not require any rated panels if installed where shown in the design.*

65. REFERENCE: Drawing E-620 through E-638

QUESTION: The panel schedule lists the new panels to be manufactured by SQ-D. Will approved equals be accepted?

ANSWER: *Yes. SQ-D is the basis of design. Contractor may submit other manufacturer's panels as long as they meet the specifications and requirements.*

66. REFERENCE: Drawing E-620 through E-638

QUESTION: Panel Schedule. Please confirm if an approved equal to Square D will be acceptable for the new panels?

ANSWER: *Yes. SQ-D is the basis of design. Contractor may submit other manufacturer's panels as long as they meet the specifications and requirements.*

67. REFERENCE: Drawings S-105, S-421 and S-425

QUESTION: Flag note K on S105 notes "Cross over to ML, see sheet S421." This platform appears to be supported on D Line at platform G per detail HT on S425 and along B line per detail CG on S421. It appears from details HF and HZ that the flip portion of the platform is to meet up with the ML (Mobile Launcher) structure when in flipped down position. Please confirm if the ML (Mobile Launcher) structure will be in place inside the VAB at the time the platform is erected to verify fit up?

ANSWER: *No, the Mobile Launcher will not be in the high bay.*

68. REFERENCE: Drawing S-309 and S-509.

QUESTION: Please confirm if there are specific cellular deck details for the launch mount observation platforms (i.e. direction of deck span, closure details)?

ANSWER: *See zone C6 sheet S-334 for the deck span for the launch mount observation platform at the North Platforms E, G and I. All other cellular deck for the entire platform (with the exception of the skewed piece of deck indicated for the launch mount observation platform in Zone C6) is to span in the East-West direction. 16 gage closure plates are to be provided between changes in deck direction as indicated on sheet S-501 "Typical floor deck details" zone D5.*

69. REFERENCE: Drawing S-507 and A-402.

QUESTION: Please confirm the plate denoted as "stiffened ¼" steel plate" for access stair catwalk and floor level 15 is smooth ¼" plate and not checkered or diamond plate?

ANSWER: *The floor plate is smooth, not diamond plate, but is to receive a non-slip coating. See sheets A-104 and A-109.*

70. REFERENCE: General

QUESTION: Please confirm if it is acceptable to utilize the existing gravel crawler road for construction access (i.e. material deliveries, access into the VAB)?

ANSWER: *The crawlerway and crawlerway gate on the eastern side of the VAB shall not be used for routine access through the VA B perimeter fence. The*

contractor shall use the VAB north gate (C gate) and south gate (F gate) for routine access to the VAB. The crawler road can be accessed only after entering the north gate. The portions of the crawler road that can be used include only the area east of High Bay 3 to a maximum distance of 200 feet from the face of the VAB building. The contractor will return the crawler road to its pre-existing condition upon completion of the work.

71. REFERENCE: RFP Attachment J.1.B

QUESTION: Please confirm if the existing asphalt parking that is within the Contractors laydown limits will require resurfacing by the Contractor?

ANSWER: *The asphalt parking area must be restored to its pre-construction condition or better.*

72. REFERENCE: Specification 05 05 23

QUESTION: Paragraph 3.3. Please confirm if radiographic, magnetic particle (MT) or liquid penetrant testing is required on all field welds (i.e. handrails, plates, etc)? Please note that NASA Spec 5004 which is referenced in paragraph 1.1 requires specific weld testing/inspection for each classification of weld (i.e. Class A, B, and C) and is different from the requirements provided in paragraph 3.3.

ANSWER: *Yes, all field welds shall have radiographic, magnetic particle or liquid penetrant testing and shall be included in the Contractor's quality plan. The requirements of NASA Spec 5004 have been interpreted and simplified for incorporation into the Specification 05 05 23.*

73. REFERENCE: Specification 14 21 13 (Electric Traction Elevators)

QUESTION: Part 1.3.a and 1.3.g. The referenced specification states the Government shall modify the PLC system... and shall provide all I/O devices and hall signal lanterns. Please advise when NASA would like to perform this work in relation to the overall schedule. i.e., by the partial beneficial occupancy of July 25, 2011? How much time does NASA need for schedule purposes per elevator?

ANSWER: *The Contractor shall identify in his proposed work schedule his plan to install and modify the elevators. He shall also identify in the work schedule the proposed date when the modification of the controls will be needed in support of his execution plan. For coordination and scheduling purposes, the Contractor shall provide six months advanced notice to the Contracting Officer of the anticipated need date for completion of the modifications to the elevator controls. It is anticipated that it is in the best interest of the Contractor to have the controls modified prior to beneficial occupancy to provide worker access to the new platform*

levels. The Government will endeavor to coordinate the modification so as to not impact the Contractor.

74. REFERENCE: Specification 14 21 13 (Electric Traction Elevators)

QUESTION: Part 1.3.a and 1.3.g. The referenced specification states the Government shall modify the PLC system... and shall provide all I/O devices and hall signal lanterns. Is the Contractor required to provide and install any of the infrastructure (i.e., conduit, pull boxes and cable) required to support these I/O devices and hall signal lanterns? Is the Contractor required to make any connection to these PLC's?

ANSWER: *Yes, the Contractor is required to provide all wire, junction boxes and conduit to connect to the existing system, reference Specification section 14 21 13 Paragraphs 2.5.2 and 3.1.4. All connections to the PLC's will be by the Government. (Final termination of the Contractor's installed I/O and cabling at control panel is by Others).*

75. REFERENCE: Specification 21 13 26.00 40

QUESTION: Specification section 21 13 26.00 40, chapter 1.6 (page 298) and section 21 13 00.00 98, chapter 1.7 (page 298) state that the services of a NICET Level III technician or a Class I contractor shall be provided on site to perform or directly supervise the installation during this project. Please indicate if such person shall be permanently present on site during the entire installation process, or if it will be acceptable for such person to perform frequent system inspections (for example on a weekly basis) in accordance with the Contractor's approved QC plan?

ANSWER: *NICET Level III technician or a Class I contractor shall be on site to perform or directly supervise the installation during the construction of this project.*

76. REFERENCE: Specification 21 13 26.00 40

QUESTION: Chapter 3.10.3. Please confirm that deluge sprinkler system tests can be conducted by discharging the test water through the system sprinklers, in which case the water will be discharged onto the lower structure and the building floor?

ANSWER: *That is not correct. The Contractor is to submit a plan for the disposal of the water discharging from the test outlets to avoid property damage per the Specifications.*

77. REFERENCE: Specification 26 05 73.00

QUESTION: Please confirm if the manufacturer of the electrical equipment can perform the short circuit analysis, protective device settings, and arc-flash analysis or will this require an independent Registered Professional Engineer?

