

ADDENDUM NO. 2
Ottawa County Jail
Roof/RTU Replacement
BKL, Inc. - Project #787
January 3, 2022

NOTICE TO BIDDERS

This Addendum is issued to all registered plan holders pursuant to the Instructions to Bidders and Conditions of the Contract. This Addendum serves to clarify, revise, and supersede information in the Project Manual, Drawings, and previously issued Addenda. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement. The date for receipt of bids is unchanged by this Addendum and is at same time and location. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.

CHANGES/CLARIFICATIONS TO DRAWINGS

1. Sheet A2-01 – Revised detail 4 to include new flashing detail at steel angles and screens installed by owner.
2. Sheets M0-01, M1-01, M5-01, MD-01 – Revised to include replacement of ductwork at RTU1 and RTU 2 and replacement of EF-10 that is no longer functioning.

APPROVALS:

1. Kingspan Light and Air Tufflite unit skylights are approved as a contractor options.

ATTACHMENTS

Substitution Request – Kingspan Unit Skylights
Pre-Bid Meeting Sign In Sheet
A2-01
MD-01
M0-01
M1-01
M5-01

END



SUBSTITUTION REQUEST

(During the Bidding/Negotiating Stage)

Project: Ottawa County Jail Substitution Request Number: _____
From: Ray Puckett – Sano & Associates
To: Jenni Hammock Date: 12/17/2021
Bkl Inc A/E Project Number: _____
Re: _____ Contract For: _____
Specification Title: Unit Skylights Description: Unit Skylights
Section: 086200 Page: 3 Article/Paragraph: 2, A

Proposed Substitution: Kingspan Light and Air Tufflite

Manufacturer: KLA Address: 28662 N Ballard Drive Phone: 800-759-6985
Trade Name: Lake Forest, IL 60045 Model No.: HWHS

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Raymond Puckett
Signed by: Raymond Puckett
Firm: Sano & Associates
Address: 1312 Boomer Trail.
Edmond, OK 73034
Telephone: 913-424-4475

A/E's REVIEW AND ACTION

- ☒ Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

Signed by: J.Hammock Date: 01/03/22

Supporting Data Attached: ☒ Drawings ☒ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

SIGN IN SHEET

DECEMBER 28, 2021 @ 1:30

PRE-BID MEETING

BID 2021-2022.19 OTTAWA COUNTY SHERIFF DEPT BUILDING ROOF

COMPANY NAME	PERSON ATTENDING
1. Tier 1 GC	nicci@tier1gc.com NICCI HARVEY
2. BKL	JENNI HAMMOCK
3. VO 4 Construction	Paal Burgard
4. OKLA. Roofing & Metal ^{Sheet}	CHARLES J. ANDERSON ^{BIDS @ OK Roofing - CORP}
5. BKL	XIN REEVE
6. Masar	Dylan Masar 918-230-5782
7.	
8.	
9.	
10.	

SIGN IN SHEET

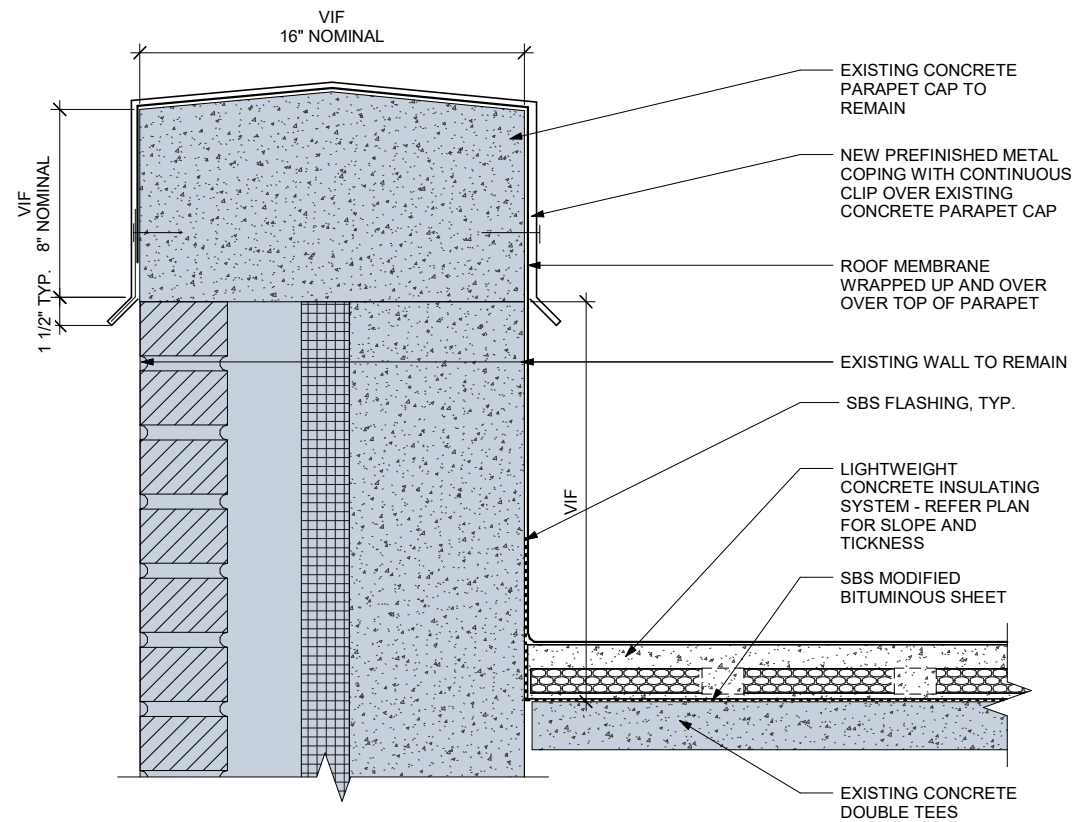
DECEMBER 28, 2021 @ 1:30

PRE-BID MEETING

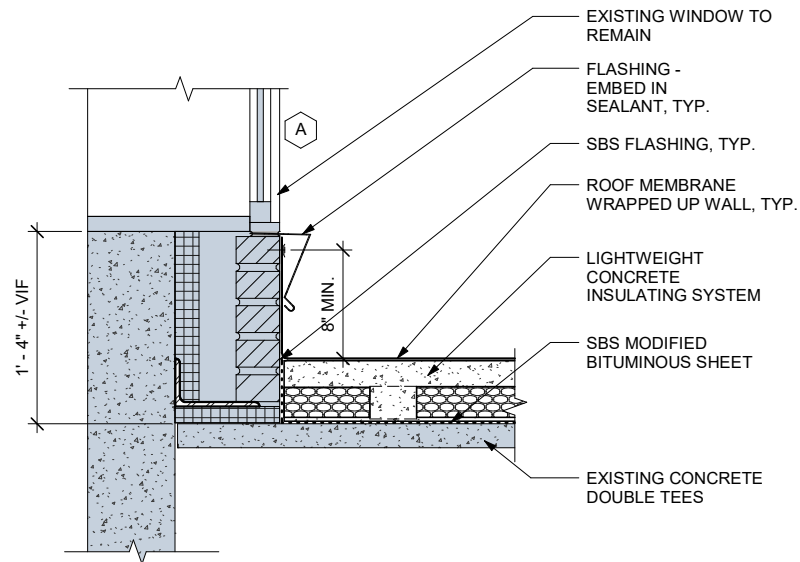
BID 2021-2022.19 OTTAWA COUNTY SHERIFF DEPT BUILDING ROOF

COMPANY NAME	PERSON ATTENDING
1. <u>Vision Air</u>	<u>Lawson Harless</u>
2. <u>Alva Roof</u> <u>Lewis Roofing</u>	<u>Kendall Richardson</u>
3. with from	<u>Mitch Crawford</u>
4. <u>SOONER RECON</u>	<u>DEVARD HANNA</u> <small>ESTIMATING @ soonerrecon.com</small>
5. <u>L. Wallace Construction</u>	<u>John Riggs</u>
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____

