

Addendum #1

23 August 2024

This Addendum modifies, amends, and supplements designated parts of the Contract Documents, Specifications and Drawings for:

Energy Efficiency Upgrades
Maine Department of Marine Resources Laboratory
194 McKown Point Road
West Boothbay, Maine 04575

This addendum is to be added and become part of the Contract Documents and modifies the original Project Manual/Specifications and Drawings dated August 5th, 2024. Acknowledge receipt of this addendum in the space provided on the Bid Form. Failure to do so may subject the bidder to disqualification.

It shall be the responsibility of the Contractor to notify all Subcontractors and Suppliers for various portions of the work of any changes or modifications contained in this Addendum.

Specifications:

SPECIFICATION SECTION 072100 THERMAL INSULATION

1. **DELETE** paragraph 2.3 LOOSE-FILL INSULATION.

SPECIFICATION SECTION 232113 - HYDRONIC PIPING

1. **CHANGE** 2.1.A.3 temperature from “150 deg F” to “140 deg F”
2. **CHANGE** 2.1.A.4 temperature from “180 deg F” to “140 deg F”

Drawings:

DRAWING AE503

1. **Detail 5: CHANGE** note text “MINERAL WOOL LOOSE FILL INSULATION” to MINERAL WOOL BATT INSULATION”
2. **Detail 4: DELETE** the note that points to empty space below the vapor barrier that states “12” MINERAL WOOL BAT INSULATION, PLACE PERPENDULAT TO ROOF TRUSS SPAN OVER EXISTING INSULATION-TYP.”

DRAWING E-001

1. **CHANGE** Keynote 3 text to “AHU-E1 TO BE REMOVED UNDER BID ALTERNATE 2, AHU-E1 DISCONNECT LOCATED ON AHU-E1 UNIT. REMOVE AHU TRANSFER SWITCH UNDER BID ALTERNATE 2. DE-ENERGIZE CIRCUITS 4A IN MCC1 AND 8,10,12 IN PANELBOARD EDP41ML TO REMOVE AHU TRANSFER SWITCH. VERIFY ALL FEEDS HAVE BEEN DE-ENERGIZED PRIOR TO AHU TRANSFER SWITCH REMOVAL. REFER TO DETAIL 2 ON SHEET E-601 FOR WIRING DIAGRAM”
2. **CHANGE** Keynote 5 text to “REMOVE EXISTING DUCT SMOKE DETECTOR AND REMOTE INDICATOR AND SALVAGE FOR REUSE UNDER BID ALTERNATE 2.
3. **DELETE** Keynote 4 from AHU-E1.

DRAWING E-101

1. **ADD** text “(THIS SHEET ONLY)” after DRAWING KEYNOTES

DRAWING M-001

1. On EXPANSION TANK SCHEDULE, **ADD** “NOTE 1: PROVIDE EQUIPMENT PAD, PRE-ENGINEERED HDPE SECURED TO THE CONCRETE FLOOR. BASIS OF DESIGN DURAPLAS - POLAR PAD.
2. On EXPANSION TANK SCHEDULE, **ADD** “1” in notes column for EXT-1 and EXT-2.
3. On detail AIR SEPARATOR SCHEDULE, **ADD** “NOTE 1: PROVIDE EQUIPMENT PAD, PRE-ENGINEERED HDPE SECURED TO THE CONCRETE FLOOR. BASIS OF DESIGN DURAPLAS - POLAR PAD.
4. On AIR SEPARATOR SCHEDULE, **ADD** “1” in notes column for AS-1 and AS-2.
5. On detail HEAT EXCHANGER SCHEDULE, **ADD** “NOTE 2: PROVIDE MANUFACTURER’S RECOMMENDED FRAME STAND AND MOUNT TO PRE-ENGINEERED HDPE EQUIPMENT PAD SECURED TO THE CONCRETE FLOOR, BASIS OF DESIGN DURAPLAS - POLAR PAD.
6. On HEAT EXCHANGER SCHEDULE, **ADD** “2” in notes column for HX-1.
7. On detail WATER-TO-WATER HEAT PUMP SCHEDULE, **ADD** “NOTE 6: PROVIDE EQUIPMENT PAD, PRE-ENGINEERED HDPE SECURED TO THE CONCRETE FLOOR. BASIS OF DESIGN DURAPLAS - POLAR PAD.
8. On WATER-TO-WATER HEAT PUMP SCHEDULE, **ADD** “6” in notes column for HP-1.
9. On AIR HANDLING UNIT SCHEDULE, **CHANGE** note 5 that reads “AHU-E1 TO REMAIN UNDER BASE BID” to note “6”.
10. On the MECHANICAL SYMBOLS LEGEND, **ADD** F/T symbol and label as “FLOAT AND THERMOSTATIC TRAP.”

DRAWING MP101

1. On detail 1/MP101 **ADD** keynote 1 pointing to 3” CWS UP AND DN and 3” CWR UP AND DN located in room 215 HPLC/TRACE CHEM.