ANSWER: *Comply with specifications. The analyses and settings can be certified by any competent Professional Engineer registered in the State of Florida.*

78. REFERENCE: Specification 26 24 16.00 40

QUESTION: The spec section has no specific information on the requirements for Class 1 Division 2 dry type transformers. Please confirm if the dry type transformers have the Class 1 or Class 2 rating? If so, please provide the requirements and identify affected transformers on the floor plan.

ANSWER: *The design as shown does not require any rated transformers if installed where shown in the design.*

79. REFERENCE: Drawing E-202

QUESTION: Specific Note C and F. Please confirm if the intent of the drawings is to route the conduit from Substation 810 and 808 into the respective Towers Utility Chase and then down to the Transfer Aisle receptacles? Please show intended path on Power & System Plans.

ANSWER: *It is assumed that the referenced drawing is really E-200. The intent is to use the Utility Chases in the Towers for routing all conduit vertically. Drawings showing this routing will not be provided.*

80. REFERENCE: Drawing E-205

QUESTION: Specific Note D. Please confirm if the conduit size should be 2-1/2”

ANSWER: *Yes, conduit size in Note D should be 2-1/2”.*

81. REFERENCE: Drawing E-502

QUESTION: Specific Note E. The specific note states 4-#4 conductors used for phase and neutral. The Generic Festoon Schedule, item #12 calls for FC-42-FR, which is 4-#2 AWG cable. Please clarify which cable and part number is correct?

ANSWER: *The Generic Festoon Schedule with part number FC-42-FR is correct. Wire size in Note E should be 4 #2 conductors.*

82. REFERENCE: Drawing E-502

QUESTION: Generic Festoon Schedule Item #11 FC-TR18 for 5" trolley. This part number is not in the catalog. Please confirm if this is the correct part number?

ANSWER: *The trolley part number was provided by Duct-O-Wire and is correct.*

83. REFERENCE: Drawing E-502 and E-600

QUESTION: E-502 Typical Platform Grounding Detail and E-600 Specific Note H. The typical platform grounding detail states 3/4" conduit and Specific Note states 1/2" conduit. Please confirm if the required conduit size is 1/2" or 3/4?"

ANSWER: *The detail is correct. 3/4" conduit is the minimum permissible size. Note H should be revised to indicate 3/4".*

84. REFERENCE: Drawing E-600

QUESTION: Specific Note G. Please confirm if this note is required as it is not shown on the on the One-line Power Diagram? If required, please indicate location.

ANSWER: *Specific note G on drawing E-600 is shown in zone C-4 at Platform E maintenance level near panel XSE3LA and is typical for each platform level.*

85. REFERENCE: Drawing E-600

QUESTION: Zone F3 and F4. Please verify that 4-#500kcmil, 1-#3gnd is in 3" conduit?

ANSWER: *Referenced drawing should be E-602. It is permissible in accordance with the NEC to install 4-#500kcmil and 1-#3 in a 3" conduit. Contractor may increase conduit size at his option for ease of installation.*

86. REFERENCE: Drawing E-600

QUESTION: Please confirm if the intent of the drawings is to route the conduit from DP 878 and Substation 808 into the Tower Utility Chase and then down to 3rd floor into room 3E8? Please show intended path on Power & System Plans.

ANSWER: *The intent for routing conduit from floor 11 down to floor 3 is to use the Utility Chases in the Towers for routing all conduit vertically. Drawings showing this routing will not be provided.*

87. REFERENCE: Drawing E-603

QUESTION: Zone C4. Please confirm if this cable tray is new? Note that Drawing E-205 at Zone B4 shows this cable tray as existing.

ANSWER: *No the cable tray is not new. The cable tray is existing.*

88. REFERENCE: Drawing S-355A

QUESTION: The W8 columns indicated on S355A do not have connection details at the base of columns. Please provide connection material, sizes and details for these connections.

ANSWER: *Use detail AYA/S-576A. See sheet S-354A for additional connection detail information.*

89. REFERENCE: Drawing S-358A

QUESTION: Truss C4 elevation. The top and bottom chord members of the truss C4 shown on S358A do not have splices located. Please provide splice locations for the top and bottom chord members.

ANSWER: *Truss C4 is not intended to be spliced.*

90. REFERENCE: Drawing S-702

QUESTION: West Elevation between Column Lines 2 and 3. The West elevation has a note at floor level 5 which states "Brace to existing floor framing." This note also occurs at grid line D on drawing S703. Please confirm if this brace is existing or new at these locations. If a new brace is required, please provide size and shape of member?

ANSWER: *The brace is new. See "TYPICAL BRACE TO EXISTING FLOOR FRAMING" detail on sheet S-704 for sizing and connection information.*

91. REFERENCE: Drawing S-702

QUESTION: West Elevation at column line A. Between floor levels 7 and 10, there is a notation for an existing [14WF103] + (2) 5/8"X16-1/2" PL. Please confirm if the 2ea 5/8" plates are existing?

ANSWER: *The plates are not existing. Please see detail SC on sheet S-704 for connection of new plates.*

92. REFERENCE: Drawing S-702

QUESTION: West elevation at column line B. Please confirm if an elevation view or photograph can be provided for this brace to determine the type of

connection required and the type of access necessary for any demolition that may be required to install this brace.

ANSWER: *See "TYPICAL BRACE TO EXISTING FLOOR FRAMING" detail on sheet S-704.*

93. REFERENCE: Drawing E-210 SN M, E-212 SN H, E-213 SN M, and E-316 SN L

QUESTION: The Disconnect size requirements and the Panel Schedules do not match. Please clarify the disconnect and breaker size requirements?

ANSWER: *Electrical circuits indicated in the Panelboard Schedules for the flip downs all indicate 15 Amp circuit breakers. The referenced notes all indicate a 15 Amp disconnect switch except Sheet E-213 Specific Note M indicates 30 Amp which is also correct.*

94. REFERENCE: General

QUESTION: Please clarify if the intent of the drawings is to route the conduit from stated location into the Tower Utility Chase then to the shown locations for the equipment listed below? From PNL 3EEA to CU-63/From PNL 3EEA to PNL 16FEB2/From PNL 3EEA to PNL 16EEB/From PNL 3EPA to CU-62/From IDC to PNL 10FPB2/From IDC to PNL 10EPB. Please show intended path on Power & System Plans.

ANSWER: *From PNL 3EEA to CU-63 and from PNL 3EPA to CU-62, conduit may be routed through the wall of room 3E8 and directly down the high bay wall/structure to the condensing units sitting above the floor of the high bay. From NL 3EEA to PNL 16FEB2 and PNL 16EEB and from the IDC to PNL's 10FPB2 and 10EPB, use the Tower's Utility Chases.*

95. REFERENCE: Drawing E-205, E-209, E-211, and E-215

QUESTION: Please clarify if the intent of the drawings is to route the conduit from the KITS receptacles into the Tower Utility Chase then to the designated panelboards? Please show intended path on Power & System Plans.

