Addendum #: 2

KBSO Project #: 24023
Project Name: Noblesville HS AHU Replacements – Bid Pack 4
Issue Date: 7/17/2025

This Addendum number 2 to the drawings and specifications shall supplement, amend, and become a part of the bidding documents, plans, and specifications. All bids and construction contracts shall be based on these modifications to the original contract documents.

Part 1. BIDDING AND CONTRACT DOCUMENTS

1.01 Question and answer:

- **a. Question:**
  - i. Are there any alternates in this project?
- **b. Answer:**
  - i. No, there are no alternates. Listed below are the specification adjustments required to remove references to alternates. The intent is as follows:
    1. Base bid shall include face and bypass preheat coils for the air handlers, consistent with the AHU schedules and notes.
    2. Base bid shall include duct sealing for newly added ductwork, but not the “Aeroseal duct sealing” paragraph. Aeroseal is not required.

Part 2. SPECIFICATIONS

2.01 01 23 00 Alternates – remove entire section without replacement.
2.02 23 31 13 2.5.G Aeroseal Duct Sealant (ALTERNATE BID ONLY):
a. Remove paragraph in its entirety without replacement.
2.03 23 31 13 3.3.C.1 revise to read:
a. All newly installed ducts shall be sealed as listed.
2.04 23 31 13 3.3.C.3 remove in its entirety without replacement.
2.05 23 73 13 2.4.C. Revise paragraph heading to remove “(ALTERNATE BID ONLY)”.

Part 3. DRAWINGS

3.01 M641 - MECHANICAL SCHEDULES
a. Revised the values in the “ESP” column of the AHU schedule.

ATTACHMENTS:

M641 - MECHANICAL SCHEDULES

END OF ADDENDUM

AIR HANDLING UNIT SCHEDULE

UNIT ID	AIR CAPACITY		SUPPLY FAN DATA				DIMENSIONAL DATA (SEE NOTES)			FILTER DATA				HYDRONIC COOLING COIL DATA									HYDRONIC INTEGRAL FACE AND BYPASS HEATING COIL DATA								ELECTRICAL DATA				MANUFACTURER WITH MODEL NUMBER	NOTES
										PRE-FILTER		FINAL FILTER			EAT		LAT																				
	CFM	MIN OA CFM	TYPE	ESP	BHP (TOTAL)	HP (Ea.)	MAX LENGTH	MAX HEIGHT (SEE NOTES)	MAX WIDTH	TYPE	MERV	TYPE	MERV	TOTAL MBH	SENS MBH	DB	WB	DB	MAX APD (NOTE 1)	MAX VEL	EWT	GPM	MAX WPD	RATED AIRFLOW (CFM)	HEATING MBH	EAT	LAT	MAX APD (NOTE 14)	MAX VEL	EWT	GPM	MAX WPD	AMPS EACH MOTOR (FLA)	VOLTAGE	PHASE	MAX WEIGHT (LBS / SF FOOTPRINT)		
AHU-6	14,400		2X DD PLENUM	2.54 in-wg	17.74	10	15' - 5 1/2"	6' - 0 3/4"	8' - 4"	2" PLEATED	13			716.03	458.02	83.77 °F	70.30 °F	55.00 °F	0.65 in-wg	412 FPM	44.3 °F	79.3	10.7 Feet	7200	430.57	-0.6 °F	55.1 °F	0.24 in-wg	350 FPM	130 °F	43.0	4.6 Feet	12.5	460	3	70	TRANE CSAA SIZE 35	1,2,3,4,5,6,7,8,9,10,14
AHU-7	15,500		2X DD PLENUM	4.77 in-wg	25.02	15	15' - 9 1/16"	6' - 0 3/4"	8' - 4"	2" PLEATED	13			658.71	432.16	80.25 °F	68.36 °F	55.00 °F	0.62 in-wg	444 FPM	44.3 °F	73.0	17.9 Feet	7750	252.32	25.0 °F	55.0 °F	0.11 in-wg	370 FPM	130 °F	44.0	1.3 Feet	18.1	460	3	70	TRANE CSAA SIZE 35	1,2,3,4,5,6,7,8,9,10,14
AHU-9	24,430		2X DD PLENUM	4.75 in-wg	42.52	25	16' - 1 1/8"	7' - 7"	10' - 5 1/2"	2" PLEATED	13			1210.13	774.32	83.67 °F	70.25 °F	55.00 °F	0.74 in-wg	429 FPM	44.3 °F	134.1	4.2 Feet	12215	729.39	0.0 °F	55.0 °F	0.11 in-wg	340 FPM	130 °F	106.0	3.7 Feet	30.0	460	3	70	TRANE CSAA SIZE 57	1,2,3,4,5,6,7,8,9,10,14
AHU-10	35,000		4X DD PLENUM	2.50 in-wg	38.93	10	16' - 5 1/2"	9' - 1 1/2"	11' - 8 1/2"	2" PLEATED	13			1362.97	935.61	79.23 °F	67.39 °F	55.00 °F	0.58 in-wg	444 FPM	44.3 °F	172.5	7.2 Feet	17500	835.09	19.6 °F	63.0 °F	0.22 in-wg	360 FPM	130 °F	84.0	0.3 Feet	12.5	460	3	70	TRANE CSAA SIZE 80	1,2,3,4,5,6,7,8,9,10,14

