ADDENDUM NO. 1

TO THE

PLANS AND SPECIFICATIONS

FOR

JEFFERSON LAB

TECHNICAL ENGINEERING & DEVELOPMENT FACILITY (TEDF TWO)

Newport News, Virginia

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Architects.Engineers.Interior Designers.Planners
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215-923-2020

Addendum No. 1
Project No. 20080400
June 18, 2010

The following changes shall become part of the Contract and shall supersede anything called for previously in the Specifications or shown on the Contract Drawings with which they may be at variance. This Addendum shall be a part of and attached to the Specifications.

I. BIDDERS' QUESTIONS AND EWINGCOLE RESPONSES

Bidder Question 1

Question: Under section 2.2 A-15 states crane shall be designed to operate between 32 to 140 degrees F. A Crane Supplier is concerned that this is an extremely hot operating temperature. Can you please verify with the end user that it is required.

Response: The crane shall be designed to operate between 32° F to 140° F or 55° F to 140° F.

Bidder Question 2

Question: Drawing E2L.2.1.A and E2L2.2.A refer to a detail on E6.1.2 for "vertical lighting in this area". The detail is missing from E6.1.2.

Response: See details 6 and 7 / E6.1.2 ----- enclosed as part of this Addendum.

Bidder Question 3

Question:

1. Based upon all the additions and modifications to the existing fire alarm, who will be providing programming of the NCC Network Command Center that is currently at Jefferson Labs? Is this to be done under this contract?
2. The NCC Network Command Center has a graphic layout of floor plans for each building. Who will be creating and importing them into the NCC Network Command Center? Who's responsible for the programming of devices and importation of said floor plans? Is this to be done under this contract?
3. Who will be providing the fiber equipment and network needed for the TED Building?
4. Will there be an exception for the installer in lieu of NICET certification? Is it acceptable to provide NICET supervision and review of electrical installation?

Response:

Please review the questions from Mortenson below regarding the fire alarm system. The fiber to the guard house will be provided by JLAB under the Near Term Communications project which is happening in conjunction with the EPP Phase 1 project.

1. NCC programming and graphics for the existing fire alarm shall be provided as part of this contract by the fire alarm vendor.
2. NCC programming and graphics shall be provided as part of this contract by the fire alarm vendor.
3. The owner will be furnishing these items.
4. No exception permitted. Minimum NICET III is required as requested by the client.

Bidder Question 4

Question: In section 22 60 00, page 11 of 33, paragraph 2.7 under the Low Conductivity Water what is the piping class?

Response: Refer to the pipe matrix for piping class illustrated on drawing P5.3 dated 5.24.10.

Bidder Question 5

Question: On drawing TLR-P2.4.D there is a note at columns 11 & G that says to look at drawing P-4.1.3. We do not have this drawing, will this be issued in the addendum?

Response: Reference should read P-41.2.

Bidder Question 6

Question: The Pre-Renovation Hazardous Materials Survey prepared by Greenhorne & O'Mara should be issued as a bidding document for Section 02 82 13 work.

Response: Attached is G & O's Pre-Renovation Hazardous Materials Survey to be included with Section 02 82 13.

Bidder Question 7

Question: Section 26 12 00 Medium Voltage Transformers Paragraph 2.2; Item B. Multiple manufacturers are listed as acceptable as a supplier of this equipment. FM (Factory Mutual) Approved limits the list to Cooper as the manufacturer. Is FM Approval a critical requirement?

2.2 PAD MOUNTED, LIQUID-FILLED TRANSFORMERS

A. Description: ANSI C57.12.13, ANSI C57.12.26, IEEE C57.12.00, pad-mounted, 2-winding transformers. Stainless-steel tank base.

B. UL listed, TP-1 rated.

Response: Engineer spoke with Owner regarding this issue. He agreed that the FM requirement severely restricts the manufacturers available for the pad mount transformers. Thus, he stated that it is acceptable that the FM requirement can be dropped; however, the transformer must be UL listed and shall be installed in accordance with FM standard 5-4.