ANSWER: *No, the intended allowed path would be vertically through the open structure direct from the panelboard to the KITS enclosures above. Conduit is to be field routed and will not be shown.*

96. REFERENCE: General

QUESTION: Please define the specific conditions that will be imposed for craft workers lunches and breaks. Specifically, can they eat and drink at their worksites within the VAB?

ANSWER: *There are no specific restrictions regarding eating and drinking in the VAB. The Contractor may set his own standards for policy regarding eating and drinking and designate what areas of the work site may be used for those purposes. The Contractor must maintain good housekeeping practices to prevent odor, insect, and animal problems related to having food in the VAB. Food and drink related wastes must be segregated from construction and demolition debris since the KSC landfill is not authorized to take food (putrescible) waste.*

97. REFERENCE: General

QUESTION: Please specify the policy regarding smoking in the VAB?

ANSWER: *No smoking is permitted within the perimeter fence of the VAB. All smoking materials including lighters, matches, cigarettes, smoking tobacco, papers, cigars, or any other smoking materials are prohibited within the perimeter fence of the VAB.*

98. REFERENCE: General

QUESTION: Please confirm if the workers will be required to badge out through the perimeter fence for craft breaks, lunches or smoking breaks?

ANSWER: *Personnel are required to follow the badging requirements any time they go out or in through the VAB perimeter fence.*

99. REFERENCE: Specification 26 08 00

QUESTION: Part 1.3. Regarding second paragraph of referenced specification, do air handlers, condenser units and pumps fall under this category?

ANSWER: *No, but any variable frequency drives used to operate the referenced equipment will need to be tested and meet the specification.*

100. REFERENCE: Specification 43 21 13

QUESTION: Part 1.4. The referenced specification states 180 days of service is required for the centrifugal water pumps. When does the 180 day period begin? What level of service is required? All preventative maintenance or only warranty service?

ANSWER: *The 180 day period begins at equipment installation. The service to be included is the installation, adjustment, and verification of operation through testing and turnover. It is not necessarily 180 consecutive days and does not include support provided by warranty, see section 01 75 00.*

101. REFERENCE: Specification 41.22.20

QUESTION: Mechanisms for the Sliding Platforms. Section 2.4 Paragraph starting with the words “The sliding platforms shall be equipped...” This paragraph references Sheet E-608 which is not part of this document. Please provide the correct drawing reference.

ANSWER: *The correct electrical sheet reference is E-606.*

102. REFERENCE: Drawing FP-002

QUESTION: The drawing appears to indicate that the deluge sprinkler system piping is provided at the bottom of the platform trusses, utilizing pendent sprinklers. No sprinklers are indicated within the platform steel structure, to possibly provide cooling of the steel members during the fire. The specifications are not clear on the subject, and there are no known code requirements to install a deluge sprinkler system high in the steel webbing or close to the platform above, as no heat collection is required for open sprinklers to successfully deploy. Please confirm that this is indeed the design intent, and that no deluge sprinkler piping is to be installed higher up in the steel webbing to provide cooling of those steel members in case of fire?

ANSWER: *Yes, the deluge sprinkler piping is not designed to be installed to provide cooling of the steel members from below the platform. The intent of the deluge system is to provide personnel protection for evacuation of the platforms to the fire rated stair enclosures.*

103. REFERENCE: Drawing M-101 Zone F-5

QUESTION: Please provide the manufacturer name and part number for the 1” isolation valve added by Rev A.

ANSWER: *Isolation valve shall be provided in conformance with the specifications. Refer to specification 22 60 70 for piping, fittings and valves associated with breathing air.*

104. REFERENCE: Drawing M-303 Rev. A Zone H-6

QUESTION: Please clarify the elevation of the line where it is capped off as the Rev. A drawing does not show the termination for the ¾” .109 GN2 line?

ANSWER: *The line is capped along with the existing utilities at Floor 31 elevation 381’-9”.*

105. REFERENCE: Drawing S-353A

QUESTION: Ladder platform framing. Please provide section cuts for the C4X5.4 kick braces at ladder platform with connection details.

ANSWER: *Use the "Typical Vert Brace to Beam Flange Detail" on sheet S-503 zone D5 at each end. Bolts shall be 3/4" diameter minimum. Connection plate shall have 3/16" welds on each side.*

106. REFERENCE: Drawing M-502, Detail EG

QUESTION: Please clarify how detail EG on Drawing M-502 relates back to Drawing M-104 as the applicability of this detail is not clear?

ANSWER: *The reference in detail EG is incorrect. The detail should reference M-105. The detail is called out on elevation BA.*

107. REFERENCE: Drawing M-505 GFE List

QUESTION: (Part #51, 3/4" shut off valve) Please provide the correct part number for the 3/4" shut off valves as the part number provided (79K80101-7) is for a 3" grayloc hubbed valve.

ANSWER: *The part number (79K80101-7) provided for item number 51 is correct. The part description is incorrect and will be changed to indicate a 3" shut-off valve instead of a 3/4" shut-off valve. See the addenda elsewhere in this amendment.*

108. REFERENCE: Drawing S-353A

QUESTION: Ladder platform framing. Please provide size, shape and connection details for the unsized member 17'-10 1-3/4" off grid line 5 and diagonal member shown that is unsized.

ANSWER: *The member shall be a C6x8.2 at the East Intermediate ladder landing platform. Use the "Typical Beam to Beam Detail" and the "Typical Diagonal Beam to Beam Detail" on sheet S-503 for connections using the "Standard AISC Connection" for C8, W8 and W10 beams.*

109. REFERENCE: Drawing S-425

QUESTION: Section HD, Stiffened 1/4" plate. Please confirm if there are additional stiffeners required or if this section is referring to the members shown on the bottom chord framing plans on drawings S421, S422, S423, and S424?

ANSWER: *The additional stiffeners required are shown on S-501 zone C2, "Typical Stiffened Steel Plate Detail".*

110. REFERENCE: Drawing S-501

QUESTION: Please provide kick plate to guardrail post attachment details.

ANSWER: *For guardrails that are "Speed Rail or Equal" the kick plate shall be attached using the manufacturer's method of attachment. For shop fabricated fixed guardrail – Attach kick plates with 3/16" minimum flare bevel welds on each side of the posts.*

111. REFERENCE: Drawings 10C00007 Sheet A-501

QUESTION: Details AS 201, AS 202, and AS 402. What is the gauge thickness, plate material specifications, and size of the trim flashing plate for these shaft wall penetrations?