DRAWING M-501

2. On detail 5/M-501 **ADD** keynote 1 pointing to HX-1, EXT-1 and GF equipment pad.
3. On Detail 9/M-501 **ADD** keynote 1 pointing to the pump equipment pad.
4. **ADD** the following keynote to the drawing. “KEYNOTE 1 EQUIPMENT PADS ARE TO BE PRE-ENGINEERED HDPE PADS SECURED TO THE CONCRETE FLOOR. BASIS OF DESIGN DURAPLAS - POLAR PAD.

DRAWING M-701

1. On POINTS LIST FOR AHU SYSTEM, **REMOVE** references to notes 8 and 9.
2. On POINTS LIST FOR AHU SYSTEM, **ADD** note 5 to SMOKE DETECTOR notes column.
3. On POINTS LIST FOR AHU SYSTEM, **ADD** note 4 TO SUPPLY DUCT STATIC PRESSURE SENSOR notes column.
4. On detail 1, **REMOVE** the callout for LOW TEMPERATURE THERMOSTAT to the right of AHU-2 tag and left of the AHU-1 AIRFLOW MEASURING STATION.
5. On AHI-1 AND AHU-2 SEQUENCE OF OPERATIONS, **CHANGE** the first two paragraphs to read:
“UNDER BASE BID, PROVIDE AHU-2 CONTROL POINTS DESCRIBED IN THIS CONTROLS DIAGRAM. AHU-E1 CONTROL POINTS ARE EXISTING. ADJUST AHU-E1 STARTUP SEQUENCE AS DESCRIBED BELOW AND IT SHALL OPERATE WITH ITS EXISTING CONTROL SEQUENCE.
UNDER BID ALTERNATE 2, REMOVE AHU-E1 CONTROLS AND PROVIDE AHU-1 CONTROL POINTS AS DESCRIBED IN THIS CONTROLS DIAGRAM”

Contractor Questions:

Question 1:

Are you able to confirm the project location as the specs outline the following options:

- Boothbay Harbor, ME – top of cover page / header on table of contents & technical spec sections
- West Boothbay, ME – bottom of cover page / site visit details in the notice to contractors
- West Boothbay Harbor, ME – page titled: SECTION 011000 – SUMMARY

Response to Question 1:

The address is:

Maine Department of Marine Resources Laboratory
194 McKown Point Road
West Boothbay, Maine 04575

Question 2:

Detail 3 on AE503 indicates “mineral wool loose fill insulation”. Our insulation vendor is of the opinion that MW loose fill is not available in the USA, only in Canada. Would MW batt insulation be acceptable here? Or fiber glass loose fill?

Response to Question 2:

Yes batt MW insulation is acceptable

Question 3:

There are no prequalified GCs for this project should the Direct Digital Controls be bid directly to <mailto:BGS.Architect@Maine.gov> by September 3, 2024? Or should we find the Mechanical contractors bidding the project and reach out with our controls number?

Response to Question 3:

There are no filed sub-bids allowed on the project. Subcontractors should reach out to mechanical and general contractors who are bidding.

Question 4:

Request for info: Spec section 232113 Hydronic Piping, Part 2-Products sub par. 2.1 A- Working pressures and temperatures indicate for each system. Under Sub par. 3.1 Piping Applications -A it indicates schedule 40 steel and schedule 40 PVC pipe types. Will schedule 40 PVC be acceptable on these systems? We believe schedule 40 PVC has a temperature rating of up to 140 deg F only. If you could please indicate what pipe type is being required for each system? If schedule 40 steel is required would a Victaulic system be acceptable?

Response to Question 4:

Specification section 3.1 is correct, PVC piping is allowed for the seawater piping, condensate drains, and condenser water piping. Where steel piping is used, Victaulic is acceptable.

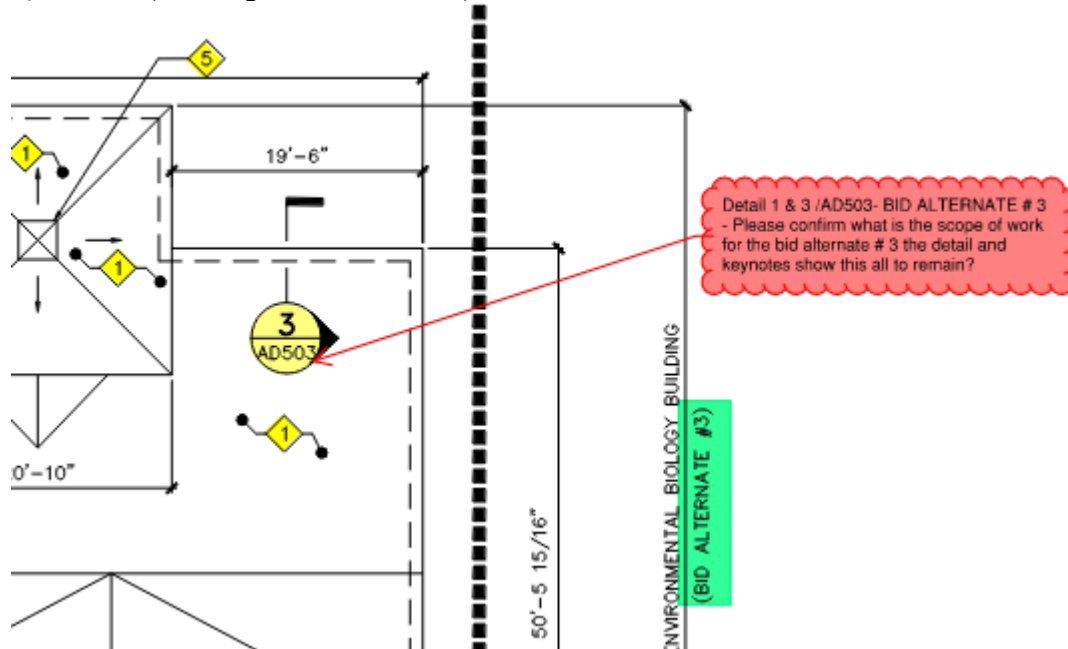
Question 5:

Is this project subject to Buy America, Build America (BABA)?