Bidder Question 8

Question: Are we to provide the male and female / cords for the devices scheduled on page Eg.2, and shown on drawings e2p2.1.a - e2p2.1d?

Response: Per specifications section 26 27 26, Article 2.15 for the pin/sleeve disconnect devices, the contractor shall provide both the plug and receptacle for each device scheduled on drawing EG.1. The power cords for connection of the Owner furnished equipment to the power receptacle (either pin/sleeve or locking receptacle) shall be provided by the Owner.

Bidder Question 9

Question: Drawing E0.2.3 and Panel Schedules. Panel Schedules for DP-LAB-9, AP-LAB-15, DP-LAB-10, AP-LAB-16, DP-LAB-6, AP-LAB-12 are requested.

Response: See supplemental panel schedule included in spec. section 26 06 00 enclosed as a part of this Addendum.

Bidder Question 10

Question: In the specifications there is no section 27 which is the telecommunications work for the interior. Is this information available?

Response: Due to the changes involved with the Near Term Communications packages and the ongoing UIM infrastructure efforts, the IT risers and specifications for the TEDF phase 2 project have been delayed. They will be issued in Addendum No. 2 planned to be issued on June 25th.

Bidder Question 11

Question: Division 12, section 12 24 13:

In the specs 12 24 13 2.1, A.1 it calls out roller shades in all exterior windows of rooms and spaces shown on the drawings. Need clarification that all window are to receive roller shades not just new windows that have call outs for window types?

Response: The windows that are to receive the roller shades are tagged with the WT1 tag on the finish plans in the interior drawings. Please see TLR-D1.1.1G, TLR-D1.1.2G, TED-D1.2.2A, TED-D1.2.2B & TED-D1.2.2D. dated 5/24/2010.

Bidder Question 12

Question: Specification Section 13 34 19 - Metal Building Systems, Chiller Building

1. The drawings and specs on the chiller don't match. Which one do you want to apply?
2. The weight of the mechanical piping is not indicated. This is needed for the indicated support beams and roof load.
3. Specs call for: R19 Fiberglass insulation in wall, R13 Fiberglass insulation in roof.
   This is non-typical as most of the heat load will occur through the roof so those values may need to be reversed.
4. Plans call for: R10 insulated metal panel on wall, R10 insulated metal panel on roof.
   Typically when someone says a "insulated metal panel" they mean a foamed metal panel, not fiberglass insulation and separate metal panel, but this may or may not be the intent. Either way the R value does not match the spec.
5. The specs call for a 16" standing seam panel at 1/4" in 12" slope. The 16" standing seam panel is an "architectural panel" and would typically not be installed at 1/4" in 12" because one would want to see it (3-4 in 12). Typically what is used on this kind of building
   and roof (in standing seam) is a 24" "bellows type".

Response:

1. Please see revised Drawing A8.2.1 and revised Specification Section 13 34 19 attached to this Addendum.
2. The weight of piping should be based on Schedule 40 Piping, full of water. Reference Drawing TLR-M2.1.0 for pipe sizes/locations.
3. The drawings and specification has been revised to indicate R-19 for roof and R-13 for walls.
4. The drawings and specification has been revised to indicate metal wall siding panels.
5. The slope has been revised to indicate a slope of 1” in 12 feet, with a 24” standing seam roof panel. Please see revised Drawing A8.2.1 and revised Specification Section 13 34 19 attached to this Addendum.

Bidder Question 13

Question: See HVAC Questions in Bidder Question 15.

Response: See HVAC Responses in Bidder Question 15.

Bidder Question 14

Question:

1. Problem/Conflict: 13 21 13 - 1.1.A: "Provide…testing, certification required for complete installation of cleanrooms."

    - 13 21 13 - 1.3.A: "The rooms are to be designed, tested and certified in accordance with IES RP 006, ISO209, and Federal Standard 209E with acceptable limits."
    - 13 21 13 - 1.4.D: "Testing and Certification: Comply with FED-STD-209E and ISO/TC209 Section (14644-1)."
    - 13 21 13 - 3.8.A: "At the completion of the ceiling installation, with all components installed and wall system in place, an independent certifier under a separate contract shall conduct a series of tests to ensure that the cleanroom complies with owner's specifications."