ANSWER: *The material, gauge thickness and size of the plate will depend upon the required fire rating and the approved firestop method being provided by the Contactor. The materials selected by the Contractor shall conform to the UL Fire Resistance or other details certified by another nationally recognized testing laboratory. See specification section 07 84 00 for further details and submittal requirements.*

112. REFERENCE: Drawing FP-101 Note K, and Drawing FP-102 Note J.

QUESTION: The notes instruct the contractor not to run the risers directly between the platforms without accounting for independent platform deflection. Please indicate the maximum platform deflection in relation to the fixed stairwell shaft wall where the inter-platform system risers will be located. Please confirm that the use of UL listed flexible expansion loop fitting (e.g. Metraflex FireLoop) will be acceptable to accomplish this, as long as the anticipated maximum platform deflection is within the fittings listed tolerance?

ANSWER: *Due to the dynamics of the platforms we recommend that the Contractor not run the fire risers directly between platforms. The deflection for each platform will vary depending on the position of the slider and the load distribution. The theoretical deflection of each platform independently is .97 inches. The risers as shown in the contract drawings are supported by the life safety tower to avoid the fire risers being run directly between the platforms. It is reasonable to expect expansion compensation fittings be used in fire systems. Additional information would be required before acceptance of the fitting. Fitting approval/disapproval will be provided during the submittal process.*

113. REFERENCE: General

QUESTION: Please provide the finish on 6061-T6 alloy aluminum post and rails.

ANSWER: *Finishes for aluminum are not required for this exposure zone.*

114. REFERENCE: General

QUESTION: Is there a drawing available for the existing structural steel at the VAB Building above elevation 404' 3"? If so, could you please provide a copy of this drawing to us?

ANSWER: *Existing structural steel above elevation 404'-3" is indicated in drawings: 203-28,297 Volume 3, Structural Framing Plans, sheets 3-71 to 3-91, 203-28,297 Volume 4, Structural Framing Column Line Sections and 203-38,297 Volume 5. Volume 5 contains miscellaneous generally secondary framing. These drawings have been provided and are available to the bidders.*

115. REFERENCE: General

QUESTION: Please confirm if the fire suppression design for the deluge sprinkler systems provided under this contract will need to account for the ability of platforms to be raised or lowered in the future? For example, do the hydraulic calculations need to account for raising the sprinkler piping on the hydraulically most remote platform by +/-3ft, and dropping the sprinkler piping on the hydraulically least remote platform on the same system by +/-3ft?

ANSWER: *No, the hydraulic calculations do not need to account for the future relocation of the platforms. The hydraulic calculations should account for the final installation and not future adjustments.*

116. REFERENCE: General

QUESTION: Please confirm if the GN2 required for drying and leak testing be provided by NASA?

ANSWER: *No, the contractor shall provide the GN2 required for drying and leak testing of the new systems and piping. The Contractor is responsible for the cleaning of the tubing and testing for leaks prior to opening the main system valves to prevent potential contamination of NASA utilities.*

117. REFERENCE: Specification 23 31 13

QUESTION: Paragraph 3. Please verify this is the extent of cleaning required for all new ductwork.

ANSWER: *If the ducts are sealed from construction dust and debris, as required by the specifications, then the extent of the cleaning is that required by Specification 10C00005, Section 23 31 13, paragraph 3.5.*

118. REFERENCE: Specification 23 31 13

QUESTION: Paragraph 2.1.1, 2.1.2, and 2.1.3. Please clarify the required duct construction for rectangular duct and round spiral duct? Paragraph 2.1.3 states that double-wall duct shall be provided for all ducts providing conditioned supply air at temperatures below ambient conditions. Is the new ductwork to be single or double-wall? If the duct is to be double-wall, please confirm the insulation shall be 2” thick?

ANSWER: *The new ductwork for A/C 20, 33, and 34 shall be double wall, with 2” thick insulation. V-4 shall be single wall un-insulated. Rectangular and round ductwork is indicated on the plans through dimensioning. Typically all ductwork in the High Bay area is round.*

119. REFERENCE: Specification 28 31 00.01 98

QUESTION: Shop drawing submittal for modifications to existing Towers E&F calls for “all sheets” from 98K03020 and 98K03030 to be used. These shop drawing submittals will include connection drawings and schematics. In a following paragraph, Pro-Engineer format computer generated connection drawings, Schematics, As-Built, and fire service floor plans are required. Please clarify if the intent of this project is to convert all sheets of existing 98K03020 and 98K03030 sets to Pro Engineer format?

ANSWER: *It is not the intent and is not required of this project to convert all sheets of Drawings 98K03020 and 98K03030 to Pro Engineer format.*

120. REFERENCE: Specification 41 22 20,

QUESTION: Paragraph 2.6 and 41.22.25, paragraph 2.5. The Specification states the Contractor shall identify in the quotation any special tools required for testing, troubleshooting or maintenance work with complete instructions for their use. Please confirm that identification of tools in the quotation is not required as part of the Contractors Bid Proposal to NASA.

ANSWER: *Identification of the tools is not required as part of the Bid Proposal but is required to be provided as part of the shop drawing submittal.*

121. REFERENCE: Specification 21 13 26.00 40

QUESTION: Part 2.7.1.1. The referenced specification (4th paragraph) states sprinkler heads in unfinished areas shall be upright type. Due to pipe sizes and code requirements, can pendant sprinklers be used instead in the unfinished areas?

ANSWER: *Yes, platform deluge nozzles/sprinkler heads shall be pendant. Paragraph 2.7.1.1 does not apply to the deluge system for the platforms.*

122. REFERENCE: Specification 28 31 00.01 98

QUESTION: Part 2.10 and 2.11. The referenced specification does not mention explosion proof tamper and flow switches. Are explosion proof tamper and flow switches required?

ANSWER: *Explosion proof requirements apply whenever the equipment or raceways are located in or pass through hazardous areas. Hazardous areas are identified on drawings E-001 General Note 11, EH-801 and EH-802. It is anticipated, if they are located as indicated in the drawings, that the flow and tamper switches will be installed outside the hazard areas and will not be required to be explosion proof.*

123. REFERENCE: Drawing E-206

QUESTION: Note L. There are multiple electrical panelboards that are to be replaced. One example is panel 11EEB shown on drawing E-206 Note L. There is a concern that some or all of the wire may not be long enough to be re-terminated in the new panelboard or they may not be color coded correctly for the phase breaker they can be terminated on. If such an issue occurs, will it be acceptable to install a trough above or below the panelboard to splice the existing circuits?

ANSWER: *Providing a trough either above or below or possibly both locations for splicing existing circuit wires is one of the acceptable solutions for re-terminating wires into replaced panelboards. There may be other acceptable solutions as well. In all cases, the existing circuits need to be re-terminated to the same numbered circuit breakers to maintain the existing circuit labels on devices and junction boxes.*

124. REFERENCE: Specification 09 97 13.00 40

QUESTION: Ref. 10C00005. 3.4.e calls for caulking of openings ½ inch or smaller. The majority of the angle iron diagonals is back to back and will have a ½ inch or less gap between them. Are these to be caulked? And if so, are they to be caulked on both sides (top and bottom)?