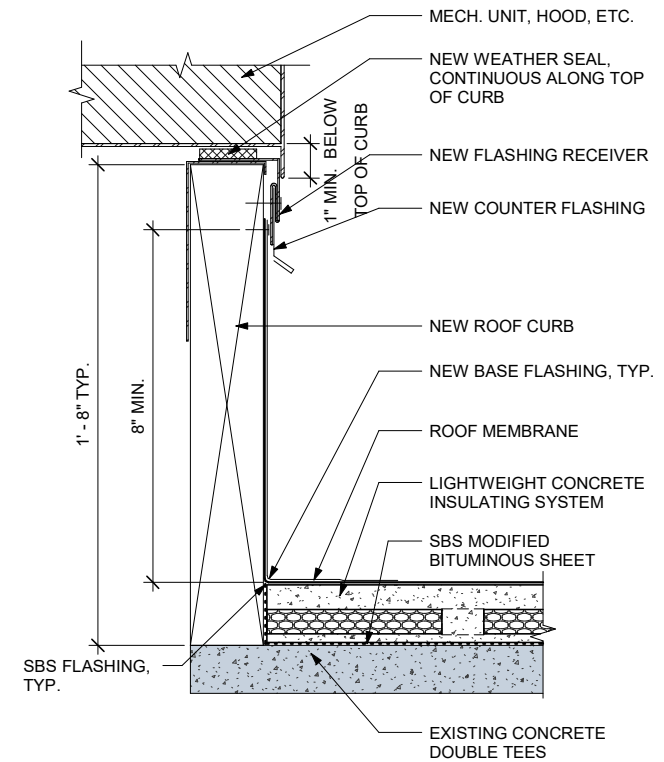
OTTAWA COUNTY JAIL
ROOF REPLACEMENT
28 B ST. SE MIAMI, OK 74354



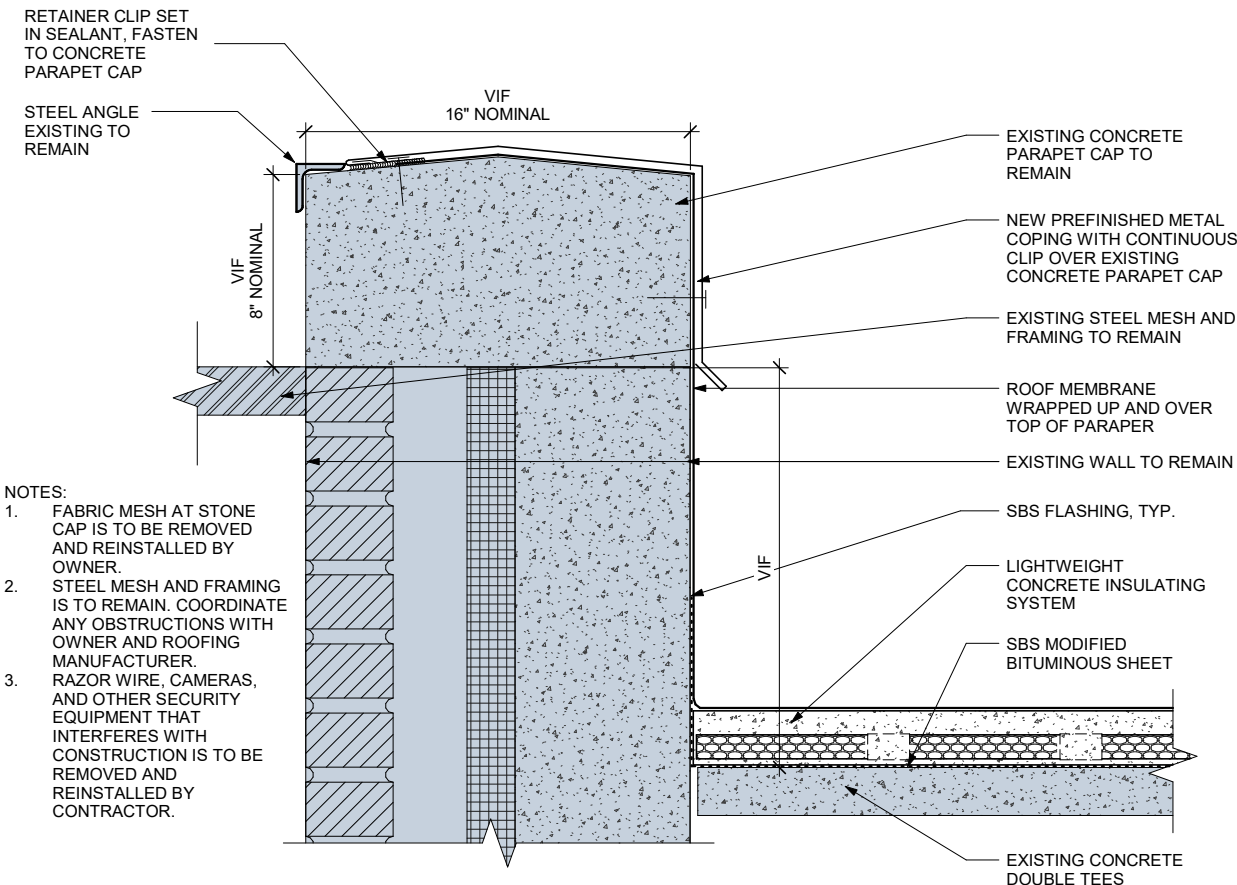
1 TYPICAL COPING DETAIL
3" = 1'-0"



2 DETAIL AT WALL - SOUTH ROOF
1 1/2" = 1'-0"

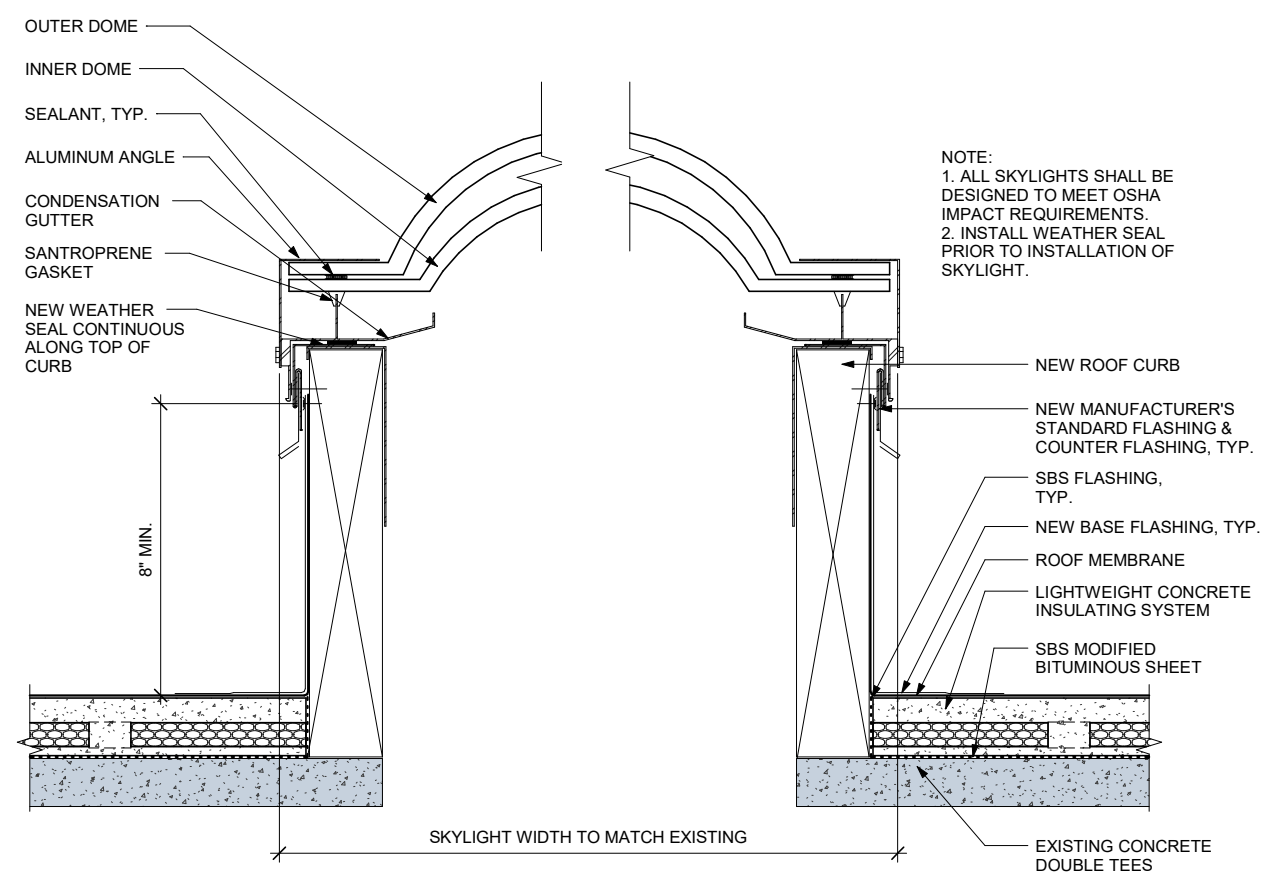


3 TYPICAL ROOF CURB DETAIL
3" = 1'-0"



- NOTES:**
1. FABRIC MESH AT STONE CAP IS TO BE REMOVED AND REINSTALLED BY OWNER.
 2. STEEL MESH AND FRAMING IS TO REMAIN. COORDINATE ANY OBSTRUCTIONS WITH OWNER AND ROOFING MANUFACTURER.
 3. RAZOR WIRE, CAMERAS, AND OTHER SECURITY EQUIPMENT THAT INTERFERES WITH CONSTRUCTION IS TO BE REMOVED AND REINSTALLED BY CONTRACTOR.