    This does not provide enough information to subcontract a cleanroom certification agency.

Response: Clean room installation contractor should be responsible for the certification testing in addition to the performance testing required in spec section 01 91 00 - Testing, Adjusting and balancing for HVAC.

Bidder Question 15

Question:

PLUMBING:

1. Plumbing piping schedule drawing PS.3 indicates compressed air, nitrogen gas, argon gas and helium gas to be copper tubing type K. Clean Utilities piping schedule drawing PS.4 lists those same systems as type 316 stainless tubing. The System Code is identical on both of the schedule drawings, and the plan drawings do not differentiate between the two materials. Where does the material change for these systems?
2. Drawing TED-P2.4.A shows BFP #7 on the water line to humidifier. Schedule drawing P3.1 stops at BFP #6. What is the spec for this backflow preventor?
3. Is there a material difference between CA and CA 120#? These two system names show on the plan drawings, but only CA appears on plumbing schedule drawings.
4. Drawing TLR-P2.2.D, note 3 indicates oxygen sensors are required inside of the lab spaces, with the sensors being provided by the Owner. How many sensors are required in each lab space, or if easier, how many totally will the Owner provide?
5. Drawing TLR-P2.2.D makes reference to a drawing P4.3 for continuation of services down a utility column. (column reference D/13 and D/15) Per the drawing index PG.1, no such drawing has been issued. Is this drawing to be issued or is this reference in error?
6. Drawing TLR-P2.2.D shows an item tagged GWH-4 near countertop sink CTS-B. No such tag is indicated on the schedule drawings. What is this?
7. Drawing TL-P2.2.D also shows helium gas manifold GM-5. Gas manifold schedule only shows up to GM-3. What is the spec for this manifold, same as GM-3 for helium?
8. Drawing TLR-P2.1.D shows lab sink LS-A (I assume it is supposed to be LS-1 per schedule). The pressure service drawing for this same area (TLR-P2.2.D) indicates the fixture to be CTS-B. Which is correct?

HVAC:

1. Drawing TLR-M2.1.2B2 shows airflow measuring stations tagged as 58-AFS-3-8 and 58-AFS-3-9. These are not scheduled and do not appear on the airflow diagrams. Please confirm that these are required.
2. There are duct smoke detectors tagged as aspirating type on the mezzanine detail drawings, and also duct smoke detectors tagged as spot type on the airflow diagrams. Are these two separate smoke detectors in similar locations, or should the spot type be changed to aspirating type where they serve the cleanroom spaces?
3. 25 09 00 .1.1.B Page 3 states. "All validateable sensors used in facilities that measure critical parameters shall be provided with 3 point factor calibration certification. All sensors shall be NIST traceable." What parameters on the systems are determined to be critical? If the sensors are not serving critical parameters is NIST traceable sensors required.
4. 25 09 00 .2.4.D.4 Page 11 states. "Binary Outputs: Provide on-off or pulsed low-voltage signal, selectable for Normally Open or Normally Closed operation with three position (On-Off-Auto) override switches and status lights. To what items and controllers do these features apply? Most DDC controllers do not have an override. Are there specific items that need to have this override application added to the control functions?
5. 25 09 00 .2.4.D.5 Page 11 states. "Analog Outputs: Provide modulating signal, either lov voltage (0-10 vdc) or current 94-20mA with status lights, two position (auto-manual) switch, and manually adjustable potentiometer. To what items and controllers do these features apply? Most DDC controllers do not have an override. Are there specific items that need to have this override application added to the control functions?
6. Concerning Section 25 09 00.2.5.A.2 Page 12, Are local keypad and displays required on all DDC controllers that control Mechanical Air Handling Units and Central equipment? What controllers or equipment would require a local display?
7. Concerning Section 25 09 00 2.9 Alarm Panels, where are these panels required and what alarms would be required on these panels. I do not find an application that defines these panels.
8. Concerning 25 09 00.2.10 Electronic Sensors Page 16 and 23 09 00.5.B Thermistor Space Temperature Sensors, where are these applicable? The rooms that are served by VAV boxes, FPVAV boxes and Heat Pumps are application specific controllers and can be provided with a digital display in each room. Are Digital Displays required on other room sensors and if so where are these located?
9. Section 25 09 00.2.1.E.1 a. through f. lists several accuracy levels for differential pressure transmitters. The price variance in these item is considerable. What applications are the various levels of sensor required. I find only (1) application for the High Accuracy Differential Pressure Sensors shown on the M7.6 detail 1, detail 3 and detail 4. What critical areas are applicable to the High Accuracy Sensors? What are the applications for the Midrange and Low Range transmitters?
10. 25 09 00.2.14.B.1.a Belimo Controls is specified manufacturer, and Run Time 12 seconds open, 5 seconds closed is specified in para 12.The Belimo representative advises that they do not provide this actuator run timing for proportional actuators of any size. Please confirm what application was intended for this actuator and what run time is required. Is it intended that the Supply and Return Flow controls for dampers have a fast acting actuator? Other manufacturers have fast acting actuators. Is an alternate vendor acceptable for applications of fast acting actuators. Where are these applied to the systems on this project? TAC is a manufacturer of actuators felt to be equal to Belimo. Are TAC actuators acceptable for this project for Dampers and Valves?
11. Concerning Section 25 09 00.2.15.C.1 Terminal Unit Control Valves, are ball valves acceptable for terminal equipment control? Is spring return required on VAV's and FPVAV control valves. Is drive open/drive closed (Floating) proportional control acceptable?