NOTES:
1. MAX AIR PRESSURE DROP SHALL BE AT COIL RATED FLOW. TOTAL ROWS ARE TO BE SELECTED BY MFGR; PROVIDED THAT THE FOLLOWING CONDITIONS ARE MET:
   A). THE DRY COIL PRESSURE DROP, WHEN EVALUATED AT 500 FPM FACE VELOCITY, DOES NOT EXCEED 0.72" WC
   B). THE TOTAL FAN BRAKE HORSEPOWER LIMIT IS NOT EXCEEDED
2. PROVIDE VFD READY MOTORS. SECTION 23 TO COORDINATE WITH OTHER TRADES AS APPROPRIATE TO ENSURE VFD IS PROVIDED. VFDS SHALL INCLUDE INTEGRAL DISCONNECT.
3. PROVIDE UNITS WITH ECONOMIZER CAPABILITY
4. FILTER PRESSURE DROP SHALL BE EVALUATED AT TWO TIMES INITIAL SP DROP.
5. PROVIDE ELECTRICAL CIRCUIT (ONE FOR EACH FAN). COORDINATE LOCATION TO AVOID DOOR SWINGS. PROVIDE SEPARATE CIRCUIT FOR LIGHTS AND RECEPTACLES.
6. ALL AHU SHIPPING SPLITS INCLUDING RIGGING MUST BE CAPABLE OF FITTING THROUGH THE HORIZONTAL OPENINGS IN THE MECHANICAL ROOM. MANUFACTURER MUST SECURE UNIT COMPONENTS SUCH THAT THE SHIPPING SPLIT CAN BE THROUGH THE LOUVER OPENINGS.
7. THE DIMENSIONS, COIL PULL CLEARANCE, AND CONNECTION LOCATIONS ARE SPECIFIC DUE TO SPACE CONSTRAINTS. REFER TO SECTIONS, 3D VIEWS, AND DETAILS TO ENSURE THAT THE SUBMITTED UNIT CAN MEET ALL REQUIREMENTS.
8. SEE PLAN VIEWS & ASSOCIATED 3D VIEWS FOR SUPPLY AIR OPENING SIZES AND LOCATIONS.
9. FOR MULTIPLE SUPPLY FAN ARRANGEMENTS: PROVIDE MANUAL BLANK OFF PLATES TO BE INSTALLED IN FRONT OF FANS TO BE INSTALLED UPON FAN FAILURE.
10. MAX HEIGHT INCLUDES INTEGRAL 8" BASE RAIL. BASE RAIL MAY BE EITHER FACTORY INSTALLED OR SHIPPED LOOSE FOR INSTALL BY M.C. IN FIELD.
11. PROVIDE UNIT WITH REHEAT COIL - SEE REHEAT COIL SCHEDULE
12. MAX HEIGHT INCLUDES INTEGRAL 10" BASE RAIL. BASE RAIL MAY BE EITHER FACTORY INSTALLED OR SHIPPED LOOSE FOR INSTALL BY M.C. IN FIELD.
13. PROVIDE IN-SITU LEAKAGE TESTING PER SPEC.
14. PRESSURE DROP LISTED IS AT THE RATED FLOW DURING HEATING MODE. THE PRESSURE DROP OF THE DEVICE MAY BE HIGHER DURING FULL FLOW COOLING MODE. AHU MFGR SHALL ENSURE THAT THE FULL PRESSURE DROP THROUGH F&BP DEVICE IS ACCOUNTED FOR IN THE FAN STATIC PRESSURE / POWER CALCULATIONS