4 TYPICAL COPING DETAIL @ EXERCISE YARDS
3" = 1'-0"



6 SKYLIGHT DETAIL
3" = 1'-0"

PROJECT NO.: 787
SUBMITTAL: FINAL
ISSUE DATE: 11/10/21
PROJ. MANAGER: JKH
DESIGNED BY: KDR
DRAWN BY: AMS

REVISIONS:		
No.	Description	Date
2	ADDENDUM 2	1.3.21

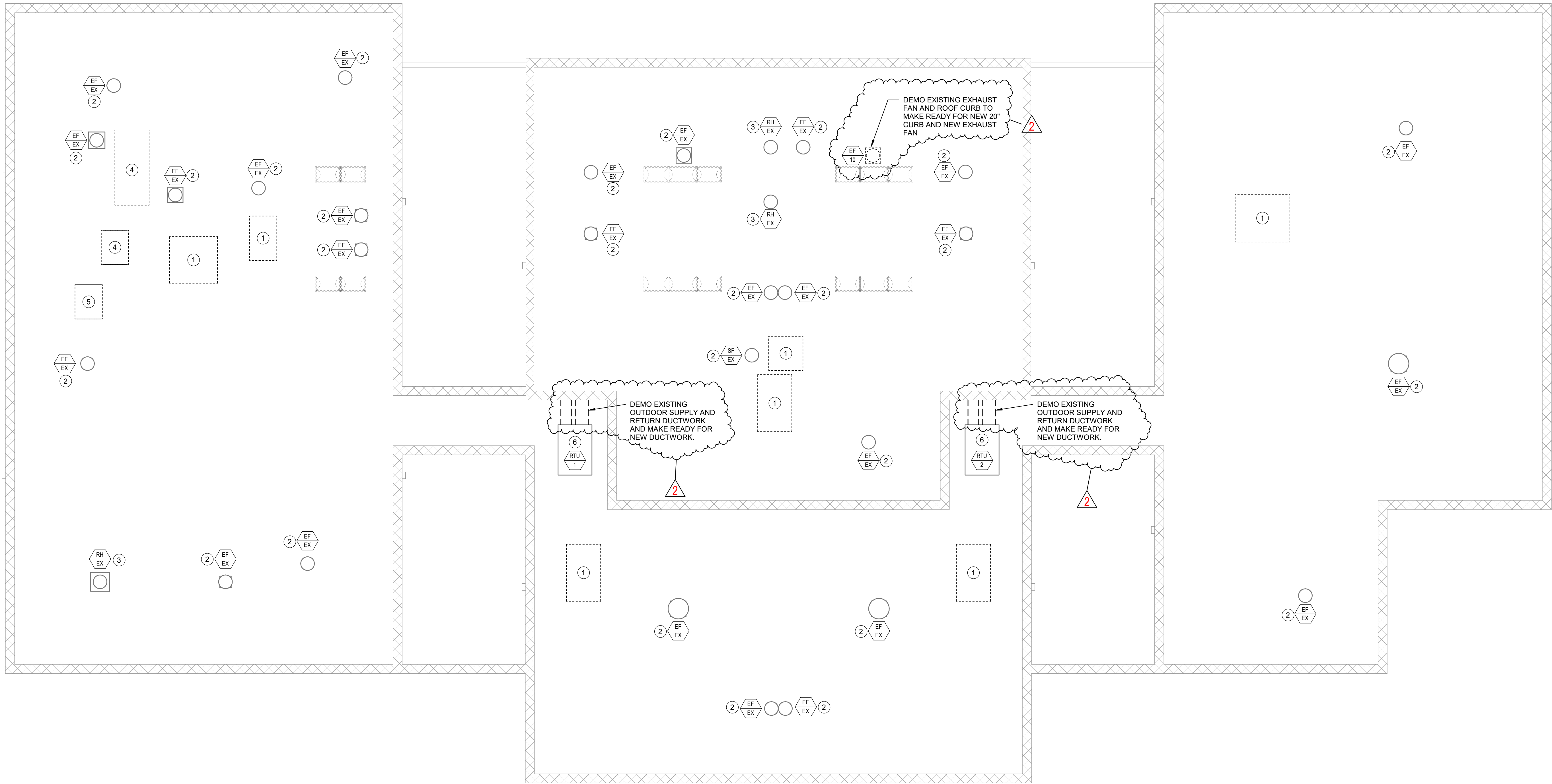
STATE OF OKLAHOMA
JENNIFER HAMMOCK
REGISTERED ARCHITECT
11/10/21

SHEET 04 OF 09

**ENLARGED
DETAILS**

A2-01

787 PRINT DATE: 1/3/2022 12:03:59 PM



1 MECHANICAL ROOF DEMO PLAN
1/8" = 1'-0"

KEYNOTES	
1	REMOVE EXISTING RTU AND RTU CURB TO MAKE READY FOR NEW 20" RTU CURBS AND NEW RTU
2	REMOVE EXISTING FAN AND RETAIN FOR REUSE. REMOVE EXISTING ROOF CURB TO MAKE READY FOR NEW 20" ROOF CURB.
3	REMOVE ROOF MOUNTED HOOD AND RETAIN FOR REUSE. REMOVE EXISTING ROOF CURB TO MAKE READY FOR NEW 20" ROOF CURB.
4	REMOVE EXISTING MAKEUP AIR UNIT, MAKEUP AIR UNIT ROOF CURB, MAKEUP AIR UNIT CONDENSING UNIT AND MAKEUP AIR UNIT CONDENSING ROOF CURB TO MAKE READY FOR NEW MAKEUP AIR UNIT AND 20" ROOF CURB.
5	CAPTURE REFRIGERANT FROM WALK-IN COOLER REFRIGERANT CIRCUIT. REMOVE AND RETAIN EXISTING WALK-IN COOLER CONDENSING UNIT FOR REUSE. REMOVE EXISTING ROOF CURB.
6	REMOVE RTU AND RETAIN FOR REUSE. REMOVE EXISTING ROOF CURB TO MAKE READY FOR NEW 20" ROOF CURB ONTO WHICH THE RETAINED RTU WILL BE PLACED.

OTTAWA COUNTY JAIL
ROOF/RTU REPLACEMENT
28 B ST. SE MIAMI, OK 74354

PROJECT NO.: 787
SUBMITTAL: FINAL
ISSUE DATE: 11/10/21
PROJ. MANAGER: KTM
DESIGNED BY: NER
DRAWN BY: NER

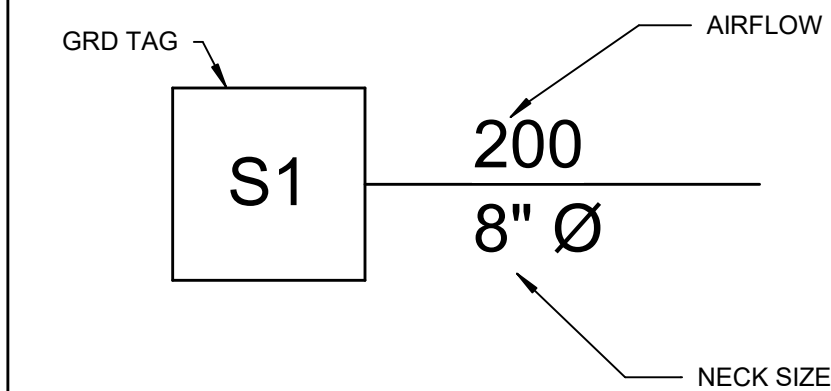
No.	Description	Date
2	ADDENDUM 02	1.3.22



MECHANICAL ABBREVIATIONS:

AAV	AUTOMATIC AIR VENT (VALVE)	ID	INSIDE DIAMETER
AC	AIR CONDITIONING UNIT OR AIR COMPRESSOR	IN OR "	INCH
ACH	AIR CHANGES PER HOUR	IN W.C.	INCHES WATER COLUMN
AFF	ABOVE FINISHED FLOOR	IN W.G.	INCHES WATER GAUGE
AHU	AIR HANDLING UNIT	INSUL.	INSULATION
APD	AIR PRESSURE DROP	KW	KILOWATT
APPROX	APPROXIMATE	LAT	LEAVING AIR TEMPERATURE
ARCH	ARCHITECT/ARCHITECTURAL	LBS	POUNDS
AVG	AVERAGE	LDB	LEAVING DRY BULB TEMPERATURE
		LL	LANDLORD
BAS	BUILDING AUTOMATION SYSTEM	LVG	LEAVING
BDD	BACK DRAFT DAMPER	LWB	LEAVING WET BULB TEMPERATURE
BF	BOILER FEED	LWT	LEAVING WATER TEMPERATURE
BHP	BRAKE HORSEPOWER		
BOD	BOTTOM OF DUCT	MAINT	MAINTENANCE
BOP	BOTTOM OF PIPE	MAX	MAXIMUM
BTUH	BRITISH THERMAL UNIT PER HOUR	MBH	THOUSAND BTU PER HOUR
		MCA	MINIMUM CIRCUIT AMPACITY
CA	COMPRESSED AIR	MD	MOTORIZED DAMPER
CAV	CONSTANT AIR VOLUME TERMINAL UNIT	MECH	MECHANICAL
CC	COOLING COIL	MIN	MINIMUM OR MINUTE(S)
CCW	COUNTER CLOCKWISE	MISC	MISCELLANEOUS
CD	CONDENSATE DRAIN	MOCP	MAXIMUM OVERCURRENT PROTECTION
CFH	CUBIC FEET PER HOUR		
CFM	CUBIC FEET PER MINUTE	NC	NORMALLY CLOSED OR NOISE CRITERIA
CH	CHILLER	NIC	NOT IN CONTRACT
CI	CAST IRON	NK	NECK
CL	CENTER LINE	NO	NORMALLY OPEN
CONT	CONTINUOUS, CONTINUATION	NO. OR #	NUMBER
CR	CONDENSATE RETURN	NR	NOT REQUIRED
CT	COOLING TOWER	NTS	NOT TO SCALE
CU	CONDENSING/ER UNIT		
CU FT	CUBIC FEET	OA	OUTSIDE AIR
CUH	CABINET UNIT HEATER	OBD	OPPOSED BLADE DAMPER
CW	CLOCKWISE	OD	OUTSIDE DIAMETER
DB	DRY BULB TEMPERATURE	P	PUMP
DDC	DIRECT DIGITAL CONTROL	PA	PASCAL
DEG.F	DEGREE FARENHEIT	PC	PLUMBING CONTRACTOR
DH	DUCT HEATER	PH	PHASE
DIA	DIAMETER	PLBG	PLUMBING
DIM	DIMENSION	PRESS	PRESSURE
DN	DOWN	PRV	PRESSURE REDUCING VALVE
DP	DIFFERENTIAL PRESSURE		
DWG	DRAWING	R	RETURN
DX	DIRECT EXPANSION	RA	RETURN AIR
		RC	REHEAT COIL
(E)	EXISTING	REQ'D	REQUIRED
EA	EACH OR EXHAUST AIR	RF	RETURN FAN
EAT	ENTERING AIR TEMPERATURE	RH	RELATIVE HUMIDITY
EBB	ELECTRIC BASEBOARD HEATER	RM	ROOM
EC	ELECTRICAL CONTRACTOR	RPM	REVOLUTIONS PER MINUTE
EDB	ENTERING DRY BULB TEMPERATURE	RTU	ROOFTOP TERMINAL UNIT
EER	ENERGY EFFICIENCY RATIO		
EF	EXHAUST FAN	S	SUPPLY
EFF	EFFICIENCY	SA	SUPPLY AIR OR SOUND ATTENUATOR
ELEV	ELEVATION	SD	SMOKE DAMPER OR SMOKE DETECTOR
ELEC	ELECTRIC/ELECTRICAL	SF	SUPPLY FAN
ENT	ENTERING	SP	STATIC PRESSURE
EQUIP	EQUIPMENT	SPECS	SPECIFICATIONS
ESP	EXTERNAL STATIC PRESSURE	SQ	SQUARE
ET	EXPANSION TANK	SQFT	SQUARE FEET
EUH	ELECTRIC UNIT HEATER	SS	STAINLESS STEEL
EWB	ENTERING WET BULB TEMPERATURE	STD	STANDARD
EWT	ENTERING WATER TEMPERATURE	STM	STEAM
EXIST	EXISTING	STRUC	STRUCTURE/STRUCTURAL
F&T	FLOAT & THERMOSTATIC STEAM TRAP	T	THERMOSTAT
FC	FAN COIL	TEF	TOILET EXHAUST FAN
FD	FIRE DAMPER	TEMP	TEMPERATURE
FLA	FULL LOAD AMPERES	TSP	TOTAL STATIC PRESSURE
FLEX	FLEXIBLE	TYP	TYPICAL
FP	FIRE PROTECTION		
FPB	FAN POWERED TERMINAL UNIT	UC	UNDER-CUT (DOOR)
FFM	FEET PER MINUTE	UGRD	UNDERGROUND
FPS	FEET PER SECOND	UH	UNIT HEATER (HYDRONIC OR STEAM)
FRP	FIBERGLASS REINFORCED PLASTIC		
FSD	FIRE/SMOKE DAMPER	V	VOLT
FT	FEET OR FLASH TANK	VAV	VARIABLE AIR VOLUME
FTR	FIN TUBE RADIATION (HOT WATER)	VD	VOLUME DAMPER
FV	FACE VELOCITY	VEL	VELOCITY
		VERT	VERTICAL
GAL	GALLON	VFD	VARIABLE FREQUENCY DRIVE
GC	GENERAL CONTRACTOR	VSD	VARIABLE SPEED DRIVE
GD	GRAVITY DAMPER	VTR	VENT THROUGH ROOF
GPH	GALLONS PER HOUR		
GPM	GALLONS PER MINUTE	W	WATT
		WI	WITH
H	HUMIDISTAT	WB	WET BULB TEMPERATURE
HC	HEATING COIL	WC	WATER COLUMN
HEPA	HIGH EFFICIENCY PARTICULATE AIR FILTER	WPD	WATER PRESSURE DROP
HP	HORSEPOWER OR HEAT PUMP	WT	WEIGHT
HR	HYDRONIC RADIANT PANEL		
HRP	HOUR		
HTG	HEATING		
HUM	HUMIDIFIER		
HVAC	HEATING, VENTILATION & AIR CONDITIONING		
HX	HEAT EXCHANGER		
HZ	HERTZ		