12. Concerning Section 25 09 00.2.17.B, Air Flow Measuring Stations, the air flow station schedule on TLR-M4.1.4 shows the Supply Flow and Return Air Flow stations in the schedule. The Supply stations indicate that they have a reheat coil. Drawing M7.3 detail #4 and #5 indicate that these items are Air Monitor Stations and are to be furnished as an assembly. I cannot find the any manufacturer that provides these size stations as an assembly and none that would provide a reheat coil as a part of the assembly. Do these assemblies require any factor NIST certification as an assembly? Do you have a vendor that would be approved to for these assemblies? Can the flow station, coil and damper be separate items mounted in the ductwork by Div 23 contractor as long as required distances are available for accurate measurement?
13. Concerning Section 25 09 00.3.3. E, F G, the specification directs Division 25 to Dvision 26 Section Raceway and Boxes, Division 26, Section Low Voltage Electrical Power and Division 26 Section Communications Horizontal Cabling. These Division 26 sections seem to infer that all wiring in Mechanical Rooms is Rigid Conduit ¾" minimum. This would apply to the equipment mezzanine as well. In concealed spaces such as above ceiling where accessible EMT is required. A majority of our wiring is Low Voltage Class 2 and less than 50 Volts. Is the requirement for Rigid Conduit in Mechanical Equipment Rooms and the Mezzanine applicable to the DDC control System. Can we use ½" minimum to end devices since many of our devices have ½" Knockouts. Can EMT be used on the Class II control wiring in these mechanical spaces? In areas that are similar to office spaces in the TD building and the 58 building where there is a drop ceiling in areas served by the Heat Pumps and VAV boxes these items are served by Application Specific DDC Controllers. These areas are concealed but accessible and require a communications trunk and room sensor wire to each piece of equipment. Can plenum cable be run without raceway Conduit or EMT in these concealed but accessible areas The plenum cable would be run with other trades for protection and reduced visibility, properly supported, installed in a neat an workman like manner and run horizontal and at right angle to the building structure.

