

2. AMENDMENT/MODIFICATION NO. Amendment 2	3. EFFECTIVE DATE September 14, 2015	4. REQUISITION/PURCHASE NO. 4200553622	5. PROJECT NO. (If applicable) PCN: 99016
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6. ISSUED BY National Aeronautics and Space Administration John F. Kennedy Space Center Procurement Office, Code OP-ES/Mike Felker Kennedy Space Center, FL 32899	CODE OP-ES-B	7. ADMINISTERED BY (If other than Item 6) Same as block 6 Mike Felker/ (321) 867-1415	CODE OP-ES-B
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8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and Zip Code)	<input checked="" type="checkbox"/>	9A. AMENDMENT OF SOLICITATION NO. NNK15553622R
		9B. DATED (SEE ITEM 11) August 18, 2015
	<input type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE	KRED CODE	

**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 extended,  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 1 copies 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)  
N/A

**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)	

**E. IMPORTANT: Contractor  is not,  is 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.)

The purpose of Amendment 02 is to provide responses to bidder questions, make changes to the solicitation and revise the specification.

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 (Type or print) Gary M. Felker Jr Contracting Officer		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
BY _____ (Signature of person authorized to sign)		BY <u>/s/ Gary M. Felker Jr.</u> (Signature of Contracting Officer)	9/14/15

1. The Government's responses to questions received from potential offerors are provided as an Attachment to this amendment.

2. The following Specification is added as an attachment to this amendment:

**Specification 81K07021 Rev A**, titled "**Replace AHU-16, O&C**", dated 7/20/2015, pages 1 through 37.

3. **Below is a list of the attachments provided as a result of Amendment 2:**

Attachment 1: The Governments responses to questions received from potential offerors

Attachment 2: Specification 81K07021 Rev A, Titled "Replace AHU-16, O&C, dated 07/20/2015, pages 1 through 37.

4. All other terms and conditions of the solicitation remain unchanged.

## ATTACHMENT 1: THE GOVERNMENTS RESPONSE TO BIDDER QUESTIONS

1) REFERENCE - Technical Specification Project Table of Contents

**QUESTION:**

Please provide a specification for Air Handling Units (AHU-16)

**RESPONSE:**

A revised Specification 81K07021 Rev A is posted with Amendment 1.

2) REFERENCE - Launch Equipment Shop, K6-1247 HVAC Upgrade (Dwg. No. 79K39956) sheet A-1, sheet M-6, and sheet M-11

**QUESTION:**

Sheet A-1 (Ceiling Schedule) states for room number 1105 (Men's Restroom) and 1107 (Women's Restroom) that the ceiling type is plaster (do not impact). Sheet M-6 shows removal of existing ductwork in each of these room numbers above the plaster ceiling. Sheets M-11 and M-13 shows new ductwork and hydronic piping in each of these room numbers to be installed above the plaster ceiling.

We assume that the plaster ceiling is to remain existing and to not be impacted during the demolition and new work for the HVAC upgrade in these room numbers. Please advise.

**RESPONSE:**

The plaster ceiling may be removed, if it is first tested for asbestos suspect material per 29 CFR 1926.1101(k)(5)(ii), referenced in Spec. No. 79K39957 Section 028213.00 98 section 1.2. If the ceiling is removed, install new ductwork and restore ceiling to match original ceiling type.

3) REFERENCE - Launch Equipment Shop, K6-1247 HVAC Upgrade (Dwg. No. 79K39956) sheet M-11

**QUESTION:**

Room number 1107 (Women's Restroom) does not show any supply air ductwork to be provided only exhaust ductwork. We assume that this room is not to be provided with supply air ductwork. Please advise.

**RESPONSE:**

Room Number 1107 does not require supply air ductwork.

4) REFERENCE - Drawing 81K07020 O&C, Sheet M-8 and E-5,

**QUESTION:**

During the pre-bid site visit there were discussions of how to approach the temporary ducting due to the lack of space above the ceiling. Can you please verify what routing the contractor to price.

**RESPONSE:**

Contractor to determine best routing in compliance with contract documents. See drawing 81K07020 Sheet M8.

5) REFERENCE – Drawing 79K39956, Sheet M-10

**QUESTION:**

Please clarify NASA's intent for the phasing of chilled water per drawings? There are no temporary connections for the chilled water for maintaining flow while installing the complete mechanical room piping and equipment. How is the facility going to be maintained in a conditioned environment during the phasing of the project per the contract drawings?