GRD CALLOUT LEGEND



GENERAL MECHANICAL NOTES

- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS AND AS REQUIRED BY CODE.
- DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY.
- INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS, AND APPLICABLE CODES AND REGULATIONS.
- COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL WORK, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
- TESTING, ADJUSTING, AND BALANCING AGENCY SHALL BE A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). TESTING, ADJUSTING AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH AABC STANDARDS.
- CONTRACTOR TO COMPLY WITH ALL LOCAL CODES AND REQUIREMENTS: 2018 IMC AND 2018 IFGC, 2006 IECC.
- ALL OUTSIDE AIR INTAKES TO BE A MINIMUM OF 10' FROM ANY MECHANICAL EXHAUST, OR PLUMBING VENTS.
- DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH MOST RECENT SMACNA STANDARDS.
- ALL DUCT DIMENSIONS SHOWN ARE CLEAR INSIDE DIMENSIONS. INCREASE DUCT SIZE AS NECESSARY TO ACCOUNT FOR DUCT LINER.
- SUPPORTS FOR MECHANICAL SYSTEM PIPING MUST MEET THE HORIZONTAL AND VERTICAL SPACING PROVISIONS IN RESPECTIVE MECHANICAL CODE.
- EACH DUCT BRANCH TAKE-OFF SHALL HAVE A MANUAL VOLUME DAMPER.
- COORDINATE DIFFUSER, REGISTER, AND GRILLE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS, LIGHTING, AND OTHER CEILING ITEMS AND MAKE MINOR DUCT MODIFICATIONS TO SUIT.
- REFER TO SPECIFICATIONS AND PROJECT MANUAL FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- THESE DRAWINGS REFLECT A SYSTEM DESIGNED AROUND SPECIFIED REFERENCE PRODUCTS. THE SELECTION OF WHICH HAS INFLUENCED THE DESIGNS OF OTHER TRADES. IF SUBSTITUTE MANUFACTURERS, SIZES, OR MODEL NUMBERS ARE BID OR SUBMITTED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL DIFFERENCES PRIOR TO BID. ALL COSTS OF ALL TRADES ASSOCIATION WITH THE SUBSTITUTIONS SHALL BE INCLUDED IN THE BID.
- COORDINATION OF ALL MODIFICATIONS TO EACH DISCIPLINE WHICH RESULT FROM SUBSTITUTION OF EQUIPMENT OR MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SUBSTITUTIONS WHICH ARE INSTALLED AND SUBSEQUENTLY ARE PROVEN UNSATISFACTORY BY OWNER AND/OR ENGINEER WITHIN THE WARRANTY PERIOD, SHALL BE REMOVED COMPLETELY BY THE CONTRACTOR AND REPLACED WITH THE ORIGINAL DESIGN OR CORRECTED AS DIRECTED BY THE ENGINEER WITHOUT ADDITIONAL COST TO OWNER.
- CONTRACTOR SHALL PROVIDE AND INSTALL ALL AIR DEVICES WITH MOUNTING SYSTEM DESIGNED FOR MOUNTING SURFACE TYPE.
- COORDINATE FINAL PLACEMENT OF ALL THERMOSTATS WITH WALL-MOUNTED DEVICES AND OWNER'S REPRESENTATIVE. MOUNT PER ADA REQUIREMENTS. ANY THERMOSTAT THAT IS REQUIRED TO BE MOUNTED ON AN EXTERIOR WALL SHALL BE MOUNTED ON AN INSULATED PAD.

MECHANICAL SYMBOL LEGEND

	ISOLATION VALVE - BALL		EXHAUST GRILLE - CEILING
	Y-STRAINER WITH VALVE & HOSE CONNECTION		WALL GRILLE
	THERMOMETER		MANUAL VOLUME DAMPER
	CONTROL WELL / TEST PORT		CONTINUATION
	TRIPLE DUTY VALVE - ISOLATION, CHECK, CIRCUIT SETTER		CLEANOUT
	REDUCER		FLOW ARROW
	ELBOW DOWN		PUMP - FLOW IN DIRECTION OF ARROW
	PRESSURE GAUGE		KEY NOTE
	AIR VENT		EQUIPMENT TAG
	MOTORIZED 3-WAY VALVE		SUPPLY DIFFUSER - CEILING
	CIRCUIT SETTER		RETURN GRILLE - CEILING
	CONNECT TO EXISTING		FAN AND AIR CURTAIN CONTROLS

MECHANICAL DEMO SCOPE

- DEMOLISH EXISTING RTU'S AS SHOWN TO MAKE READY FOR 20" NEW ROOF CURBS.
A. REMOVE AND RETAIN RTU-1, AND RTU-2.
- REMOVE ALL ROOF MOUNTED FANS AND HOODS, RETAIN FOR REUSE, AND MAKE READY FOR 20" NEW ROOF CURBS.
A. DEMO ALL EXISTING ROOF CURBS AND MAKE READY FOR 20" NEW ROOF CURBS.
- DEMO EXISTING MAKEUP AIR UNIT AND MAKEUP AIR UNIT CURB.
A. DEMO EXISTING MAKEUP AIR UNIT CONDENSING UNIT.
- CAPTURE REFRIGERANT FROM WALK-IN COOLER REFRIGERANT CIRCUIT. REMOVE AND RETAIN EXISTING WALK-IN COOLER CONDENSING UNIT FOR REUSE.
~~PROVIDE NEW CONTROL SYSTEM AND NEW CONTROLS FOR RTU'S.~~
- REMOVE EF-10 AND ROOF CURB AND MAKE READY FOR NEW ROOF CURB AND NEW FAN.
- ENSURE ALL WALL/ROOF OPENINGS DUE TO DEMO ARE SEALED AND SECURED DURING CONSTRUCTION.

MECHANICAL SCOPE

- PERFORM MECHANICAL DEMO SCOPE.
- PROVIDE NEW RTU'S AND NEW 20" ROOF CURBS IN THE SAME LOCATIONS AS THE PREVIOUS RTU'S AND CONNECT TO EXISTING DUCTWORK, ELECTRICAL POWER, AND NATURAL GAS PIPING.
A. RECONFIGURE EXISTING DUCTWORK, ELECTRICAL POWER, AND NATURAL GAS PIPING AS NECESSARY TO ACCOMMODATE NEW UNITS.
- INSTALL RETAINED EXHAUST FANS AND HOODS ON NEW 20" ROOF CURBS, RECONNECT TO ELECTRICAL POWER.
- PROVIDE NEW MAU-1, MAU-1 CONDENSERS, AND 20" ROOF CURBS AS SHOWN PER M-1.
- REINSTALL WALK-IN COOLER CONDENSING UNIT. PROVIDE NEW 20" ROOF CURB OR ROOF MATERIAL COMPATIBLE ROOF RAILS. RECONNECT WALK-IN COOLER CONDENSING UNIT TO ELECTRICAL POWER. PROVIDE NEW REFRIGERANT LINES FROM WALK-IN COOLER TO CONDENSING UNIT AND RECHARGE WITH REFRIGERANT.
- ~~PROVIDE NEW CONTROL SYSTEM AND NEW CONTROLS FOR RTU'S.~~
- PROVIDE NEW EF-10 AND 20" ROOF CURB AND RECONNECT TO ELECTRICAL POWER.