Response:

PLUMBING:

1. On drawing TLR P6.2.B, indicates where the clean piping is to be used. Refer to piping braches where tags are indicated. Clean piping transition begins just above column line M.6.
2. BFP shall be the same as BFP #5.
3. The compressed air pipe material is the same.
4. Please allocate approximately 15 solenoid valves.
5. Reference should've been referring to the flow diagrams, drawing P5.6.1,P5.7, p5.8.1, P5.9.
6. This item is an electric water heater Chromonite SR-20L 277 VOLTS
7. Yes, the same as helium.
8. CTS-B is the correct specification that should be used. Refer to specification 224000

HVAC:

1. Yes, furnished by Div. 25 as shown on 1/M7.4 and installed by Div 23 in locations shown on TLR-M2.1.2B2.
2. Yes, these are required as shown on the mezzanine detail drawings. Reference Drawing FA5.1 (Note 18) and TLR-FA2.2B.
3. Critical parameters are controlling sensors for space temperature, space humidity and space differential pressures. Validateable sensors are required on systems serving Production Chemistry (AHU-1) and Production Cleanrooms (MAU-1, AHU-3-1 to 3-7, 3-8 and 3-9). NIST traceable sensors are not required if the sensors are not serving the critical parameters.
4. Damper actuators and valve actuators.
5. Damper actuators and valve actuators.

6. Yes, for DDCP's on main equipment systems.
7. Not Required.
8. Applicable for space temperature sensors. All space temperature sensors require a digital display.
9. Room differential pressure transmitters are required to be high accuracy as noted on drawings. Otherwise, low range is acceptable.
10. Alternate manufacturers are acceptable provided they meet performance characteristics specified. Run time shall be selected for damper/valve actuator to suit application as indicated in sequence of operation. Fast acting is not a requirement.
11. Ball valves are acceptable for NPS 2" and smaller. Floating proportional control is not acceptable.
12. No certification is required.

    Intent of "assembly" was that the sheet metal contractor would assemble these components either in the field or in the shop. Flow station, coil and damper can be separate items mounted in ductwork.

    Flow stations for SEF-1, 2 and 3: Air Monitor provides an option for PVC on the Volu Probe-SS airflow station.
13. Provide rigid conduit in mechanical equipment rooms and mezzanine below 10 feet after finished floor elevation. Otherwise, EMT may be used.

    Conduit size: 1/2" conduit is acceptable to individual devices only. ¾" minimum conduit is required for conduit branches and runs containing wiring for multiple devices.

    In accessible ceilings (office areas): plenum cable is acceptable using appropriate low voltage supports, hooks, etc.

Bidder Question 16

Question:

<u>Section 09 67 23 Resinous Flooring</u>

1. Page 4, Item 2.1.A.1.a of the Specification refers to the various systems which are to be used for E1-E5. However, the DG drawings does not reference the same systems for E1-E5 as the specification. For example, the specification calls for E1 to be Stonchem 855 while the DG drawing calls for E1 to be Stonchem X02 with mesh underlayment; the specifications calls for E2 to be Stonchem 802 and the DG drawing calls for Stonchem x02 without mesh underlayment and so on for E4 and E5. Please provide which source is the correct listing of products desired.
2. Sheet TED D1.2.1.A indicates VCT in Corridor 1520 – should this area be SC2 to remain consistent with the adjoining areas?

Response:

1. Please refer to drawing DG for finishes E1-E5.
2. Corridor 1520 to be SC2 with wall base B4.

Bidder Question 16 – R1

Question: Unfortunately, the products listed on Drawing DG are not identifiable; that is to say that Stonchem X02 is not a system. Stonchem systems are categorized by a three number identifier such as Stonchem 855 or Stonchem 802 (as listed in the specification) not X02 or X 78 as listed on the drawing.

Response: Please refer to the specifications for products associated with finish designations E1-E5. See revised drawing DG and specifications section 09 67 23 - Resinous Flooring enclosed as a part of this Addendum.

Bidder Question 17

Question: The lab gases were originally specified to be copper and now they carry two specifications. The lab gases in the clean utilities schedule now has to be S.S. pipe and fittings. Will you please direct us to the plan or plans which identify which schedule applies to which location. The system identifiers are the same not given any variation to the different schedules.