Response to Question 5:

This project is not subject to Buy America, Building America (BABA)

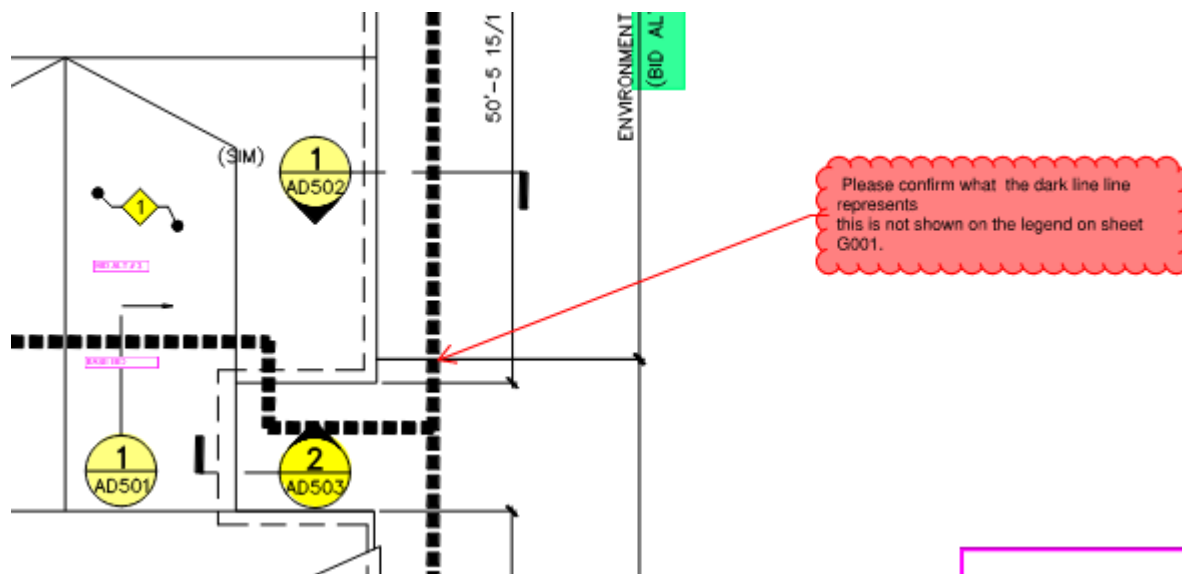
Question 6 (Drawing AD-120 Detail 1):



Response to Question 6:

Scope of work for Bid Alternate 3 is removals as shown and noted on detail 3/AD503. Detail 1/AD503 is provided to show existing conditions.

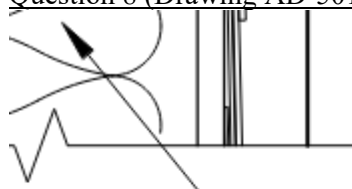
Question 7 (Drawing AD-120 Detail 1):



Response to Question 7:

These lines are tagged on the drawing as "LIMIT OF WORK" AND represent the boundary between bid options.

Question 8 (Drawing AD-501 Detail 2):



LIGHT GAUGE STEEL FRAMING W/
6" BATT INSULATION

AIL

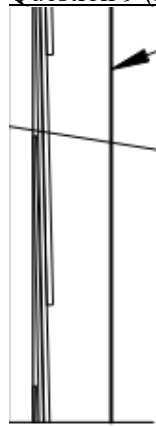
ANGLES OVER ASPHALT
D SHEATHING

Detail # 2/AD501- please confirm if the note for the light gauge steel framing with 6" batt insulation is new or existing to remain.

Response to Question 8:

At this location, light gauge steel framing w/ 6" batt insulation is existing.

Question 9 (Drawing AD-501 Detail 3):



EXISTING SUSPENDED GYPSUM BOARD
CEILING

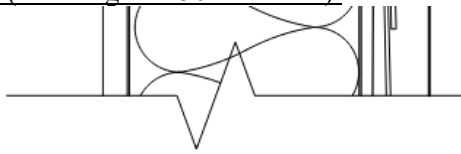
LIGHT GAUGE STEEL FRAMING W/
6" BATT INSULATION

3/AD501- Please confirm the existing suspended gypsum ceiling it to remain. Please confirm the scope of work for this detail for removal

Response to Question 9:

At this location, the existing suspended gypsum board ceiling is to remain. The intent of Detail 3/AD501 is to show existing conditions where there are no removals.