JOB SPECIFIC MECHANICAL NOTES

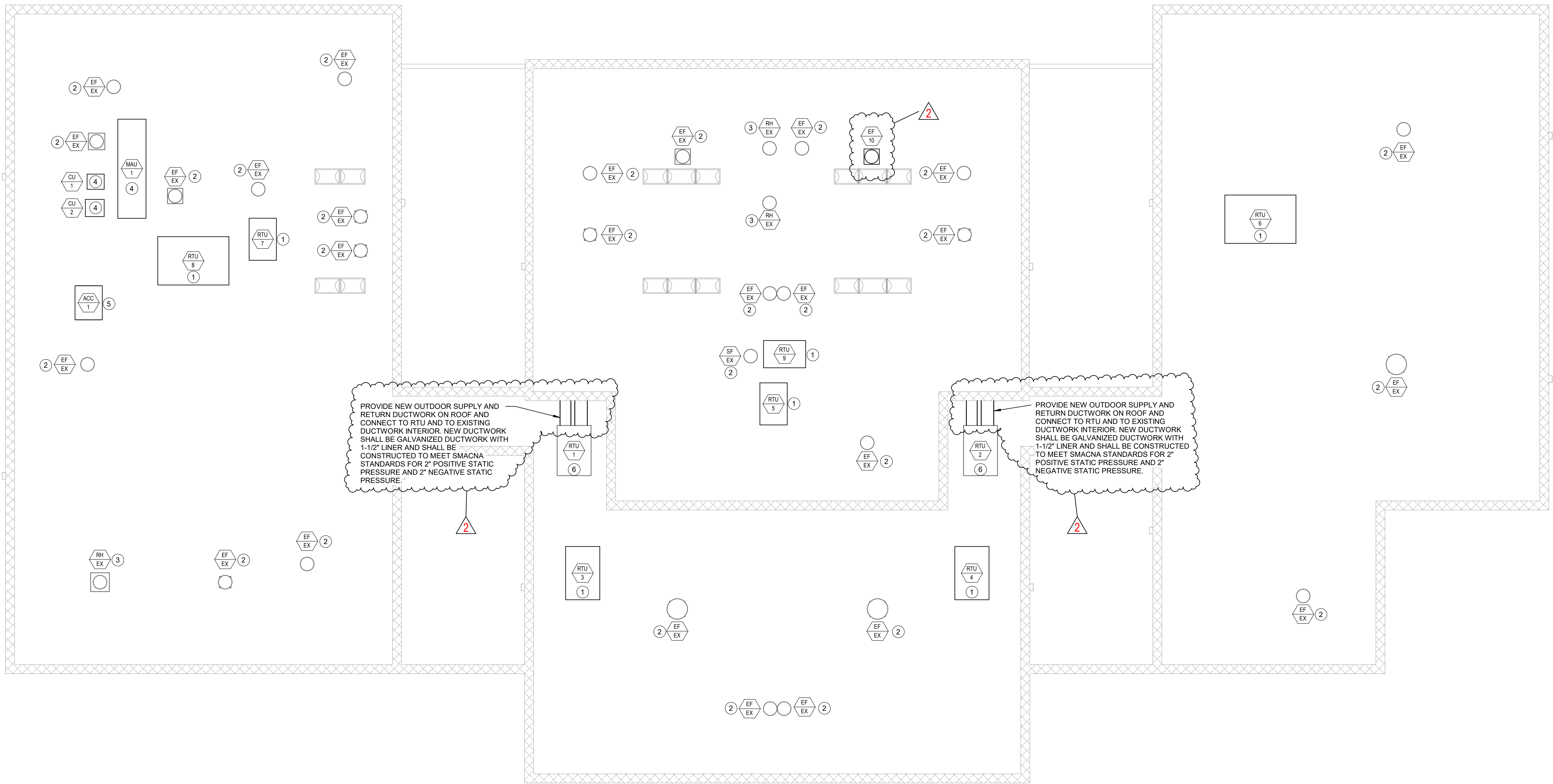
- GAS PIPING ON THE ROOF SHALL BE SUPPORTED WITH EATON DURA-BLOK OR SIMILAR SUPPORTS. GAS PIPING SHALL BE SUPPORTED AT CODE REQUIRED INTERVALS AND WITHIN 12" OF EVERY CHANGE OF DIRECTION.
- ALL NEW GAS PIPING SHALL BE PAINTED YELLOW.
- ALL NEW OUTDOOR DUCTWORK SHALL HAVE DUCT LINE WITH INSULATION VALUE OF R-8 OR GREATER.
- ALL NEW INDOOR DUCTWORK SHALL BE WRAPPED OR LINED WITH INSULATION VALUE OF R-6 OR GREATER.
- PROVIDE NEW CONDENSATE LINES FOR NEW AND EXISTING RTU'S. TRAP CONDENSATE LINES AND ROUTE TO ROOF DRAIN OR SCUPPER. PROVIDE CLEANOUTS AT EVERY CHANGE OF DIRECTION LARGER THAN 45". CONDENSATE LINES SHALL BE 1" OR LARGER.
- ALL OUTSIDE AIR INTAKES SHALL BE GREATER THAN 10' FROM ANY POINT OF EXHAUST OR ANY PLUMBING VENTS. PROVIDE OUTDOOR AIR DUCTWORK EXTENSIONS AS NECESSARY TO ACCOMPLISH THE REQUIRED DISTANCE.
- PROVIDE TEST AND BALANCE ON ALL RTU'S AND MAU TO MATCH THE AIRFLOWS SHOWN ON THE EQUIPMENT SCHEDULES.
- ALL NATURAL GAS PIPING IS LOW PRESSURE.
- VERIFY POWER FEEDS FOR ALL NEW EQUIPMENT PRIOR TO SUBMITTING EQUIPMENT SUBMITTALS FOR APPROVAL AND REPORT POWER FEEDS TO ARCHITECT/ENGINEER IF POWER FEEDS ARE NOT ADEQUATE. IF OVERCURRENT PROTECTION IS HIGHER THAN ALLOWED BY THE EQUIPMENT PROVIDE A NEW BREAKER WITH THE PROPER OVER CURRENT PROTECTION.
- VERIFY EXISTING CONVENIENCE RECEPTACLES ARE INSTALLED WITHIN CODE REQUIRED DISTANCES FROM EQUIPMENT AND PROVIDE NEW CONVENIENCE RECEPTACLES AND POWER AS REQUIRED TO COMPLY WITH CODE.
- PROVIDE NEW ELECTRICAL DISCONNECTS FOR EACH PIECE OF NEW EQUIPMENT.
- ALL NEW ROOF CURBS SHALL BE 20" AND INSULATED.

CONTROL NOTES

- INTERLOCK MAKEUP AIR UNIT WITH KITCHEN EXHAUST FAN SO MAKEUP AIR UNIT TURNS ON WHEN EXHAUST FAN IS ON. PROVIDE TEMPERATURE CONTROLS FOR MAKEUP AIR UNIT PER MANUFACTURER'S INSTRUCTIONS.
- PROVIDE NEW DDC CONTROL SYSTEM FOR ALL NEW AND EXISTING RTU'S AND INTERLOCK RTU'S WITH CONTROL SYSTEM.
A. CONTROL SYSTEM TO HAVE A WEB-BASED FRONT END SET UP ON EXISTING COMPUTER LOCATED IN THE TOWER.
B. PROVIDE BACNET CARD FOR ALL NEW RTU'S AND CONNECT TO CONTROL SYSTEM.
C. PROVIDE BACNET CARD FOR ALL EXISTING RTU'S AND CONNECT TO CONTROL SYSTEM.
D. PROVIDE TEMPERATURE AND HUMIDITY SENSOR IN RETURN DUCT OF EACH RTU EN LIEU OF SPACE SENSORS.
E. ENSURE CONTROL SYSTEM HAS THE ABILITY TO CONTROL TEMPERATURE, HUMIDITY, AND ECONOMIZER CYCLE WITH AUTOMATIC CHANGEOVER BETWEEN MODES.
F. SET UP TRENDS FOR RETURN AIR TEMPERATURE AND HUMIDITY FOR EACH UNIT.
G. SET UP ALARMS TO ALARM FRONT END IF TEMPERATURE OR HUMIDITY ARE MORE THAT 5°F OR 5% RH OUTSIDE OF TEMPERATURE OR HUMIDITY SETPOINT.
H. PROVIDE 2 HOURS OF OWNER TRAINING AFTER SUBSTANTIAL COMPLETION.
I. PROVIDE 2 HOURS OF OWNER FOLLOW-UP TRAINING SIX MONTHS AFTER SUBSTANTIAL COMPLETION.
J. PROVIDE 20 HOURS OF ON-CALL CONTROL LABOR TO BE USED BY OWNER AT THEIR DISCRESSION WITHIN FIRST YEAR AFTER SUBSTANTIAL COMPLETION FOR ADDITIONAL TRAINING OR RECONFIGURING/REPROGRAMING OF CONTROLS.
- INTERLOCK RTU-5, RTU-6, RTU-8 & RTU-9 RETURN AIR SMOKE DETECTORS FOR FAN SHUTDOWN AND INTERLOCK WITH FIRE ALARM SYSTEM TO ENUNCIATE FIRE ALARM SYSTEM WHEN SMOKE ALARM IS ACTIVATED.
- INTERLOCK FIRE ALARM SYSTEM WITH RTU-1, RTU-2, RTU-3, RTU-4, & RTU-7 ECONOMIZER DAMPER TO OPEN ECONOMIZER DAMPERS 100% AND RUN FAN WHEN SMOKE ALARM IS ACTIVATED.
- ENSURE EXISTING SMOKE EXHAUST FANS AND SMOKE EXHAUST FAN CONTROLS ARE INTERLOCKED WITH SMOKE ALARM SYSTEM TO TURN ON WHEN SMOKE ALARM IS ACTIVATED.