Response: On drawing TLR-P6.2B it indicates pipe specification on the supply lines that reference the clean room matrix and specifications. Anything in the T-shape and clean rooms should follow the clean room specification.

Bidder Question 18

Question: Specification Section 13 34 19 - Metal Building Systems, Chiller Building

The specification calls for a SP finish on the roof and wall panels. However, the intent is for credit for Roof Heat Island effect but no SP colors meet the minimum SRI of 78. Only Kynar finish Snow White meets this (79).

Response: The roof panel finish will be Kynar 500 coating Solar White. Please see revised Specification Section 13 34 19 attached to this Addendum.

Bidder Question 19

Question: Attached is information regarding a product substitution for the metal stairs on TEDF Two. Pacific Stair Request for Substitution.

Response: Provide substitution request for evaluation.

Bidder Question 20

Question: Are there any detail drawings available for the two removable stairs in the Process Support Area? They are both labeled “Removable Steel Stair, Railing and Landing” on Drawing TLR-A3.1.2.12. Since this is a Lab environment, with very specific requirements in this area (such as the “Acid Resistant Fiberglass Grating” beneath these stairs), it’s a bit surprising that there don’t seem to be any details provided for these stairs in this “final” drawing set. Last time we provided some budget numbers for these stairs as an Alternate Add.

Response: Stairs shall consist of 2” deep VI-CORR HLC molded grating and treads (grating). All steel shall be coated in accordance with section 09 96 35. Stair shall be posted up from steel beams supporting grating platform illustrated on drawing S4.7. For additional information, see Specification

Section 05 50 00.

Bidder Question 21

Question: Sheet E2P.1.1.D, near G-11 column line, it shows a variety of outlets mounted on some casework. There is a note that states "Utility Service Column by Lab Casework Manufacturer (typ)" The note does not make any reference to the devices themselves. Are we anticipated to provide the devices accordingly for these locations?

Response: The devices are to be provided by Division 26 and located within the laboratory utility column as noted on the drawings. Refer to the architectural detail plans for the details of the columns. The column is called out as it is not provided by Division 26.

Bidder Question 22

Question: In the Bentonite Waterproofing Specification Section 0071700, it looks like the Drainage Composite System was taken out of the Spec. The new cut sheets provided show the drainage system in place. Will you confirm that we are to include the drainage system per the cut sheets?

Response: Yes, please include the drainage system as per the cut sheets.

Bidder Question 23

Question:

I. Building 58 Addition

A. In rooms 1510, 1533, & 2527 three colors of VCT are indicated, but no pattern is shown on the interiors drawings. These rooms were estimated as receiving all VCT1.

B. In room 1205, three colors of Marmoleum Dual Tile were specified, but no pattern is shown on the interiors drawings. Room was estimated as receiving all RF1.

II. Building 58 Renovation

A. In room 1214 three colors of VCT are indicated, but no pattern is shown on the interiors drawings. Room was estimated as receiving all VCT1.

B. In rooms 2200, 2210, 2220, 2240, & 2250 no material is specified for these corridors. These rooms were estimated as receiving the same materials as the large open office located at plan northwest in the building.

C. Room 2241 has no material selections listed, as such this room is not included in the estimate.

III. TED Building (New Construction)

A. In rooms 2555, 2574, & 2575 no materials were listed; as such these rooms are not included in the estimate.

IV. General

A. There is no mud-set figured in this job because in reviewing the structural drawings no slope or recess could be determined.

B. No epoxy mortars and/or grouts are figured in this estimate.

C. Waterproof/Anti-Fracture membrane has been figured for floor tile only.

D. Discrepancy between finish legend and floor finish. T4 in finish legend is called out as not being used and there is no product available. Floor finish plans call out for T4 in some bathrooms and T4/T2 in other bathrooms. Has all wall tile been changed to T2? Please clarify.

E. I wanted to confirm Height of wall tile whether it be Full height floor to Ceiling or what height Wainscot is desired? Please advise.