Question 10 (Drawing AD-502 Detail 1):



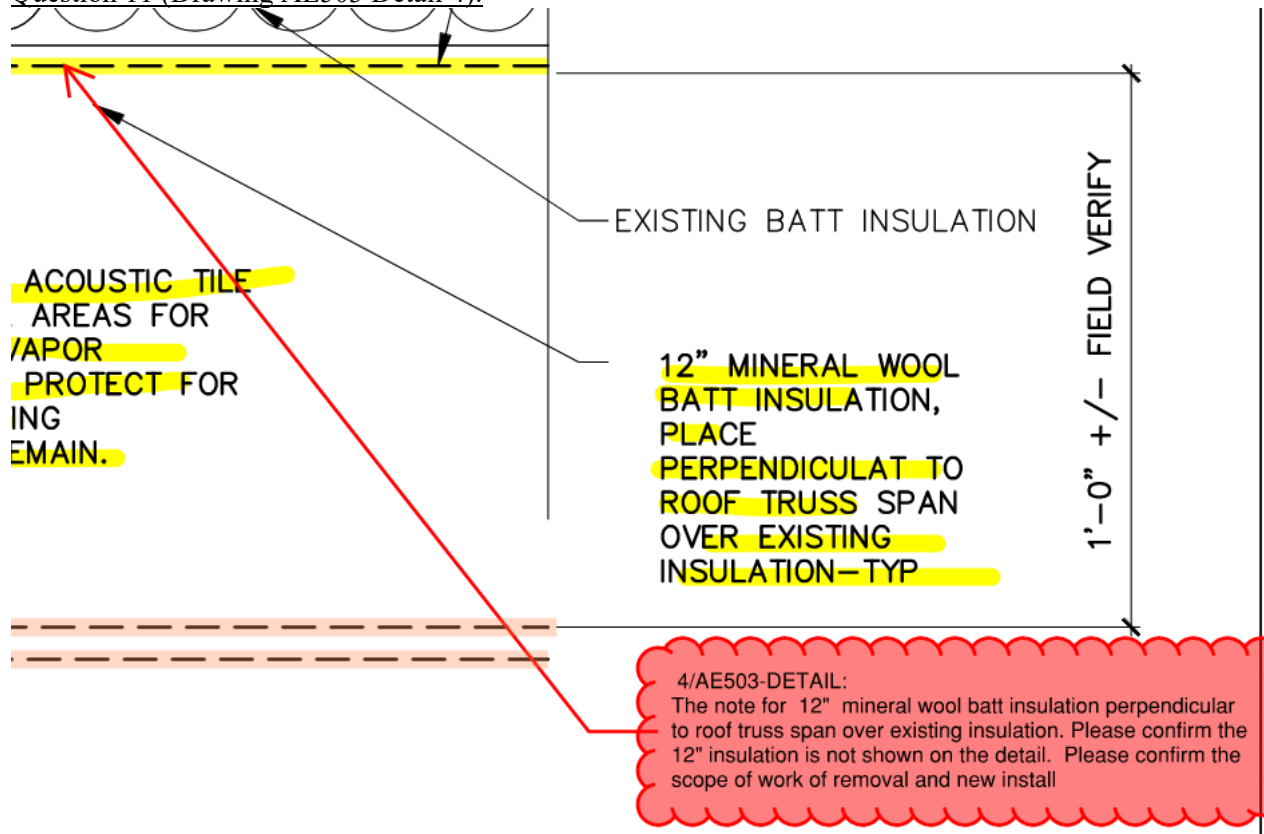
1 REMOVALS ROOF DETAIL @ GABLE WALL
AD120/AD502 SCALE: 3"=1'-0"

Detail # 1/AD502- that is tagged on sheet AD120 for Add Alt # 3 area , please confirm this detail is part of the Add alt # 3

Response to Question 10:

This detail is for work under the Base Bid and Bid Alternate 3. On AD120, the locations indicate the work to be completed in this detail for Base Bid vs Bid Alternate 3.

Question 11 (Drawing AE503 Detail 4):



Response to Question 11:

Delete the note that points to empty space below the vapor barrier that states "12" MINERAL WOOL BATT INSULATION, PLACE PERPENDICULAR TO ROOF TRUSS SPAN OVER EXISTING INSULATION-TYP." The installation of the insulation is noted on the detail above.

Question 12 (Drawing M-001 EXPANSION TANK SCHEDULE):

Expansion Tank Schedule: Please confirm the expansion tanks require a support from above or are on a concrete housekeeping pads

EXPANSION T			
UNIT NO	LOCATION	SERVES	ACCE VOI
EXT-1	129 FREEZER	CONDENSER WATER	10
EXT-2	104 MECHANICAL	CHILLED/HOT WATER	7
NOTES: 1.			

NOTES	
-	

Response to Question 12:

Equipment pads for expansion tanks are to be pre-engineered HDPE pads secured to the concrete floor. Basis of design DuraPlas - Polar Pad.

Question 13 (Drawing M-001 AIR HANDLING UNIT SCHEDULE):

NOTES		Air handling Unit Schedule : Please confirm the note for each AHU unit. AHU-E1 note # 5 in Bid Alternate # 2 AHU - 1 Note # 6 - There is not a note # 6 Please confirm this note
D23	5	
	6	
	1,2,3	

Response to Question 13:

There are two note 5's on the schedule note section. The second note 5 will be updated to note 6. Base Bid: AHU-E2 and its controls components will be replaced by AHU-2. AHU-E1 and its associated controls components and programming are to remain. Bid Alternate 2: AHU-E1 and its controls components will be replaced by AHU-1 with new controls components.