No.	Description	Date
2	ADDENDUM 02	1.3.22

787 PRINT DATE: 1/3/2022 12:03:57 PM



1 MECHANICAL ROOF PLAN
1/8" = 1'-0"

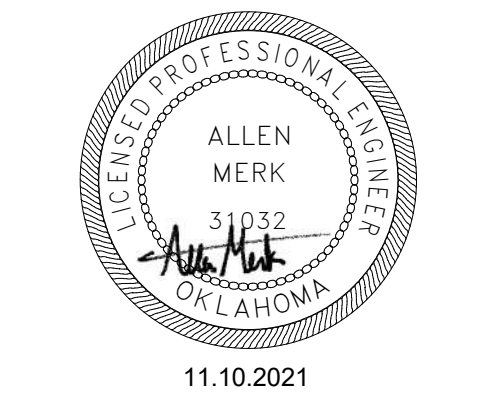
KEYNOTES	
1	PROVIDE NEW RTU AND NEW 20" INSULATED ROOF CURB IN THE SAME LOCATION AS PREVIOUS RTU. CONNECT TO EXISTING DUCTWORK, ELECTRICAL POWER, AND NATURAL GAS PIPING. MODIFY EXISTING DUCTWORK, ELECTRICAL POWER, AND NATURAL GAS PIPING AS NECESSARY TO ACCOMMODATE NEW UNIT. RELOCATE POWER AND GAS PENETRATING THE ROOF AS NECESSARY TO ACCOMMODATE NEW 20" ROOF CURB.
2	PROVIDE NEW 20" INSULATED ROOF CURB, INSTALL RETAINED FAN AND DAMPER ON CURB AND CONNECT TO EXISTING ELECTRICAL POWER.
3	PROVIDE NEW 20" INSULATED ROOF CURB, INSTALL RETAINED ROOF HOOD AND DAMPER ON CURB AND CONNECT TO EXISTING ELECTRICAL POWER.
4	PROVIDE NEW MAU-1, MAU-1 CONDENSERS, 20" ROOF CURB, AND ROOF RAILS. MAU-1 SHALL BE INSTALLED WITH 20" ROOF CURB. MAU-1 CONDENSERS SHALL BE INSTALLED WITH ROOF MATERIAL COMPATIBLE ROOF RAILS. CONNECT TO EXISTING DUCTWORK, ELECTRICAL POWER, AND NATURAL GAS PIPING. MODIFY EXISTING DUCTWORK, ELECTRICAL POWER, AND NATURAL GAS AS NECESSARY TO ACCOMMODATE NEW UNIT. RELOCATE POWER AND GAS PENETRATING THE ROOF AS NECESSARY TO ACCOMMODATE NEW 20" ROOF CURB.
5	REINSTALL WALK-IN COOLER CONDENSING UNIT AND CONNECT TO EXISTING ELECTRICAL POWER. PROVIDE NEW REFRIGERANT LINES FROM WALK-IN COOLER TO CONDENSING UNIT AND RECHARGE WITH REFRIGERANT. PROVIDE NEW 20" ROOF CURB OR ROOF RAILS FOR CONDENSING UNIT.
6	PROVIDE NEW 20" INSULATED ROOF CURB, INSTALL RETAINED RTU AND CONNECT TO EXISTING DUCTWORK, ELECTRICAL POWER AND NATURAL GAS PIPING. MODIFY EXISTING DUCTWORK, ELECTRICAL POWER, AND NATURAL GAS PIPING AS NECESSARY TO ACCOMMODATE NEW 20" ROOF CURB. RELOCATE POWER AND GAS PENETRATING THE ROOF AS NECESSARY TO ACCOMMODATE NEW 20" ROOF CURB.



OTTAWA COUNTY JAIL
ROOF/RTU REPLACEMENT
28 B ST. SE MIAMI, OK 74354

PROJECT NO.: 787
SUBMITTAL: FINAL
ISSUE DATE: 11/10/21
PROJ. MANAGER: KTM
DESIGNED BY: NER
DRAWN BY: NER

REVISIONS:		
No.	Description	Date
2	ADDENDUM 02	1.3.22



MECHANICAL SCHEDULES

MAU-1: MAKE-UP AIR UNIT
MANUFACTURER & MODEL: CAPTIVE AIRE, A2-IBT-300-20D-MPU
ELECTRICAL: 208V/3PH, MCA = 10.4, MOCP = 20A
FAN: 3250 CFM, 0.750" ESP, HP=2, 1423 RPM
WEIGHT: 2052
COOLING: 88,200 BTUH TOTAL, 64,400 BTUH SENSIBLE, 17,800 BTUH LATENT, EAT(DB/WB) = 94.0°F/76°F
HEATING: NATURAL GAS, INPUT = 266,078 BTUH, OUTPUT = 212862, 55°F TEMPERATURE RISE (MINIMUM)
OPTIONS: MOTORIZED BACKDRAFT DAMPER
(2) CONDENSING UNITS (SEE BELOW FOR CONDENSER INFORMATION).
VAV SUPPLY FAN WITH INTEGRAL VFD (FACTORY MOUNTED AND WIRED)
STAINLESS STEEL HEAT BURNER AND EXCHANGER WITH MODULATING NATURAL GAS HEAT AT 6:1 TURNDOWN AND 25 YEAR PARTS WARRANTY
20" INSULATED ROOF CURB
INSTALLATION NOTES: PROVIDE PROGRAMMABLE THERMOSTAT TO CONTROL HEATING AND COOLING BASED ON SPACE TEMPERATURE TO MAINTAIN 70°F IN THE SPACE. INSTALL THERMOSTAT IN KITCHEN. COORDINATE EXACT LOCATION WITH OWNER.
PROVIDE NEW 20" ROOF CURB
PROVIDE ROOF RAILS (ROOFED INTO ROOF) TO PLACE CONDENSING UNITS.
TRAP CONDENSATE AND ROUTE TO ROOF DRAIN OR SCUPPER. PROVIDE NEW ISOLATION VALVE, DIRT LEG, AND UNION AT GAS CONNECTION.
PROVIDE REFRIGERANT PIPING, POWER, AND CONTROL WIRING BETWEEN THE CONDENSING UNITS AND THE MAKEUP AIR UNIT PER THE MANUFACTURER'S INSTRUCTIONS.
PROVIDE SEPARATE 120V ELECTRICAL POWER FOR STANDING POWER. 120V MUST BE RUN BY ELECTRICIAN FROM BUILDING PANEL TO MAU SWITCH.
PROVIDE SUPPLY AIR SMOKE DETECTOR, INTERLOCK WITH UNIT FOR FAN SHUTDOWN, AND INTERLOCK WITH FIRE ALARM.
CONDENSING UNIT 1:
ELECTRICAL: 208V/3PH, MCA = 14.5A, MOCP = 20A
(CONDENSER WILL NEED IT'S OWN POWER FEED. REFER TO CONDENSER ELECTRICAL NOTES BELOW)
COOLING: 3 TONS
EFFICIENCY: 14 SEER
WEIGHT: 133 LBS
CONDENSING UNIT 2:
ELECTRICAL: 208V/3PH, MCA = 21.4A, MOCP = 30A
(CONDENSER WILL NEED IT'S OWN POWER FEED. REFER TO CONDENSER ELECTRICAL NOTES BELOW)
COOLING: 5 TONS
EFFICIENCY: 14 SEER
WEIGHT: 156 LBS
CONDENSING UNIT ELECTRICAL NOTES:
BOTH CONDENSING UNITS SHALL BE FED FROM POWER THAT WAS FEEDING THE EXISTING 10-TON CONDENSING UNIT THAT WAS REMOVED. THE EXISTING BREAKER IS A 208V/3PH BREAKER RATED FOR 70A. PROVIDE NEW NEMA 3 FUSED DISCONNECTS FOR EACH CONDENSING UNIT.

EF-10: ROOF MOUNTED UPBLAST SMOKE EXHAUST FAN
MANUFACTURER & MODEL: TWIN CITY - BCRUSH-140B
ELECTRICAL: 208V/3PH
PERFORMANCE: 1,700 CFM @ 0.5" ESP
MOTOR: 1/3 HP
FAN SPEED: 1140 RPM
DRIVE: BELT
FEATURES: FAN SHALL BE UL LISTED FOR SMOKE CONTROL SYSTEMS (500°F FOR 4 HOURS AND 1,000°F FOR 15 MINUTES). NEMA 3R DISCONNECT SWITCH. BACKDRAFT DAMPER, SECURITY HASP.
NOTES: REMOVE EXISTING ROOF CURB AND PROVIDE NEW 20" INSULATED ROOF CURB. IF EXISTING ROOF OPENING IS A DIFFERENT SIZE THAN THE NEW ROOF CURB, PROVIDE CURB ENLARGER OR REDUCER TO ENSURE EXISTING ROOF OPENING CAN BE USED WITHOUT MODIFICATION AND ROOF OPENING IS SECURE AND WATER-TIGHT. FIELD VERIFY EXISTING FAN MOTOR HP, VOLTAGE, AND PHASE PRIOR TO SUBMITTAL OF EXHAUST FAN. CONTACT ARCHITECT IF VOLTAGE/PHASE ARE DIFFERENT THAN SCHEDULED OR IF EXISTING FAN HORSEPOWER IS LESS THAN SCHEDULED FAN HORSEPOWER. RECONNECT FAN TO EXISTING ELECTRICAL POWER AND VERIFY PROPER OPERATION.