ANSWER: *Yes, after coating with inorganic zinc, caulk gaps between back to back members per 09 97 13.00 40 part 3.4. Yes, caulk both sides of the back-to-back members to eliminate an opening to the space between.*

125. REFERENCE: Specification 05 50 00.00 40

QUESTION: Ref. 10C00005. Section 05 50 00.00 40, 2.7 Protective Coatings, calls for vent and drain hole to be plugged with zinc solder and smoothed. 3.4.f

of the referenced section calls for caulking of hot dip galvanized vent holes to be caulked. Can you clarify how they are to be filled?

ANSWER: *Caulk vent and drain holes. The surfaces that are referenced in the coating schedule of specification section 09 97 13.00 40 are for structural steel. There are no hot-dipped galvanized structural steel members on the project at this time.*

126. REFERENCE: Drawing S-702

QUESTION: West elevation @ column line B shows a HSS10x10x3/16 that starts at floor ten at the intersection of gridlines B and 3, but does not show where the tube terminates. Please provide plan and elevation view for the termination point of the HSS10x10x3/16.

ANSWER: *The diagonal termination point is at Col Line D5 at Floor 7 elevation similar to the diagonal on sheet S-701 "South EL @ Col Line 7 at Col D7 at floor level 7."*

127. REFERENCE: Drawing S-701

QUESTION: South elevation @ column lines 4 and 8 show C8x11.5 channel at levels 2, 3 and 6. These elevations do not show the termination point of the C8x11.5. Please provide plan view of floors 2, 3 and 6 showing the connection locations of the C8x11.5 channel.

ANSWER: *The channels are approximately 9'-6.25" long. A typical plan view can be seen on drawing 203-28-297 Vol 3 sheets 3-10.*

128. REFERENCE: Drawing S-511

QUESTION: In detail AH and AS wheel load ratings are required for the two wheel assembly. It appears that the dimensions provided for the wheels indicate a 21" Wheel Diameter for the larger wheel and a 12" Diameter for the smaller wheel. Based on the selection of the 85 lb yd rail, these two wheel sizes do not comply with CMAA 70 Table 4.13.3-4 for wheel loads. Please confirm if the wheel size for the larger wheel should be 30" with 58Rc hardness. Note this would raise the complete platform system by 9" minimum?

ANSWER: *The load capacity of the wheels indicated on Drawing S-511 is the full capacity of the basis of design (Demag) travel wheels. The Demag travel wheel has a minimum wheel hardness on the contact surface of 260 Bhn. The actual maximum design loads for the sliding platform on the wheels are lower than the (Demag) basis of design full capacity loads. The use of the 85 lb ASCE rail meets the requirements of CMAA 70 for the actual design loads for the wheel diameters for the Demag wheel blocks indicated on sheet S-511 (even considering the high*

durability factors of a Crane service class D with a minimum kwl of 0.85 for a slow moving infrequently used platform). Note also that the ASCE 80 and ASCE 85 rails are different widths, but are still given the same capacity in CMAA 70 table 4.13.3-4. The 85 lb rail has a wider effective rail head and CMAA 70 should indicate a higher capacity.

129. REFERENCE: Specification 41 22 20

QUESTION: Please clarify if the described method for freewheeling (removing the motor reducer from the wheel axle) is so the wheel can move freely? Note, the ratio on the reducers will be very high and back driving will not be possible?

ANSWER: *The intent for the manually moving the platform is to provide a means of allowing the decoupling of the wheel from the gearbox. The basis of design (Demag) has a removable splined shaft that can be removed to allow the wheel to move freely.*

130. REFERENCE: Specification 41 22 20

QUESTION: Specification 41 22 20 and Drawing S-441. Section 2.3 requires, "A manual means of operating the sliding platforms, shall be provided in case of electric power failure, gear box failure, or travel wheel failure." Drawing 10C00003, Sheet S-441 notes for the manual retraction state, "Free movement of the wheels is required prior to manual pulling of the slider." Please confirm that the combination of these two requirements is that the backup system can be presumed to have free movement of the wheel, even in the event of the travel wheel failure, provided the travel wheel can be disengaged from the gearbox?

ANSWER: *Yes it is the intent. See previous question and answer for more information.*

131. REFERENCE: Specification 05 12 00

QUESTION: Section 3 SD-02 indicates the connections need to be designed for the strengths on the drawings. We could not locate any connection loads on the drawings and all of the connections are detailed. Please clarify which connections require design and define the specified connection design loads?

ANSWER: *The connections in question are those for the reinforcement of the existing VAB framing indicated on sheets S-701 to S-704.*

132. REFERENCE: Amendment 7

QUESTION: Question/answer 20 regarding installation of conduit at stairwells. Please confirm that rigid conduit is required if the conduit is run exposed. Please clarify if exposed conduit is required to match adjacent wall finish.

ANSWER: *Yes, all exposed conduit is to be rigid steel conduit. Only exposed conduits in finished offices and communication rooms are required to be painted to match adjacent wall finishes.*

133. REFERENCE: Specification 26 08 00

QUESTION: Apparatus Electromagnetic Radiation Testing, section 1.4.1 Qualifications. "Contractor shall engage the services of a qualified testing organization." Please confirm if a specific certification (if any) is required?

ANSWER: *No, however they must meet the requirements specified in Specification section 26 08 00 Paragraph 1.4.1 a.*

134. REFERENCE: Specification 23 31 13, Paragraph 3.5

QUESTION: Paragraph 3.5. Please clarify the applicability of specification 10C00005, Section 22 15 14.00 40 titled "General Service Compressed-Air Systems, Low Pressure" as it appears to be a cleaning specification and cleaning requirements are specifically addressed in the applicable sections for HP gases (22 15 13.16 40) and low pressure compressed air piping (43 15 00.00 20).

ANSWER: *This section provides additional cleaning for the pneumatic control tubing for the fire protection quad valve actuators.*

135. REFERENCE: General

QUESTION: The Contractor would like to have the RFP drawings in Autocad format for use in preparing our material take-offs. The Contractor requests through the CLIENT to receive Autocad versions of the RFP drawings from the A/E of Record, BRPH.

ANSWER: *No, the Government will not provide or authorize release of Autocad files of the drawings from the A/E of record.*

136. REFERENCE: RFP Section J.1.B.1.(a)

QUESTION: Section J.1.B.1 refers to utility outage permits. The VAB project requires the Contractor to tap into existing electrical, fire alarm and air systems inside the VAB. The Contractor will need to isolate sections of the existing VAB utilities in order to tap into them but this should not affect areas outside of High Bay 3. Please confirm that utility outage permits are not required for utility work not affecting areas outside of High Bay 3.