Question 14 (Drawing M-001 AIR HANDLING UNIT SCHEDULE):

Detail : 2 & 3 /M-401 : Mechanical Room # 101
 AHU-1 : Has key note # 2 for AHU- E1 to be under Bid Alternate # 2
 M-401 Key note # 2 for AHU-1 is tagged for bid Alternate # 2
 The Schedule on sheet M-001- Has both AHU-1 -E2 and AHU-1 please confirm what unit and the correct note on the schedules with key note for the scope of work

UNIT NO	SERVES	SA FAN		
		ESP IN	MAX CFM	
AHU-E1	MAIN LAB BUILDING	1.5	11000	1
AHU-1	MAIN LAB BUILDING	1.5	11000	1
AHU-2	MAIN LAB BUILDING	2.0	7000	

Response to Question 14:

Base Bid: AHU-E2 and its controls components will be replaced by AHU-2. AHU-E1 and it's associated controls components and programing are to remain.

Bid Alternate 2: AHU-E1 and its controls components will be replaced by AHU-1 with new controls components.

Question 15 (Drawing M-001 HEAT EXCHANGER SCHEDULE):

UNIT NO	SALT WATER SIDE					HEATING	
	GPM	HEATING		COOLING		GPM	INLET
		INLET	OUTLET	INLET	OUTLET		
HX-1	70	45	37	65	75	70	35
NOTES: 1. HEAT EXCHANGER TO BE SIZED FOR 70 GPM, AT 140 GPM.							

Heat Exchange Schedule: HX-1 (Freezer 129) please confirm if this requires a concrete housekeeping pad or is this on a support rack , please confirm who furnish and installs . See Detail 5/M501 and sheet M-401

Response to Question 15:

HX-1 shall be installed on a support rack mounted onto an equipment pad. Equipment pads are to be pre-engineered HDPE pads secured to the concrete floor. Basis of design DuraPlas - Polar Pad.

Question 16 (Drawing MD401 KEYNOTE 5):

2. UNDER BASE BID, REMOVE STEAM PIPING SERV HUMIDIFIER AND CAP AS SHOWN.

Key notes: Please confirm where key note # 5 is located on this sheet



REMOVE STEAM PIPING, TEMPORARILY CAP FOR FUTURE CONNECTION.

Response to Question 16:

Keynote 5 is located on detail 3/MD401 pointing to the steam piping between the AHU's.

Question 17 (Drawing MD401):

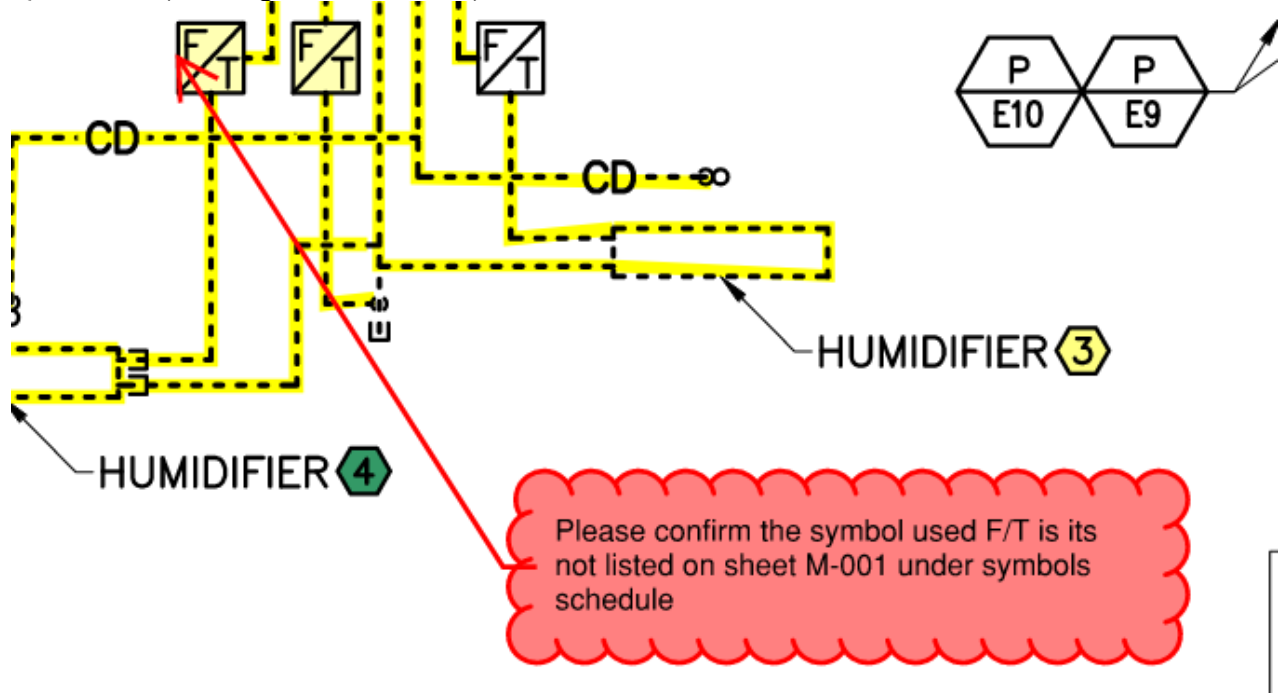
MECHANICAL LINE TYPE LEGEND	
-----	REMOVE ITEMS
_____	EXIST ITEMS TO REMAIN
_____	PROVIDE ITEMS
- . - . - . - . -	CONTROL WIRING
_____ CWS	CONDENSER WATER SUPPLY
_____ CWR	CONDENSER WATER RETURN
_____ HPWS	HEAT PUMP WATER SUPPLY
_____ HPWR	HEAT PUMP WATER RETURN
_____ HCS	HOT/CHILLED WATER SUPPLY
_____ HCR	HOT/CHILLED WATER RETURN