RTU-5: PACKAGED 6 TON ROOFTOP UNIT
MANUFACTURER & MODEL: DAIKIN, DRG0723W125FABACN
ELECTRICAL: 208V/3PH/MCA = 31.7 AMOCP = 45 A
FAN: 3250 CFM, 0.5" ESP, OUTSIDE AIR = 600 CFM
COOLING: 72,632 BTUH TOTAL, 55,259 BTUH SENSIBLE, 17,373 BTUH LATENT, EAT (DB/WB) = 80°F/67°F
HEATING: 2-STAGE NATURAL GAS, INPUT=125,000 BTUH, LOW OUTPUT = 75,900 BTUH, HIGH OUTPUT = 101,300 BTUH, 40°F TEMP RISE
WEIGHT = 750 LBS
EFFICIENCY: 17.1 IEER / 12.1 EER
OPTIONS/ACCESSORIES: PROVIDE BACNET CARD AND CONTROLS PER CONTROL NOTE ON M0-01, HAIL GUARD, HOT GAS REHEAT, LOW AMBIENT CONTROL, RETURN AIR SMOKE DETECTOR, LOW-LEAK DOWNFLOW ECONOMIZER FOR DDC CONTROLS W/ ENTHALPY SENSOR, 20" INSULATED ROOF CURB
INSTALLATION NOTES: PROVIDE NEW 20" ROOF CURB, TRAP CONDENSATE AND ROUTE TO ROOF DRAIN OR SCUPPER, PROVIDE NEW ISOLATION VALVE, DIRT LEG, AND UNION AT GAS CONNECTION. PROVIDE NEW ELECTRICAL DISCONNECT. INTERLOCK RETURN AIR SMOKE DETECTOR TO SHUT DOWN FAN AND INTERLOCK WITH FIRE ALARM SYSTEM.

RTU-6: PACKAGED 15 TON ROOFTOP UNIT
MANUFACTURER & MODEL: DAIKIN, MPS015B
ELECTRICAL: 208V/3PH/MCA = 81.0 AMOCP = 100 A
FAN: 6000 CFM, 0.5" ESP, 726 RPM, 2.5 HP, OUTSIDE AIR=1,500 CFM
COOLING: 184,435 BTUH TOTAL, 138,913 BTUH SENSIBLE, 45,522 BTUH LATENT, EAT (DB/WB) = 80°F/67°F
HEATING: 2-STAGE NATURAL GAS, INPUT=350,000 BTUH, OUTPUT = 284,000 BTUH, 54°F TEMP RISE
WEIGHT = 2146 LBS
EFFICIENCY: 14.8 IEER / 11.1 EER
OPTIONS/ACCESSORIES: PROVIDE BACNET CARD AND CONTROLS PER CONTROL NOTE ON M0-01, HAIL GUARD, HOT GAS REHEAT, LOW AMBIENT CONTROL, RETURN AIR SMOKE DETECTOR, LOW-LEAK DOWNFLOW ECONOMIZER FOR DDC CONTROLS W/ ENTHALPY SENSOR, 20" INSULATED ROOF CURB
INSTALLATION NOTES: PROVIDE NEW 20" ROOF CURB, TRAP CONDENSATE AND ROUTE TO ROOF DRAIN OR SCUPPER, PROVIDE NEW ISOLATION VALVE, DIRT LEG, AND UNION AT GAS CONNECTION. PROVIDE NEW ELECTRICAL DISCONNECT. INTERLOCK RETURN AIR SMOKE DETECTOR TO SHUT DOWN FAN AND INTERLOCK WITH FIRE ALARM SYSTEM.

RTU-7: PACKAGED 4 TON ROOFTOP UNIT
MANUFACTURER & MODEL: DAIKIN, DRG0483D115FABACN
ELECTRICAL: 208V/3PH/MCA = 25.4 AMOCP = 35 A
FAN: 1600 CFM, 0.5" ESP, OUTSIDE AIR = 400 CFM
COOLING: 47,763 BTUH TOTAL, 35,683 BTUH SENSIBLE, 12,080 BTUH LATENT, EAT (DB/WB) = 80°F/67°F
HEATING: 2-STAGE NATURAL GAS, INPUT=115,000 BTUH, LOW OUTPUT = 69,900 BTUH, HIGH OUTPUT = 93,200 BTUH, EAT = 55°F
WEIGHT = 692 LBS
EFFICIENCY: 17 SEER / 13 EER
OPTIONS/ACCESSORIES: PROVIDE BACNET CARD AND CONTROLS PER CONTROL NOTE ON M0-01, HAIL GUARD, HOT GAS REHEAT, LOW AMBIENT CONTROL, RETURN AIR SMOKE DETECTOR, LOW-LEAK DOWNFLOW ECONOMIZER FOR DDC CONTROLS W/ ENTHALPY SENSOR, 20" INSULATED ROOF CURB
INSTALLATION NOTES: PROVIDE 20" NEW ROOF CURB, TRAP CONDENSATE AND ROUTE TO ROOF DRAIN OR SCUPPER, PROVIDE NEW ISOLATION VALVE, DIRT LEG, AND UNION AT GAS CONNECTION. PROVIDE NEW ELECTRICAL DISCONNECT. INTERLOCK RETURN AIR SMOKE DETECTOR WITH FIRE ALARM SYSTEM. RUN FAN AND OPEN ECONOMIZER DAMPER 100% UPON ACTIVATION OF SMOKE DETECTOR .

RTU-8: PACKAGED 15 TON ROOFTOP UNIT
MANUFACTURER & MODEL: DAIKIN, MPS015B
ELECTRICAL: 208V/3PH/MCA = 81.0 AMOCP = 100 A
FAN: 6000 CFM, 0.5" ESP, 726 RPM, 2.5 HP, OUTSIDE AIR=1,500 CFM
COOLING: 184,435 BTUH TOTAL, 138,913 BTUH SENSIBLE, 45,522 BTUH LATENT, EAT (DB/WB) = 80°F/67°F
HEATING: 2-STAGE NATURAL GAS, INPUT=350,000 BTUH, OUTPUT = 284,000 BTUH, 54°F TEMP RISE
WEIGHT = 2146 LBS
EFFICIENCY: 14.8 IEER / 11.1 EER
OPTIONS/ACCESSORIES: PROVIDE BACNET CARD AND CONTROLS PER CONTROL NOTE ON M0-01, HAIL GUARD, HOT GAS REHEAT, LOW AMBIENT CONTROL, RETURN AIR SMOKE DETECTOR, LOW-LEAK DOWNFLOW ECONOMIZER FOR DDC CONTROLS W/ ENTHALPY SENSOR, 20" INSULATED ROOF CURB
INSTALLATION NOTES: PROVIDE NEW 20" ROOF CURB, TRAP CONDENSATE AND ROUTE TO ROOF DRAIN OR SCUPPER, PROVIDE NEW ISOLATION VALVE, DIRT LEG, AND UNION AT GAS CONNECTION. PROVIDE NEW ELECTRICAL DISCONNECT. INTERLOCK RETURN AIR SMOKE DETECTOR TO SHUT DOWN FAN AND INTERLOCK WITH FIRE ALARM SYSTEM.

RTU-9: PACKAGED 3 TON ROOFTOP UNIT
MANUFACTURER & MODEL: DAIKIN, DRDG0363D070FABACN
ELECTRICAL: 208V/3PH/MCA = 21.2 AMOCP = 30 A
FAN: 1200 CFM, 0.5" ESP, OUTSIDE AIR = 300 CFM
COOLING: 36,024 BTUH TOTAL, 27,064 BTUH SENSIBLE, 8,960 BTUH LATENT, EAT (DB/WB) = 80°F/67°F
HEATING: 2-STAGE NATURAL GAS, INPUT=70,000 BTUH, LOW OUTPUT = 42,500 BTUH, HIGH OUTPUT = 56,700 BTUH, 44°F TEMP RISE.
WEIGHT = 617 LBS
EFFICIENCY: 17.0 SEER / 12.8 EER
OPTIONS/ACCESSORIES: PROVIDE BACNET CARD AND CONTROLS PER CONTROL NOTE ON M0-01, HAIL GUARD, HOT GAS REHEAT, LOW AMBIENT CONTROL, RETURN AIR SMOKE DETECTOR, LOW-LEAK DOWNFLOW ECONOMIZER FOR DDC CONTROLS W/ ENTHALPY SENSOR, 20" INSULATED ROOF CURB
INSTALLATION NOTES: PROVIDE NEW 20" ROOF CURB, TRAP CONDENSATE AND ROUTE TO ROOF DRAIN OR SCUPPER, PROVIDE NEW ISOLATION VALVE, DIRT LEG, AND UNION AT GAS CONNECTION. PROVIDE NEW ELECTRICAL DISCONNECT. INTERLOCK RETURN AIR SMOKE DETECTOR TO SHUT DOWN FAN AND INTERLOCK WITH FIRE ALARM SYSTEM.

ACC-1: EXISTING AIR-COOLED CONDENSING UNIT
MANUFACTURER & MODEL: REFRIGERATED DESIGN TEXAS
ELECTRICAL: 208V/3PH, MCA = 15A, MOCP = 22A
COOLING: LOW TEMPERATURE COMPRESSOR = 4,000 BTUH, MEDIUM TEMPERATURE COMPRESSOR = 7,000 BTUH
INSTALLATION NOTES: EXISTING WALK-IN COOLER CONDENSING UNIT TO REMAIN. CONDENSING UNIT SHALL BE REMOVED AND RETAINED DURING CONSTRUCTION. EVACUATE REFRIGERANT LINES AND RETAIN REFRIGERANT FOR REUSE. DEMO EXISTING ROOF CURB AND PROVIDE NEW 20" ROOF CURB OR ROOF MATERIAL COMPATIBLE ROOF RAILS. REINSTALLATION REQUIRED UPON COMPLETION OF ROOF WORK. RECONNECT TO POWER. PROVIDE NEW ELECTRICAL DISCONNECT. RECONNECT TO REFRIGERANT PIPING, RECHARGE SYSTEM, AND INTERLOCK CONTROLS. ENSURE PROPER OPERATION OF SYSTEM RESUMES AFTER REINSTALLATION.