ANSWER: *Isolation of the HB-3 area will be performed under the demolition contract. The work performed under this contract will be performed under the lockout*

tagout procedures identified in RFP Section J.1.B.1. The outage process is required if the contractor requires the turnover or operation of any system not under his direct construction control or de-energized on a previous outage.

137. REFERENCE: RFP Section J.1.B.13

QUESTION: The Contractor is required to provide and install the necessary electrical connections (power) for the Government field office. Is the Contractor required to provide and install the necessary telecom (voice and data) connections for the Government field office?

ANSWER: *No, the contractor is not responsible for providing telecom connections to the Government office.*

138. REFERENCE: RFP Section J.1.B.15

QUESTION: Please confirm that J.1.B.15 does not apply to the testing of electrical equipment.

ANSWER: *Confirmed. Electrical equipment shall be tested in accordance with the contract specifications.*

139. REFERENCE: RFP Section J.1.B.18

QUESTION: The Contractor is required to conduct dewatering operations per J.1.B.18. Please confirm there are no dewatering operations as part of this RFP or clarify the specification for dewatering operations.

ANSWER: *Work in the Construction Laydown Area may require dewatering depending on the contractor's means and methods. All appropriate permits will be obtained by the contractor.*

140. REFERENCE: RFP Section J.1.C.13

QUESTION: The referenced section requires the Contractor to submit a 14 day look ahead schedule to NASA on a daily basis at the morning VAB coordination meeting. This 14 day look ahead consists of the next 3 days scheduled in hourly increments and the following 11 days in shift increments. Please confirm that NASA requires this daily update of the 2 week look ahead schedule.

ANSWER: *Yes, a daily update of the 2 week look ahead schedule is required for review at the morning VAB coordination meetings.*

141. REFERENCE: Drawing E-503

QUESTION: Detail C. Please clarify the attachment method for the vertical unistrut at guardrail (i.e. welded or bolted)? Please provide a detail?

ANSWER: *The contractor can use either method. All welding must be done in accordance with approved welding procedures.*

142. REFERENCE: Drawing E-601

QUESTION: Note C. Platform Contract Drawing Documents 10C00003, drawings E-601 note-C indicates all panels in towers are existing, but the panel schedule drawings do not confirm this. Please clarify list of new panels to be provided in the towers?

ANSWER: *Panel schedules E-620 through E-638 do correctly indicate which panels are existing and which are new. All existing panels are indicated as such in the panel nomenclature. All others are new or replaced.*

143. REFERENCE: `General

QUESTION: Guards at North gate 24 hours. Please confirm if the North gate will have a guard on site 24 hours/day for any applicable night work?

ANSWER: *No, the gate will be manned during the contract specified work period as defined in RFP Section F.4 of the Solicitation Body.*

144. REFERENCE: General

QUESTION: Gate at East of VAB (from High bay 3 high bay exterior door to gravel crawler access road) Will this gate be accessible to the Contractor?

ANSWER: *The crawlerway and crawlerway gate on the eastern side of the VAB shall not be used for routine access through the VA B perimeter fence. The contractor shall use the VAB north gate (C gate) and south gate (F gate) for routine access to the VAB. The portions of the crawler road that can be used on a routine basis include only the area east of High Bay 3 to a maximum distance of 200 feet from the face of the VAB building. Occasional use of the crawlerway gate on the east side of the VAB will be considered on a case by case basis for loads which cannot be brought in using other gates.*

145. REFERENCE: General

QUESTION: Can we check in before 7:00 am @ the VAB Building?

ANSWER: *No, access to the VAB during the contract specified work period is defined in RFP Section F.4 of the Solicitation Body.*

146. REFERENCE: Drawing E-604

QUESTION: Please clarify the schedule for the backbone work (by others) as it will be required to be completed in order to test the entire PAWS system. Note that the testing is required to be included under this contract?

ANSWER: *The backbone installation will be performed during the joint occupancy period. The Contractor is required to coordinate with the Contracting Officer to coordinate PAWS system installation and testing.*

147. REFERENCE: RFP Section J.1.B.15

QUESTION: This paragraph indicates that testing “of construction materials indicated to be performed by the Contractor shall be accomplished by the contractor utilizing the services of an acceptable independent testing laboratory.” Does this apply to the testing required in the electrical specifications where it states that the Contractor is to labor and personnel to perform testing such as in section 26 27 26.00 40 3.8? Or can the contractor self perform such testing?

ANSWER: *No, Section J.1.B.15 does not apply to testing of electrical equipment.*

148. REFERENCE: Amendment 3

QUESTION: Due to the increase in the Scope of Work, will there be a corresponding increase in the Contract duration (i.e. increase the 618 days)?

ANSWER: *No, the performance period will remain the same.*

149. REFERENCE: Drawing M-001

QUESTION: Reference Tubing Notes. Please confirm all KC fittings and tubing that is required for this project, but not shown on the GFE list (M-505), will be Government furnished?

ANSWER: *The GFE list has been revised in Revision A of the drawings.*

150. REFERENCE: Drawing M-002

QUESTION: Reference Flag Note G. Please confirm this note applies to both towers E & F?

ANSWER: *Yes, Flag Note G is typical for all compressed air lines to the platforms from both Tower E and Tower F.*

151. REFERENCE: General

QUESTION: Please confirm if break and lunch areas will be provided for the construction workers in our areas of work inside the VAB. Also, please confirm if the workers will be allowed to use the restrooms on the floors where the work is to take place inside the VAB.

ANSWER: *The contractor may define break areas within the designated construction boundaries. The restrooms are not available for the contractor's use.*

152. REFERENCE: RFP Section H.8

QUESTION: Are there sanitary sewerage connections within the VAB and laydown area that are available for Contractor use in place of using "Port-a-Johns" inside the VAB and laydown area?

ANSWER: *No, there are no sanitary sewerage connections available for the contractor's use.*

153. REFERENCE: RFP Sections H and I

QUESTION: Given that contractor operations and modifications to the interior of the VAB would be shut down and the building closed during a major storm, such as a hurricane, is it NASA's intention to indemnify the contractor for damage to the VAB and/or the contractor equipment and existing modifications inside the building, in the event of wind damage or flooding?

ANSWER: *No, the Government will not indemnify the Contractor for damage to the Contractor's equipment or work performed prior to final acceptance.*

154. REFERENCE: Section H.8

QUESTION: Please confirm use of existing Restrooms inside the VAB facilities is not allowed. If the use of existing restroom is not allowed, will temporary facilities be allowed inside the VAB or will personnel be required to completely exit the facility?