Dal-Tile Proposed Alternates:

T1: Dal Tile Metal Effects 13x20
T2: Dal Tile continental Slate 12x12
T3: Dal Tile continental Slate 12x12
T4: Dal Tile continental Slate 12x12
T5: Dal tile Fabrique 12x24
B10: Continental Slate Cove base 6x12

Response:

I A. Estimate pattern consisting of the following: VCT1 – 50%, VCT2 – 25%, VCT3 – 25%. – Drawing indicating specific pattern will be provided at a later date once approved by owner.
I B. Estimate pattern consisting of the following: RF1 – 50%, RF2 – 25%, RF3 – 25%. Drawing indicating specific pattern will be provided at a later date once approved by owner.
II A. Estimate pattern consisting of the following: VCT1 – 50%, VCT2 – 25%, VCT3 – 25%. Drawing indicating specific pattern will be provided at a later date once approved by owner.
II B. Areas marked 2200, 2210, 2220, 2240 and 2250 are to receive same finishes as adjacent open office areas
Flooring – C3
Wall Base – B1
Walls – P1
Ceiling – ACT1 and/or P2, see finish schedule for composition
II C. Finishes for room 2241 are to be as shown on drawing TLR-D1.1.2G dated 5/24/10
III A. Finishes for rooms 2555 and 2575 are shown on drawing TED-D1.2.2A dated 5/24/10. There is no room number 2574.
IV A. Yes
IV B. Epoxy grout/mortar to be utilized in all tile installations
IV C. Yes
IV D. Finish designation T4 is not used. All wall tile is to be T2 as shown on finish drawings dated 5/24/10
IV E. Wall tile to be full height in toilet rooms

Tile Alternates: Please price tile finishes as specified.

Bidder Question 24

Question: Could you please clarify what is the correct tray layout? Sheet E2.1.2.B shows one routing and sheet E2P.2 shows a different route. Should both be used or which one?

Response: Use the layout on drawing E2.1.2.B. The layout indicated on drawing E2P.2 will be removed under this Addendum.

Bidder Question 25

Question: Sheet E2.1.1.A, at approximately column M.23, there is a note that refers to a detail 2/E2.1.1.A. This detail is not present on this sheet. Is this something that is coming out to clarify via addendum? Please advise.

Response: That detail is supposed to be a conduit rack elevation for the OSP cables. See revised drawing enclosed as a part of this Addendum.

Bidder Question 26

Question: Additional information is requested on the Cleanroom Wall System from the specified manufacturer (Plascore), so they can complete their proposal for the Cleanroom Facility (for the Cleanroom Walls designated as type # CRW-3) at the Jefferson Labs Project. The Request for Information is as follows:

1. Which chemicals will be used and in what concentration levels?
2. What ASTM Standard for chemical exposure do the materials have to meet?
3. Are there any pre=approved materials that will meet the chemical resistance requirements?

Response: All cleanroom walls to receive the manufacturer standard finish.

Bidder Question 27

Question: In reference specifications Section 26 05 19, Paragraph 2.1; F

1. Please clarify where copper and aluminum cables are required or can be used?
2. Please clarify use of MC Cable over the scheduled Wire (Cu) & Conduit as equipment and panelboard feeders.

Response: See revision for Specification Section 01 23 00 (Alternate 11) enclosed in this Addendum.

Bidder Question 28

Regarding Spec. Section 41 22 00 – Hoists and Cranes (pages 1 through 5), we are submitting this Request For Information as follows:

1. Are the crane electric motor <u>controls and enclosure</u> to be installed at <u>floor level</u> in <u>Room 1612</u> ? Sheet TED-A1.2.1C has a note labeled "Crane Cont. Room" adjacent to the symbol for Room 1612. If that is the case, that will cost a lot of money to pipe & wire all the control and power leads over to the crane runway.
Suggestion: Locate the controls and enclosure at floor level at one end of the runway like we just did for the 5-ton crane installation at Jeff-Lab's "CHL" building. That way one need only pipe & wire the power leads from the power source over to the runway.

2. Is it necessary to have the crane electric motor controls at floor level? (If not necessary, we suggest the crane controls be mounted on the crane walkway and a conventional 4-conductor runway conductor system be provided, either festooned or the "Duct-O-Bar" type.) Please advise.