**RESPONSE:**

The building and its utilities shall be maintained functional during renovation. Chilled water pumps and new piping to be routed inside mechanical room while existing pumps and pipes are functional. Once new pumps and piping in mechanical room are in place, connect existing lines to new as necessary to maintain building functional during construction phase. Schedule required shut downs with owner.

6) REFERENCE – Specification 79K39957, Section 23 05 48.00 40, VIBRATION AND SEISMIC CONTROLS FOR HVAC PIPING AND EQUIPMENT

**QUESTION:**

Is seismic bracing required for chilled, hot water piping and ducting? If so please define where and what type for bidding purpose

**RESPONSE:**

Seismic restrains are not required.

7) REFERENCE – Specification 79K39957, Section 01 91 13 COMMISSIONING

**QUESTION:**

For bidding purpose how much time will the governments commissioning agent need with the contractor?

**RESPONSE:**

Refer to Section 01 91 13 COMMISSIONING for details on the commissioning and account for associated time to support it.

8) REFERENCE – Specification 79K39957, Section 23 64 26, 3.4.3 Flushing and Cleaning of Piping Systems

**QUESTION:**

Are there available circuits to tie into for contractor provided temporary pumps?

**RESPONSE:**

There is a limited number of receptacles in the building, only one general purpose receptacle in the main mechanical room 1025. Contractor to be responsible to provide temporary power circuits (ex. portable generator) for pumps.

9) REFERENCE –

**QUESTION:**

Should the contractor allow for extended warranty on all installed equipment on this project since the manufacturer only allows for 12 months from start up or 18 months from shipping?

**RESPONSE:**

Warranty begins at Substantial Completion and extends for at least one year, as noted in specifications section 01 91 13 part 1.1, paragraph 1, page 75. Contractor shall extend warranties as necessary to accomplish the work with phased construction.

10) REFERENCE -

**QUESTION:**

Will the contractor be required to maintain the equipment until substantial completion or will the government takeover daily maintenance upon beneficial occupancy of each completed phase?

**RESPONSE:**

Contractor shall be responsible of all work and equipment until the Substantial Completion.

11) REFERENCE -

**QUESTION:**

Please clarify the extent of any Seismic Restraints required on ductwork and piping. The specifications are confusing and do not clearly indicate what is required and where. Please provide that information if required.

**RESPONSE:**

Seismic restraints are not required.

12) REFERENCE -

**QUESTION:**

What is the intended elevation of the 6" Dia. CHWS/R and 2" Dia. HWS/R piping serving the east mechanical room as it crosses the Main Shop Area, Room 1010. There are no offsets shown and this piping appears to penetrate the east mechanical room below the roof line, therefore the piping must be above the overhead crane, which is above the new east mechanical room roof line

**RESPONSE:**

Chilled water and heating hot water to be routed from Mechanical Room 1025 to new mechanical rooms. Contractor is required to coordinate all work with existing conditions and account for elevation changes. Piping must clear overhead crane. Provide offsets and transformations to avoid interference with the building construction, piping and equipment. Make allowances for beams, piping or other obstructions in building construction and for work of other contractors.

13) REFERENCE –

**QUESTION:**

Are all offsets and changes in elevation for the new duct sock clearly shown on the contract documents? Since the contractor does not have the ability to ascertain this information, we must rely on the governments layout...as such, are the drawings accurate in that regard? If not, how should the contractor account for any variances required due to existing obstructions unknown at bid time?

**RESPONSE:**

Contractor is required to coordinate all work with existing conditions and account for elevation changes. Provide offsets and transformations to avoid interference with the building construction, piping and equipment. Make allowances for beams, piping or other obstructions in building construction and for work of other contractors.

14) REFERENCE – Drawing M-18, Detail 9

**QUESTION:**

Drawing M-18, Detail 9 shows a water filter installed between the discharge and suction piping. Is this the same water filter shown on drawing M-3, “Water Filters” schedule identified as WF-1 to be installed in the HW system? Is only one (1) of these filters required on this project?

**RESPONSE:**

Only one filter is required. Filter to be installed on Heating Hot Water System. Sheet M-3 provides scheduled information for the filter and Sheet M-18 provides a piping detail for the same filter.