Please confirm the line types for scope for removal items shown on this sheet and all mechanical demolition sheets. Mechanical Line Type Legend: on sheet M-001 Please confirm the lines for Demolition scope of work are Bold Dashed / The legend has dashed only. On sheet M-001

Response to Question 17:

The bold dashed lines are removals as indicated on drawings. The light dashed lines represent ductwork that is behind other ductwork because it is a 3-dimensional model.

Question 18 (Drawing MD401 Detail 3):



Response to Question 18:

F/T indicates a float and thermostatic steam trap, this symbol will be added to the MECAHNICAL SYMBOLS LEGEND.

Question 19 (Drawing MP101 Keynote 1):

Keynotes: Please confirm where key note # 1 is located on this sheet

1

KEYNOTES (THIS SHEET ONLY)

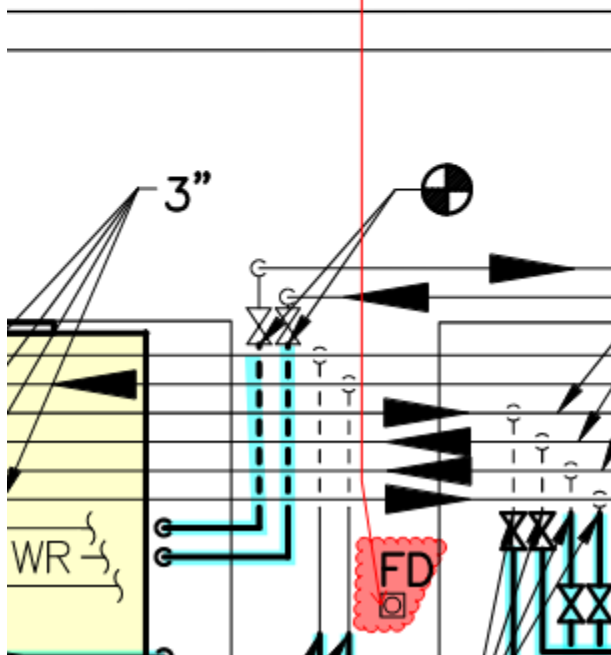
PROVIDE WHITE PVC JACKET ON PIPE INSULATION WHERE EXPOSED IN SPACE.

Response to Question 19:

This keynote is intended to point to the 3" CWS UP AND DN and 3" CWR UP AND DN located in room 215 HPLC/TRACE CHEM.

Question 20 (Drawing M-401 Detail 3):

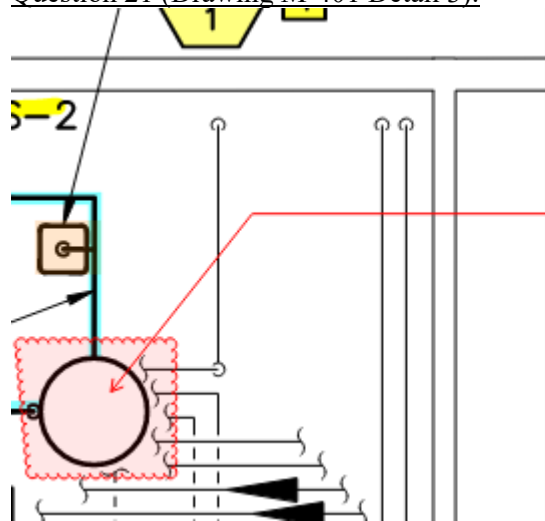
3/ M-401 : Mechanical
roof # 104 piping plan:
there is a floor drain
shown that does not
connect. Please confirm
the connections is this an
existing floor drain to
remain? The text is in
bold, does this indicate
new ?



Response to Question 20:

FD is an existing floor drain to remain; no work involved at this location.