EF-EX: ROOF MOUNTED EXHAUST FAN
MANUFACTURER & MODEL: VARIES
ELECTRICAL: VARIES
PERFORMANCE: VARIES
FEATURES: VARIES
NOTES: EXISTING EXHAUST FAN AND BACKDRAFT DAMPER TO BE REMOVED AND RETAINED FOR REUSE. REMOVE EXISTING ROOF CURB AND PROVIDE NEW 20" INSULATED ROOF CURB, AND REINSTALL EXHAUST FAN AND BACKDRAFT DAMPER ON NEW 20" ROOF CURB UPON COMPLETION OF ROOF WORK. IF EXISTING BACKDRAFT DAMPER IS MOTORIZED, RECONNECT MOTORIZED DAMPER TO ELECTRICAL POWER.

RH-EX: ROOF MOUNTED ROOF HOOD
MANUFACTURER & MODEL: VARIES
ELECTRICAL: VARIES
PERFORMANCE: VARIES
FEATURES: VARIES
NOTES: EXISTING ROOF HOOD AND BACKDRAFT DAMPER TO BE REMOVED AND RETAINED FOR REUSE. REMOVE EXISTING ROOF CURB AND PROVIDE NEW 20" INSULATED ROOF CURB, AND REINSTALL ROOF HOOD AND BACKDRAFT DAMPER ON NEW 20" ROOF CURB UPON COMPLETION OF ROOF WORK. IF EXISTING BACKDRAFT DAMPER IS MOTORIZED, RECONNECT MOTORIZED DAMPER TO ELECTRICAL POWER.

SF-EX: ROOF MOUNTED SUPPLY FAN
MANUFACTURER & MODEL: VARIES
ELECTRICAL: VARIES
PERFORMANCE: VARIES
FEATURES: VARIES
NOTES: EXISTING ROOF HOOD AND BACKDRAFT DAMPER TO BE REMOVED AND RETAINED FOR REUSE. REMOVE EXISTING ROOF CURB AND PROVIDE NEW 20" INSULATED ROOF CURB, AND REINSTALL ROOF HOOD AND BACKDRAFT DAMPER ON NEW 20" ROOF CURB UPON COMPLETION OF ROOF WORK. IF EXISTING BACKDRAFT DAMPER IS MOTORIZED, RECONNECT MOTORIZED DAMPER TO ELECTRICAL POWER.

RTU-1: EXISTING PACKAGED 12.5 TON ROOFTOP UNIT
MANUFACTURER & MODEL: CARRIER, 48TCED14A2A5-0A0G0
ELECTRICAL: 208V/3PH/MCA = 65 AMOCP = 80 A
FAN: 5000 CFM, 0.6" ESP
COOLING: 147,950 BTUH TOTAL, 103,340 BTUH SENSIBLE, 44,610 BTUH LATENT, EAT (DB/WB) = 80°F/67°F
HEATING: 2-STAGE NATURAL GAS, LOW OUTPUT = 147,000 BTUH, HIGH OUTPUT = 184,000 BTUH, EAT = 70°F
WEIGHT = 1220 LBS
EFFICIENCY: 12.2 IEER / 10.8 EER
OPTIONS/ACCESSORIES: EXISTING UNIT
INSTALLATION NOTES: REMOVE AND RETAIN EXISTING RTU. PROVIDE NEW 20" INSULATED ROOF CURB AND REINSTALL EXISTING UNIT ON NEW 20" ROOF CURB. TRAP CONDENSATE AND ROUTE TO ROOF DRAIN OR SCUPPER. RECONNECT TO ELECTRICAL POWER, NATURAL GAS PIPING, AND CONTROL WIRING. PROVIDE NEW ELECTRICAL DISCONNECT.
PROVIDE NEW BACNET CARD FOR EXISTING RTU AND CONNECT TO NEW CONTROL SYSTEM. INTERLOCK RETURN AIR SMOKE DETECTOR WITH FIRE ALARM SYSTEM. RUN FAN AND OPEN ECONOMIZER DAMPER 100% UPON ACTIVATION OF SMOKE DETECTOR .

RTU-2: EXISTING PACKAGED 12.5 TON ROOFTOP UNIT
MANUFACTURER & MODEL: CARRIER, 48TCED14A2A5-0A0G0
ELECTRICAL: 208V/3PH/MCA = 65 AMOCP = 80 A
FAN: 5000 CFM, 0.6" ESP
COOLING: 147,950 BTUH TOTAL, 103,340 BTUH SENSIBLE, 44,610 BTUH LATENT, EAT (DB/WB) = 80°F/67°F
HEATING: 2-STAGE NATURAL GAS, LOW OUTPUT = 147,000 BTUH, HIGH OUTPUT = 184,000 BTUH, EAT = 70°F
WEIGHT = 1220 LBS
EFFICIENCY: 12.2 IEER / 10.8 EER
OPTIONS/ACCESSORIES: EXISTING UNIT
INSTALLATION NOTES: REMOVE AND RETAIN EXISTING RTU. PROVIDE NEW 20" INSULATED ROOF CURB AND REINSTALL EXISTING UNIT ON NEW 20" ROOF CURB. TRAP CONDENSATE AND ROUTE TO ROOF DRAIN OR SCUPPER. RECONNECT TO ELECTRICAL POWER, NATURAL GAS PIPING, AND CONTROL WIRING. PROVIDE NEW ELECTRICAL DISCONNECT.
PROVIDE NEW BACNET CARD FOR EXISTING RTU AND CONNECT TO NEW CONTROL SYSTEM. INTERLOCK RETURN AIR SMOKE DETECTOR WITH FIRE ALARM SYSTEM. RUN FAN AND OPEN ECONOMIZER DAMPER 100% UPON ACTIVATION OF SMOKE DETECTOR .

RTU-3: PACKAGED 8.5 TON ROOFTOP UNIT
MANUFACTURER & MODEL: DAIKIN, DRG1023D180FABACN
ELECTRICAL: 208V/3PH/MCA = 44.6 AMOCP = 50 A
FAN: 3400 CFM, 0.5" ESP, OUTSIDE AIR = 850 CFM
COOLING: 102,816 BTUH TOTAL, 75,104 BTUH SENSIBLE, 27,712 BTUH LATENT, EAT (DB/WB) = 80°F/67°F
HEATING: 2-STAGE NATURAL GAS, INPUT=180,000 BTUH, LOW OUTPUT = 109,350 BTUH, HIGH OUTPUT = 145,800 BTUH, 40°F TEMP RISE.
WEIGHT = 1237 LBS
EFFICIENCY: 17 IEER / 12.2 EER
OPTIONS/ACCESSORIES: PROVIDE BACNET CARD AND CONTROLS PER CONTROL NOTE ON M0-01, HAIL GUARD, HOT GAS REHEAT, LOW AMBIENT CONTROL, RETURN AIR SMOKE DETECTOR, LOW-LEAK DOWNFLOW ECONOMIZER FOR DDC CONTROLS W/ ENTHALPY SENSOR, 20" INSULATED ROOF CURB
INSTALLATION NOTES: PROVIDE NEW 20" ROOF CURB, TRAP CONDENSATE AND ROUTE TO ROOF DRAIN OR SCUPPER, PROVIDE NEW ISOLATION VALVE, DIRT LEG, AND UNION AT GAS CONNECTION. PROVIDE NEW ELECTRICAL DISCONNECT. INTERLOCK RETURN AIR SMOKE DETECTOR WITH FIRE ALARM SYSTEM. RUN FAN AND OPEN ECONOMIZER DAMPER 100% UPON ACTIVATION OF SMOKE DETECTOR .

RTU-4: PACKAGED 8.5 TON ROOFTOP UNIT
MANUFACTURER & MODEL: DAIKIN, DRG1023D180FABACN
ELECTRICAL: 208V/3PH/MCA = 44.6 AMOCP = 50 A
FAN: 3400 CFM, 0.5" ESP, OUTSIDE AIR = 850 CFM
COOLING: 102,816 BTUH TOTAL, 75,104 BTUH SENSIBLE, 27,712 BTUH LATENT, EAT (DB/WB) = 80°F/67°F
HEATING: 2-STAGE NATURAL GAS, INPUT=180,000 BTUH, LOW OUTPUT = 109,350 BTUH, HIGH OUTPUT = 145,800 BTUH, 40°F TEMP RISE.
WEIGHT = 1237 LBS
EFFICIENCY: 17 IEER / 12.2 EER
OPTIONS/ACCESSORIES: PROVIDE BACNET CARD AND CONTROLS PER CONTROL NOTE ON M0-01, HAIL GUARD, HOT GAS REHEAT, LOW AMBIENT CONTROL, RETURN AIR SMOKE DETECTOR, LOW-LEAK DOWNFLOW ECONOMIZER FOR DDC CONTROLS W/ ENTHALPY SENSOR, 20" INSULATED ROOF CURB
INSTALLATION NOTES: PROVIDE NEW 20" ROOF CURB, TRAP CONDENSATE AND ROUTE TO ROOF DRAIN OR SCUPPER, PROVIDE NEW ISOLATION VALVE, DIRT LEG, AND UNION AT GAS CONNECTION. PROVIDE NEW ELECTRICAL DISCONNECT. INTERLOCK RETURN AIR SMOKE DETECTOR WITH FIRE ALARM SYSTEM. RUN FAN AND OPEN ECONOMIZER DAMPER 100% UPON ACTIVATION OF SMOKE DETECTOR .

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