15) REFERENCE –

**QUESTION:**

Drawing M-19, Detail 3, Keynote 1, makes reference to inertia bases under the pumps, if specified. The isolation specification can be very confusing. Are inertia bases required on the Bases Mounted Pumps? If so, please specify the size required for the BOD Pumps

**RESPONSE:**

Inertia bases are not required and they are not specified. Detail indicates inertia bases where specified. Mount chilled water pump on concrete pads as shown on detail 3, M-19.

16) REFERENCE –

**QUESTION:**

Are auto-flow assemblies acceptable for the coil hook ups on this project?

**RESPONSE:**

No. Refer to Contract Documents for piping details, valves, piping specialties, etc.

17) REFERENCE – Drawing M-19, detail 5

**QUESTION:**

Drawing M-19, detail 5, indicates auxiliary drain pans under the Fan Coil Units. It appears that these Fan Coil Units are in the Mechanical Rooms with no ceilings below them and floor drains in the spaces. Are auxiliary drain pans required if no ceiling is below the FCU?

**RESPONSE:**

Yes, provide auxiliary drain pans regardless of ceiling condition; comply with requirements of Detail 5, Sheet M-19.

18) REFERENCE –

**QUESTION:**

Will the user remove all non essential material and equipment from a particular “phase” as the contractor moves into that area and replace it when the contractor completes said phase?

**RESPONSE:**

Most small portable furniture and equipment will be moved. Large equipment and racks will not be moved.

19) REFERENCE –

**QUESTION:**

Will commissioning be completed on a phase by phase basis or not until the entire project has been completed?

**RESPONSE:**

Commissioning to be done by phases. Building users will need to move into completed areas to allow the continuity of shop workload.

20) REFERENCE –

**QUESTION:**

Will Test and Balance be performed on the entire project or a “phase” by “phase” basis? With that in mind, what about User comfort in the interim?

**RESPONSE:**

Test and Balance to be done by phases. Building users will move into completed areas to allow the continuity of shop workload.

21) REFERENCE -

**QUESTION:**

During the design phase, how did the government intend to maintain a conditioned environment in the facility during construction? The phasing plan indicates the chw pumps are to be demolished in phase 1, thereby effectively eliminating all conditioned air within the facility.

**RESPONSE:**

Shop shall be maintained functional during renovation. Chilled water pumps and new piping to be routed inside mechanical room while existing pumps and pipes are functional. Once new pumps and piping in mechanical room are in place, connect existing lines to new as necessary to maintain building functional during construction phase. Schedule temporary shutdowns with owner.

22) REFERENCE -

**QUESTION:**

Will the government drain the existing CHW system? If not, can the existing CHW be disposed of into the local Sanitary Sewer? If not, what is the estimated volume in the system to be drained for capture purposes?

**RESPONSE:**

Chilled water can be disposed into Sanitary Waste; work is by contractor.

23) REFERENCE -

**QUESTION:**

The government did not include any Architectural or Structural drawings of the existing facility identifying the existing wall types and height above ceiling. For bidding purposes, how should the contractor allow for wall penetrations, fire proofing, sleeving, etc

**RESPONSE:**

Refer to Ceiling Schedule Note 3 on A-1 regarding penetrations through existing walls.

24) REFERENCE -

**QUESTION:**

The government did not include any Architectural or Structural drawings of the existing facility identifying the existing wall types. For bidding purposes, how many core drilled holes will be required? Are core drilled holes required to be sleeved?

**RESPONSE:**

Contractor is required to coordinate all work with existing conditions and determine core drill quantities. Core drilled holes are required to be sleeved where indicated on the drawings or as specified. Refer to Specification Section 07 84 00 Firestopping for additional requirements regarding penetrations.

25) REFERENCE -

**QUESTION:**

The government did not include any Architectural or Structural drawings of the existing facility identifying the existing wall types. For bidding purposes, how many penetrations will require patching and how should the contractor allow for the unknown wall construction?

**RESPONSE:**

Contractor is required to coordinate all work with existing conditions and determine quantity of penetrations.

26) REFERENCE -

**QUESTION:**

The government did not include any Architectural or Structural drawings of the existing facility identifying the various structural changes/elevations within the existing facility. For bidding purposes, how should the contractor account for any elevation changes in the piping and ductwork that may/may not be accurately shown on the contract documents?