Question 21 (Drawing M-401 Detail 3):

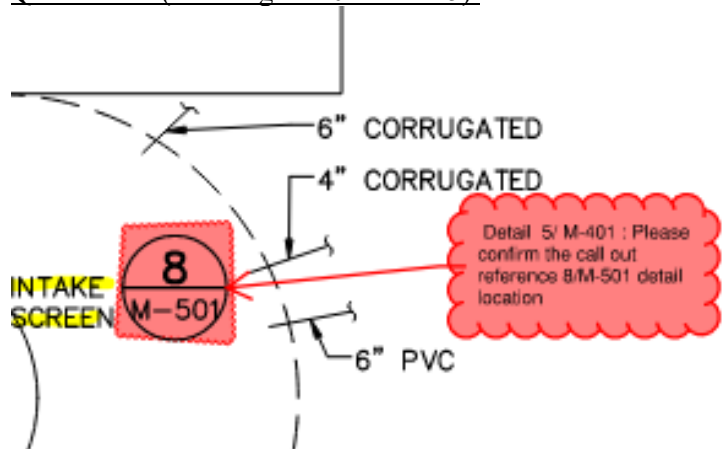


3/M-401: Please confirm what the circle below the GF/1 represents. It has HCS connection Is this new equipment to be furnished and installed?

Response to Question 21:

This is the buffer tank serving HP-1 as described as note 5 on the WATER-TO-WATER HEAT PUMP SCHEDULE.

Question 22 (Drawing M-401 Detail 5):

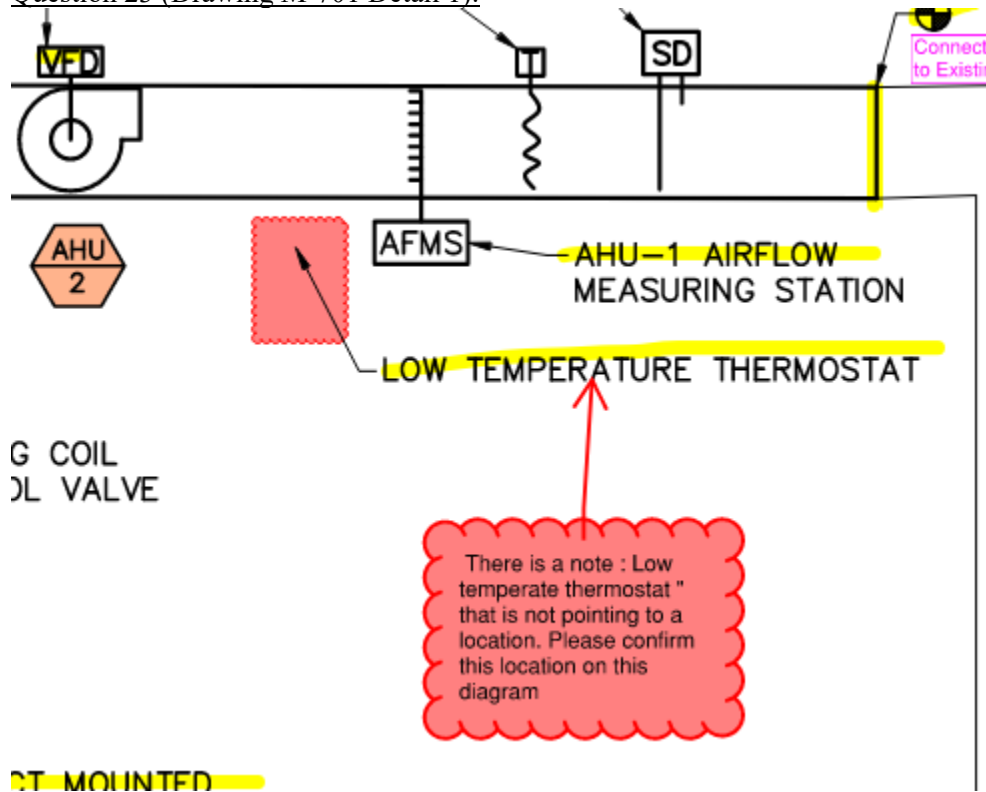


Detail 5/ M-401 : Please confirm the call out reference 8/M-501 detail location

Response to Question 22:

The detail callout on the drawing is correct and references the seawater intake screen.

Question 23 (Drawing M-701 Detail 1):



Response to Question 23:

The note "LOW TEMPERATURE THERMOSTAT" will be removed from the drawing.

Question 24 (Drawing M-701 Detail 1):

Seawater Heat Pump system Points List:
Please confirm the notes shown below the schedule 3 & 4 are not used or if they are what sections on this schedule they apply

1. GENERATE AN ALARM ON THE GUI IF THE VFD INDICATES AN ALARM CONDITION
2. GENERATE AN ALARM ON THE GUI IF THE TEMPERATURE FALLS BELOW 32°F (ADJUSTABLE).
3. GENERATE AN ALARM ON THE GUI IF THE PUMP FAILS TO SHOW PROOF OF FLOW.
4. GENERATE AN ALARM ON THE GUI IF THE STS DROPS BELOW 2 PSI (ADJUSTABLE) OR RISES ABOVE 30 PSI (ADJUSTABLE) WHILE P-10 IS RUNNING
5. THE VFD SHALL BE PROGRAMMED TO ISSUE AN ALARM WHEN THE PUMP CURRENT INDICATES A "NO FLOW" ALARM WHICH COULD RESULT FROM NO WATER IN THE MANHOLE OR A PUMP "DEAD HEAD" CONDITION.

Response to Question 24:

Notes 3 and 4 are not used and will be omitted from the drawing.