ANSWER: *No, the existing restrooms in the VAB are not available for the Contractor's use. Placement and servicing of portable sanitary facilities are acceptable in the VAB at the Contractor's expense.*

155. REFERENCE: Amendment 5

QUESTION: Section F.8. The referenced section states the Contractor shall plan for limited beneficial occupancy of the work site no later than July 25, 2011. Will NASA be bringing large equipment into High Bay #3 of the VAB after July 25, 2011 that will affect crane usage?

ANSWER: *The beneficial occupancy date is now December 15, 2011. After this date, the VAB overhead cranes will be used periodically to install ground support equipment on the platforms. These operations will be coordinated during the VAB morning meetings.*

156. REFERENCE: Amendment 6

QUESTION: Section J.1.B.13. The referenced amendment revised the field office requirements for NASA's staff. The revised NASA office "shall be at least 4,030 square feet and shall include... an enclosed conference room of approximately 23 feet by 23 feet." The revised J.1.B.13 also states "the Contractor shall also provide a conference area, either in a separate temporary facility, or as part of the contractor's work area..." Please confirm the conference area in the separate facility is still required as NASA will be provided with a conference room as part of its field office.

ANSWER: *Confirmed. A separate Contractor's conference room is required independent of the Government's conference room.*

157. REFERENCE: Amendment 6

QUESTION: Question/answer 18. The Government has stated it may consider proposals for alternate work periods. However, these alternate work periods may require Contractor reductions to account for additional Government labor costs. Contractor requests to know what these Contractor reductions costs will be by 1 day units for each Government position required to work the alternate work period and what those positions are.

ANSWER: *This information cannot be provided during the bid period. The cost of Government resources is based on the Contractor's work activities. If necessary, this can be negotiated after contract award.*

158. REFERENCE: Drawing V-002

QUESTION: Specific Note E. Please confirm the laydown area is the same for both the existing platform demolition Contractor and the new platform and egress Contractor?

ANSWER: *Yes, the laydown area will have joint occupancy by both contractors.*

159. REFERENCE: Drawing V-002

QUESTION: Specific Note E. Please confirm if NASA has additional available laydown areas and please clarify location? Note, there are many unusable areas in this dedicated common laydown area due to drainage/grading issues?

ANSWER: *No, the specified laydown area is the only area available to the contractor.*

160. REFERENCE: Drawing S-702

QUESTION: West Elevation between Column Lines 2 and 3. The West elevation has a note at floor level 5 which states "Brace to existing floor framing." This note also occurs at grid line D on drawing S703. Please confirm if this brace is existing or new at these locations. If a new brace is required, please provide size and shape of member?

ANSWER: *The brace is new. See "TYPICAL BRACE TO EXISTING FLOOR FRAMING" detail on sheet S-704 for sizing and connection information.*

161. REFERENCE: General

QUESTION: Please confirm if existing 480 volt power is available for Contractors use at each existing VAB level?

ANSWER: *Power is not available at all VAB Levels. Contractor shall plan on utilizing the power panels indicated for new work to the platforms, except A1 emergency power shall not be used for construction. Contractor shall modify existing panels as required for temporary power in accordance with NFPA 70. If the existing panel is not turned over to the Contractor for modification or supplies existing loads outside of the work area, then an outage will be required.*

162. REFERENCE: General

QUESTION: This project will require submission of the 10C00003 drawing set, 10C00007 drawing set, the 98K03020 and 98K03030 drawing sets, and the ASDS drawing submittals. Please confirm if Pro Engineer format will be required for the fire alarm systems on each of these drawing sets?

ANSWER: *No, Pro Engineer format is not required. See addenda in this amendment.*

163. REFERENCE: Specification 28 31 33.00 98

QUESTION: Paragraph 1.3. ASDS specs allow for submittals in .DWG and .DXF format. Please confirm that Pro Engineer format is not required.

ANSWER: *Pro Engineer format is not required. See addenda in this amendment.*

164. REFERENCE: Specification 21-13-26-00-40

QUESTION: Part 2.2.9. Spec noted above states hydraulic calculations shall be based on the existing fire pump. Fire pump rating given is 1500 gpm at 286psi. Based on the fire pump rating at 150% capacity it will produce 2250 gpm at 186psi. At these values, calculations indicate the pump size is not adequate to supply three new platforms served by the associated quad valve assembly. If provided pump information is correct, please advise how NASA would like the Contractor to proceed as calculations indicate that three platforms could not be served from one quad valve.

ANSWER: *See Revision B. The Certified Pump Performance Curve dated 9/97 indicates that 2250gpm at 246.8psi is available. The verified test dated 11-8-2005 indicates that 2161gpm at 235.6psi is available. Refer to the attached pump performance data. Revision B to the drawings has incorporated the revised requirements.*

165. REFERENCE: Specification 09 90 00

QUESTION: Ref. 10C00005 Section 1.8.11. calls for painting of interior exposed columns, girders, beams, joists, metal deck, and other contiguous surfaces. All of these are ferrous metal surfaces. 3.6 Coating Systems, line e calls for painting of piping. Yet, in 3.10 Paint Schedule, there is no scheduled painting of any new ferrous metal except the non skid coating on the Steel Deck Tops. Can you clarify if we are to paint all other metals and what coating system to use?

ANSWER: *Prime painting of structural steel is covered in Specification 10C00005 Section 09 97 13.00 40. See Schedule of VAB Steel Paints and Coatings attached.*

166. REFERENCE: Drawing E-001

QUESTION: Drawing E001 Note 15 states that grounding work shall be in accordance with the latest edition of KSC-STD-E-0012E Facility Grounding and Lightning Protection Standard. Please issue this document so we can incorporate the requirements into our bid.

ANSWER: *The standard can be accessed at the following website:
<http://standards.nasa.gov/documents/ksc>*

167. REFERENCE: Specification 26 33 53.00 20

QUESTION: Part 2.2.2. The UPS specification calls for the battery to provide 15 minutes of back-up. Should the 150% of UPS load initial capacity requirement also sustain the system for 15 minutes?

ANSWER: *Provide battery-backup capable of providing the unit's full KW capacity for 15 minutes, minimum, upon interruption of primary AC power at rated KW load.*

168. REFERENCE: RFP Section J

QUESTION: Section J.1.C.20. The referenced section states that Escorts will be stationed at all access and entry points for the construction control area. Once personnel requiring an escort are escorted to the construction control area, do these personnel still require an escort within the construction control area?

ANSWER: *Yes, escorts are required in the construction control area.*

169. REFERENCE: Specification 09 90 00

QUESTION: Paragraphs 3.9 & 3.10. Since there is no reference in the coating schedule, please confirm that all ferrous steel surfaces (with the exception of cellular deck and steel stair treads) receive an inorganic zinc primer only and no finish coat.