**RESPONSE:**

Contractor is required to coordinate all work with existing conditions and account for elevation changes.

27) REFERENCE - Solicitation-Bid Documents: SPECIFICATIONS O-C AHU

**QUESTION:**

Will electrical or Fire Alarm specifications be provided for the O&C AHU portion of the project scope?

**RESPONSE:**

Replace currently posted Specification 81K07021 Rev A. with attached Specification 81K07021 Rev A. The new spec contains the Fire Alarm specifications.

28) REFERENCE - O-C AHU Scope

**QUESTION:**

Will contractor be required to install and remove daily, any floor protection for the AHU removal in the hallways of the O&C Building?

**RESPONSE:**

During AHU removal, hallway floor surface protection shall be installed.

29) REFERENCE - O-C AHU Scope

**QUESTION:**

Will the project be allowed to be phased in cooler months, and eliminate the need for temporary cooling to the facility?

**RESPONSE:**

Temporary cooling is required.

30) REFERENCE - O-C AHU Scope

**QUESTION:**

IS there any known asbestos/ lead or other HazMat abatement to be performed a part of this scope?

**RESPONSE:**

Asbestos abatement is known to be performed as a part of this scope. Other materials may be present, review contract documents for specifics.

31) REFERENCE - O&C AHU and LES Scope

**QUESTION:**

Will KSC/NASA be providing the contractor with dumpsters or containers, for any materials, debris, recyclables that are to be turned-over to the base?

**RESPONSE:**

The government does not provide dumpsters for recyclable metals, equipment, etc.

32) REFERENCE - O&C AHE and LES Scope

**QUESTION:**

Who will be responsible for providing and performing independent commissioning/ final inspection of each project?

**RESPONSE:**

The commissioning agent, not yet on contract, will be responsible for providing and performing independent commissioning/ final inspection of each project.

33) REFERENCE - O&C and LES Scope

**QUESTION:**

Is the intent to award one portion of this scope, or the entire scope of both project locations?

**RESPONSE:**

The intent is to award the entire scope of both project locations pending a successful bidding process.

34) REFERENCE - O-C AHU

**QUESTION:**

Will contractor be allowed to use local elevators in the O&C Building to install AHU components?

**RESPONSE:**

Yes, the maintenance elevator located nearest the O&C AU16 mechanical room will be available to install AHU components.

35) REFERENCE - LES Shop Scope

**QUESTION:**

Who will be responsible for relocating, storing and protecting personnel, existing furniture, equipment in the LES Building?

**RESPONSE:**

LES personnel will move the existing equipment and furniture that can be moved. The contractor must plan to work around work racks and heavy equipment that can't be moved.

36) REFERENCE – Specification 79K39957, Section 23 64 26, 2.15.11 Flexible Expansion Loops

**QUESTION:**

Please confirm that flexible expansion loops are not required. There are not shown on the drawing and the required distances are not in the specifications.

**RESPONSE:**

Flexible expansion loops are not required on the project.

37) REFERENCE – Specification 79K39957, Section 23 64 26, 3.1.21.9 Pipe Guides.

**QUESTION:**

Please confirm that pipe guides are not required. There are not shown on the drawing.

**RESPONSE:**

Pipe guides are not required on the project.

38) REFERENCE – 79K39956, Sheet M-3, Pump Schedule, Specification 79K39957, Section 23 64 26, 2.16.5 End Suction Centrifugal Pumps.

**QUESTION:**

The pump schedule indicated basis of design being Bell & Gossett but the specs do not list B&G as a manufacturer. Please clarify.

**RESPONSE:**

Bell & Gossett is an acceptable manufacturer in addition to those listed in specification 23 64 26, 2.16.5.

39) REFERENCE – Drawing 79K39956, Sheet A-1, note 1, & Sheet E-7 and E-8.

**QUESTION:**

A-1 note 1 states to remove dropped ceiling as required and assume that 20% ceiling tiles will require replacement. E-7 and E-8 states that all dropped ceilings are to be replaced. Please clarify.

**RESPONSE:**

The contractor shall remove dropped ceilings as required to perform work, the ceiling grids shall be replaced and the ceiling tiles shall be reinstalled as per drawing sheet A-1, using new tiles to replace existing tiles that are damaged, discolored or in poor condition.