Question 25 (Drawing M-701 Detail 1):

Points List for AHU System: Please confirm note # 8 & 9 . They are listed in the schedule and note listed below the note schedule: (Refer to Smoke Detector: Supply Duct Static Pressure Sensor)

HUMIDIFIER STEAM CONTROL VALVE	x	x							x	
LOW TEMPERATURE THERMOSTAT (FREEZESTAT)	x		x	x				x		2
AHU FILTER SWITCH				x						4
SMOKE DETECTOR	x		x	x				x		8,9
SUPPLY DUCT STATIC PRESSURE SENSOR	x	x			x	x		x		9

Response to Question 25:

The SMOKE DETECTOR will be updated contain note 5. References to note 8 and 9 will be omitted from the drawing.

The SUPPLY DUCT STATIC PRESSURE SENSOR should contain note 4.

Question 26 (Drawing M-701 Detail 1):

Points List for AHU System: Please confirm note # 5 is listed and not tagged in the schedule.

2. GENERATE ALARM IF FREEZESTAT INDICATES A LOW TEMPERATURE CONDITION. (TYPICAL FOR 3 COILS ON EACH AHU)
3. GENERATE ALARM IF VFD INDICATES AN ALARM CONDITION.
4. GENERATE MAINTENANCE ALARM WHEN PRESSURE DROP EXCEEDS 0.70 IN H2O.
5. GENERATE ALARM IF SMOKE DETECTOR INDICATES AN ALARM CONDITION.
6. GENERATE ALARM IF HUMIDIFIER CONTROLLER GENERATES AN ALARM CONDITION.
7. AHU-1 GLYCOL COIL CONTROL VALVE TO BE REPLACED UNDER BID ALTERNATE 2.

Response to Question 26:

The SMOKE DETECTOR will be updated to contain note 5.

Question 27 (Drawing E-001 Keynote 5):

5 BID ALTERNATE 2.

Key note # 4 & 5 are both tagged on AHU -E1 please confirm the scope for Bid Alternate # 2 key note # 5 and base bid # 4.0
Is key note # 3 part of scope for base bid or bid Alternate # 2

Response to Question 27:

Under base bid, AHU-E1 and associated electrical components are to remain. Under bid alternate 2, AHU-E1 and associated electrical components are to be removed as indicated on drawings. See updated keynotes as described in this addendum.

Question 28 (Drawing E-101 Keynotes):

Please confirm the Drawing Key notes are for this sheet shown only

DRAWING KEYNOTES

- 1 PROVIDE CONDUCTORS, CONDUIT, AND TRANSFER SWITCH FOR AHU-2 UNIT. PROVIDE CONDUIT AND CONDUCTORS TO AHU-1 TRANSFER SWITCH FROM AHU-2 TRANSFER SWITCH. REFER TO DETAIL 2 ON SHEET E-601 FOR TRANSFER SWITCH WIRING DIAGRAM.

Response to Question 28:

Drawing keynotes are for this sheet only

Question 29:

Equipment schedule (M001) states that the AHU-1 to be included under bid alternate 2, where as in controls diagram (M701) it states the AHU-1 to be included under base bid.

Question 29 Contractor's Estimation Team Assumption:

Honeywell assumes to go with a base bid and an alternate bid.

Base bid - Includes all the control scope including replacing of field devices for AHU - 1, AHU-E1, Sea water Heat pump system and only Sequence update on AHU-2.

Alternate Bid - Includes all the control scope for 3 AHU's and Sea water Heat pump system including replacing of field devices.

Question 29 Response:

Contractor's Estimation Team Assumption is not correct. As described in this addendum above, replace first 2 paragraphs of AHU-1 AND AHU-2 SEQUENCE OF OPERATION.

Base Bid: AHU-E2 and its controls components will be replaced by AHU-2. AHU-E1 and its associated controls components to remain with updates to startup as described in AHU-1 AND AHU-2 SEQUENCE OF OPERATION.

Bid Alternate 2: AHU-E1 and its controls components will be replaced by AHU-1 with new controls components.

Question 30:

AHU- E1 has been found in mechanical schedule where as it has not mentioned in the controls drawing.

Question 30 Contractor's Estimation Team Assumption:

Honeywell consideres AHU-E1 under base bid and follow the same schematic and point list mentioned for AHU-1.

Question 30 Response:

Contractor's Estimation Team Assumption is not correct. As described in this addendum above, replace first 2 paragraphs of AHU-1 AND AHU-2 SEQUENCE OF OPERATION.

Base Bid: AHU-E2 and its controls components will be replaced by AHU-2. AHU-E1 and its associated controls components to remain with updates to startup as described in AHU-1 AND AHU-2 SEQUENCE OF OPERATION.

Bid Alternate 2: AHU-E1 and its controls components will be replaced by AHU-1 with new controls components.

Question 31:

VAV boxes has been found in Floor plans but not mentioned in Equipment schedule or schematic.

A note has been mentioned to program, test and Balance VAV boxes. Please clarify the Honeywell scope for this.

Question 31 Contractor's Estimation Team Assumption:

Honeywell assumes to replace and program the VAV controllers including all the field devices as per standard honeywell point list.

Question 31 Response:

Contractor's Estimation Team Assumption is not correct.

The VAV controllers will remain and operate under their existing controls programming. Some of the VAV boxes airflow setpoints will be changed as described on the mechanical ductwork sheets.

END OF ADDENDUM NO. 1