RETURN AIR FAN SCHEDULE BP4

UNIT ID	FAN DATA							MOTOR DATA			ACCESSORIES					UNIT WEIGHT (LBS)	MANUFACTURER WITH MODEL NUMBER	NOTES
	DESCRIPTION	DRIVE TYPE	CFM	TSP	BHP	RPM	SONES (INLET)	HP	VOLTS	PH	ROOF CURB	DISCONNECT SWITCH	GRAVITY BACKDRAFT DAMPER	VIBRATION ISOLATORS	BIRD SCREEN			
RAF-6	TUBULAR MIXED FLOW WHEEL DIRECT DRIVE INLINE FAN	DIRECT	12500	2.5	8	1500	28	15	460	3	NO	YES	NO	YES	NO	750.00	COOK QMX	1,2
RAF-7	TUBULAR MIXED FLOW WHEEL DIRECT DRIVE INLINE FAN	DIRECT	13500	2.5	9.1	1577	36	15	460	3	NO	YES	NO	YES	NO	750.00	COOK QMX	1,2
RAF-9	TUBULAR MIXED FLOW WHEEL DIRECT DRIVE INLINE FAN	DIRECT	21300	2.5	13.9	1276	32	15	460	3	NO	YES	NO	YES	NO	1250.00	COOK QMX	1,2
RAF-10	TUBULAR MIXED FLOW WHEEL DIRECT DRIVE INLINE FAN	DIRECT	25000	3	20.2	1458	40	30	460	3	NO	YES	NO	YES	NO	1450.00	COOK QMX	1,2

NOTES:
1. PROVIDE WITH VFD READY MOTOR.
2. PROVIDE WITH SIDE MOUNTED ACCESS DOOR TO REMOVE MOTOR WITHOUT REMOVING FAN HOUSING.

MECHANICAL SCHEDULE

Service:	Material	Insulation	Joining Method	Vapor Barrier?	Jacket
Supply air duct from AHU	Galvanized Sheet Metal	1" MF BLK (NOTE 2)	-	Yes	FSK
Return air duct up to Outdoor Air (OA) mixing point	Galvanized Sheet Metal	-	-	No	-
Relief air duct	Galvanized Sheet Metal	-	-	No	-
Outdoor air duct upstream of mixing point	Galvanized Sheet Metal	2" MF BRD	-	Yes	FSK
HHW S&R piping (2" and up, NOTE 5)	ASTM A-53 Steel Pipe	1" MFPPI	Welded or grooved	No	ASJ (NOTE 1)
HHW S&R piping (2" and down, NOTE 5)	ASTM B-88 Type L Copper Tube	1" MFPPI	Soldered	No	ASJ (NOTE 1)
CHW S&R piping (2" and up, NOTE 5)	ASTM A-53 Steel Pipe	1" MFPPI	Welded or grooved	Yes	ASJ (NOTE 1)
CHW S&R piping (2" and down, NOTE 5)	ASTM B-88 Type L Copper Tube	1" MFPPI	Soldered	Yes	ASJ (NOTE 1)
Condensate drain piping	PVC Pipe	-	PVC Glue	-	-

MF BLK = Mineral Fiber blanket for ductwork
MF BRD = Mineral Fiber board for ductwork
MF TNK = Mineral Fiber for tanks
MFPPI = Mineral Fiber preformed pipe insulation
FE = Flexible Elastomeric pipe insulation
FSK = Foil Scrim with Kraft Paper
ASJ = All Service Jacket
AL = Aluminum Jacket for outdoor service
IL MF = Internally lined mineral fiber – see duct specification
IL FE = Internally lined flexible elastomeric – see duct specification
Note 1: All exposed piping shall closer than 72" from the ground shall receive a field applied PVC jacket.
Note 2: Thickness is uncompressed thickness – where applicable for MF BLK.
Note 3: Provide jacket only for the exterior portion of insulation.
Note 4: Deleted
Note 5: Either option is acceptable for 2" pipe.

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NOBLESVILLE HS AHU REPLACEMENTS - BID PACK 4
NOBLESVILLE SCHOOLS
18111 CUMBERLAND RD, NOBLESVILLE, IN 46060

ANDREW P. STEINER REGISTERED PE11400737 STATE OF INDIANA PROFESSIONAL ENGINEER
05-30-2025
Job# 24023

SCALE:	AS NOTED
DRAWN BY:	Author
DESIGNED BY:	Designer
CHECKED BY:	Checker
DATE:	09/27/2024
PROJECT #:	24023

REVISIONS:

#	DESCRIPTION	DATE
1	ADD #2 BP4	07.17.25

MECHANICAL SCHEDULES

M641