3. Part 2.2A.12 states the crane is to have two (2) walkways, one on each girder.

A) Are two (2) walkways necessary?
B) Are they both the full-length of the crane girders?

4. Is the hoist to have:
   A) Double-reeved cables with left & right-hand drum grooving for true vertical lifting?
   B) Two (2) brakes: Electric motor brake and Mechanical load brake ?

5. Sheet TED-A1.2.1C indicates a crane access ladder going up the North wall. Is there to be a self-closing gate in the crane bridge walkway handrail to accommodate personnel access onto the crane?

Response:

1. No, the crane electric motors and controls may be mounted on the bridge, accessible from the man walk. Refer to specification section 41 22 00 paragraph 2.2 C. 1.
2. No, the crane electric motors and controls may be mounted on the bridge, accessible from the man walk. Refer to specification section 41 22 00 paragraph 2.2 C. 1.
3. A) Two man walks are required if crane electric motor controls are installed on both sides of the crane girders. If all crane electric motor controls, frequency drives and remote controls can be located in one area , a man walk is required only in the electric controls area. The man walk must provide sufficient space to permit two mechanics to work safely with tool bags and replacement parts like a frequency drive. Extend the man walk 3' past the edge of the end electrical enclosure (both ends)
   B) See answer to 3.) A) above.
4. Refer to specification section 41 22 00 for specific crane requirements.
5. The ladder and man walk configuration must be designed to satisfy the fall protection requirements of 29 CFR 1910 Subpart D Walking-Working Surfaces for the crane parked adjacent to the ladder and when the crane is in motion being operated by service technicians on the man walk away from the ladder.

II. NEW SPECIFICATION SECTIONS

The following new specification sections are hereby issued this date:

26 06 00 - Schedules for Electrical

III. REISSUED SPECIFICATION SECTIONS

The following new specification section is hereby reissued this date:

01 23 00 - Alternates
02 46 50 - Auger Cast In Place Piles
09 67 23 - Resinous Flooring
09 91 23 - Interior Painting
13 34 19 - Metal Building Systems – Chiller Building

IV. DRAWING CHANGES

DG

1. Revised finish schedule.

Drawing No. A8.1.2

1. Revised finish legend to indicate metal siding in lieu of insulated metal panel.
2. Revised finish legend to indicate wall insulation R –value to be 13.
3. Revised finish legend to indicate roof insulation R –value to be 19.

Drawing No. S2.1.1.B

1. Revised geometry of the new concrete shear wall along column line 16, as requested.

Drawing No. S2.1.1.D

1. Revised geometry of the new concrete shear wall along column line 16, as requested.

Drawing No. S2.1.2.D

1. Revised geometry of the new concrete shear wall along column line 16, as requested.

Drawing No. S2.1.2.G

1. Revised HSS plan dimension for the South Link per RFI #14.

Drawing No. S2.1.4.B

1. Revised geometry of the new concrete shear wall along column line 16, as requested.

Drawing No. S3.1

1. Removed New “L5x3” below existing W10 between column lines K and L.

Drawing No. S3.2

1. Revised new concrete shear wall geometry in plan detail 6, as requested.

Drawing No. S5.4

1. Added details 4 and 5 for special concrete coating requirements.

Drawing No. E2.1.1.A

1. Added conduit rack detail.

Drawing No. E2P.2

1. Deleted cable tray system
2. Revised power equipment layouts.

Drawing No. E2L.2.1.A
1. Revised cross reference to Lobby 1501 lighting details.

Drawing No. E2L.2.2.A
1. Revised cross reference to Lobby 1501 lighting details.

Drawing No. E4.1.4A
1. Revised Luminaire Schedule.

Drawing No. E6.1.2
1. Added details 6 & 7 for Lobby 1501 lighting.

V. NEW DRAWINGS
NONE

VI. REPORTS
1. Pre-Renovation Hazardous Materials Survey

END OF ADDENDUM NO. 1