ANSWER: *Please refer to the paint schedule attached to this addendum for information.*

Section 2 Amend RFP, Specification 10C00005, and Drawing 10C00003

- 1. REFERENCE: Drawing 10C00003, VAB High Bay 3 Platforms for Constellation, sheet S-001: change GENERAL NOTES – LOAD TESTS, Note 1, first sentence as follows:**

From: "Platforms shall be weighed to a tolerance of +/- 2-1/2% to verify loads applied to the VAB structure."

To: "Platforms shall be weighed to a tolerance of +/- 2-1/2% of the platform weight using a calibrated scale, to verify loads applied to the VAB structure."

- 2. REFERENCE: Drawing 10C00003, VAB High Bay 3 Platforms for Constellation, sheet SD-101: change Flag Note J as follows:**

From: "See Sheet S-521 for bracing rework."

To: "See Sheet S-701, S-702 and S-703 for bracing rework."

3. REFERENCE: Specification 10C00005, VAB HB3 Platforms for Constellation, Section 14.21.13, change Paragraph 1.3 g as follows:

From: "The Government shall provide all I/O devices, final connection to I/O devices and hall signal lanterns."

To: "The Government shall provide all I/O devices for installation by the Contractor. Final connections to I/O interface devices and the Contractor provided (furnished and installed) hall signal lanterns will be by the Government."

4. REFERENCE: Drawing 10C00003, VAB High Bay 3 Platforms for Constellation, sheet E-601: change Specific Note C as follows:

From: "All panelboards shown in Towers E & F are existing. All panelboards shown on the platforms are new, UON."

To: "All panelboards shown in Towers E and F are existing, unless otherwise noted (UON). All panelboards shown on the platforms are new."

5. REFERENCE: Drawing 10C00003, VAB High Bay 3 Platforms for Constellation, sheet S-502: change note in detail titled "New Steel Deck Insert Between New Fixed Platform and Elevator Access Platform" as follows:

From: "L4x3x1/4 LLV CONTINUOUS W/ VERTICAL LONG SLOTTED HOLE @ L3X3 BUTT WELD PL 1/4x4x0'-6" TO VERT LEG TO LINE UP WITH L3X3".

To: "L4x3x1/4 LLV CONTINUOUS W/ VERTICAL LONG SLOTTED HOLE".

6. REFERENCE: Drawing 10C00003, VAB High Bay 3 Platforms for Constellation, sheet E-205: change Specific Note D as follows:

Change conduit size from 2" to 2-1/2".

7. REFERENCE: Drawing 10C00003, VAB High Bay 3 Platforms for Constellation, sheet S-355A: add the following note:

Add: ""See detail AYA/S-576A for column bases (typical)".

- 8. REFERENCE: Drawing 10C00003, VAB High Bay 3 Platforms for Constellation, sheet E-200 and E-202: Power and Systems Plans; add the following note:**

Add: "Route power conductors from PNL 3EEA to CU-63 and from PNL 3EPA to CU-62 through the wall of room 3E8 and directly down the high bay wall structure to the condensing units".

- 9. REFERENCE: Specification 10C00005, VAB HB3 Platforms for Constellation, Section 41.22.20, change the last line in the seventh paragraph of Part 2.4 g as follows:**

From: "Reference Project Drawing, Sheets E-501 and E-608 for additional requirements."

To: "Reference Project Drawing, Sheets E-501 and E-606 for additional requirements."

- 10. REFERENCE: Drawing 10C00003, VAB High Bay 3 Platforms for Constellation, sheet M-502 Detail EG: change the reference callout as follows:**

From: Drawing M-104.

To: Drawing M-105.

- 11. REFERENCE: Drawing 10C00003, VAB High Bay 3 Platforms for Constellation, sheet M-505 GFE List: change Part # 51 as follows:**

From: Valve, ¾" Shutoff

To: Valve, 3" Shutoff

- 12. REFERENCE: Specification 10C00005, VAB HB3 Platforms for Constellation, Section 09.97.13.00.40, Paragraph 2.7: change the last line in the seventh paragraph of Part 2.4 g as follows:**

From: "Fill vent and drain holes that will be exposed in finished Work, unless designed to remain as weep holes, by plugging with zinc solder and filing off smooth."

To: "Fill vent and drain holes that will be exposed in finished Work, unless designed to remain as weep holes, by plugging with caulk and smoothing."

- 13. REFERENCE: Drawing 10C00003, VAB High Bay 3 Platforms for Constellation, sheet S-702, sections “WEST EL @ COL LINE A”, “WEST EL @ COL LINE B” and Drawing S-703, section “WEST EL @ COL LINE D”: Change the note as follows:**

From: “Brace to existing floor framing.”

To: “See Typical Brace to Existing Floor Framing detail on Sheet S-704”

- 14. REFERENCE: Drawing 10C00003, VAB High Bay 3 Platforms for Constellation, sheet E-502: change Specific Note D as follows:**

From: “4-#4 conductors...”

To: “4-#2 conductors...”

- 15. REFERENCE: Drawing 10C00003, VAB High Bay 3 Platforms for Constellation, sheet E-600 : change Specific Note H as follows:**

From: “...1/2” conduit...”

To: “...3/4” conduit...”

- 16. REFERENCE: REFERENCE: Specification 10C00005, VAB HB3 Platforms for Constellation, Section 21.13.26.00.40, change section 1.3, paragraphs 12-14 as follows:**

From: “As-Built drawings shall be submitted for approval 21 days prior to the acceptance testing phase of the project as described in the paragraph entitled, "System Testing," of this specification section. Two (2) sets of magnetic media and hard copies of all new and revised software and drawings shall be provided with the submittal. As-Built drawings shall document final system configuration including deviations from and amendments to the drawings, and field installation changes, concealed and visible.

Pro-e format computer generated floor plan layouts indicating all automatic sprinkler and standpipe systems components shall be provided.

As-built drawings and hydraulic calculations shall be signed and sealed by a Licensed Professional Engineer registered in the state of Florida.”

To: “Submit As-Built drawings and final hydraulic calculations for approval 21 days prior to the acceptance testing phase of the project as described in the paragraph entitled, "System Testing," of this specification section. Two (2) sets of

magnetic media and hard copies of all new and revised software and drawings must be provided with the submittal. As-Built drawings must document final system configuration including deviations from and amendments to the drawings, and field installation changes, concealed and visible.

As-Built drawings shall be AutoCAD/ .DWG format computer generated floor plan layouts indicating all automatic sprinkler and standpipe systems components.

As-built drawings and hydraulic calculations must be signed and sealed by a Licensed Professional Engineer registered in the state of Florida.”

Section 3 Provide Informational Use Only Drawing

Drawing ACOE 203_28_297 is provided for reference use only and I not part of the official drawings.