

ROOFTOP UNIT SCHEDULE																		
ID	LOCATION	SERVES	SUPPLY FAN CFM	MOTOR DRIVE	MIN. OUTDOOR AIR CFM	ESP IN WG	MOTOR HP	VOLTS/PH	HEATING MEDIUM	HEATING INPUT CAPACITY MBH	HEATING OUTPUT CAPACITY MBH	COOLING MEDIUM	GROSS COOL CAPACITY MBH	SENS. COOL CAPACITY MBH	FILTER SIZE/NUMBER	FILTER EFFICIENCY	MANUFACTURER	REMARKS
RTU-1	ROOF	SALES FLOOR	8,400	DIRECT	2,270	1.5	10	208/3	GAS	405.0	328.1	R-410A	287.1	160.1	16X20X2 - 9	MERV 7	CES-MPU-025-RH-0003	(1)(2)(3)(4)(5)(6)(10)
RTU-2	ROOF	OFFICE AREA	600	DIRECT	120	0.5	1/4	208/1	GAS	65.0	52.0	R-410A	24.4	23.6	16X20X2 - 4	30%	LENNOX KGA02454D	(7)(8)(9)(11)

- PROVIDE 14" HIGH INSULATED ROOF CURB & BURGLAR BARS ON SUPPLY AND RETURN OPENINGS. RTU-1 ROOF CURB IS BY AES INDUSTRIES CONTACT GEORGE LASHER T(800)786-0402 X 216. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PURCHASING THE ROOF CURB DIRECTLY FROM AES INDUSTRIES.
- PROVIDE WITH THROUGH THE BASE SINGLE POINT ELECTRICAL CONNECTION. DISCONNECT, VFD 2-SPEED OPERATION, OA HOOD, PROOF AIRFLOW SWITCH, CLOGGED FILTER SWITCH, STAINLESS STEEL DRAIN PAN, 120V CONVENIENCE OUTLET, HEAT RECLAIM COIL, & DEHUMIDIFICATION CONTROL.
- UNIT SUPPLIED BY OWNER, RECEIVED, RIGGED AND INSTALLED BY MECHANICAL CONTRACTOR.
- ROOFTOP UNIT CONTROLLER IS FACTORY INSTALLED IN THE CES MULTI-PATH MPU. SPACE TEMPERATURE, SUPPLY AIR TEMPERATURE & SPACE HUMIDITY SENSORS ARE SUPPLIED BY CD CONTROLS AND SHIPPED TO REFRIGERATION CONTRACTOR FOR FIELD INSTALLATION.
- CES MULTI-PATH MPU IS MANUFACTURED BY AAON INC. (PRODUCTION 10 - 12 WEEKS) TO COORDINATE MPU SHIPPING OR FOR TECHNICAL SUPPORT CONTACT CES INC T(866)706-2647 X222. ALDIORDERS@CESINC.CA
- MECHANICAL CONTRACTOR TO REVIEW AND CONFIRM RTU SETPOINTS/STORE HOURS WITH ALDI DIRECTOR OF REAL ESTATE AND SIEMENS ENERGY MANAGEMENT USER GUIDE.
- PROVIDE WITH GLOBAL ECONOMIZER SECTION AND BAROMETRIC RELIEF DAMPERS.
- ALDI HAS A NATIONAL ACCOUNT WITH LENNOX INDUSTRIES. ALL LENNOX HVAC EQUIPMENT SHOULD BE QUOTED AND ORDERED THROUGH LENNOX NATIONAL ACCOUNTS. PLEASE CALL 800-367-6285 AND HIT "2" FOR SALES AND ASK FOR THE ALDI'S NATIONAL ACCOUNT SALES ADMINISTRATOR WHO WILL ASSIST YOU WITH QUOTES, AVAILABILITY AND ORDERS.
- PROVIDE 14" HIGH INSULATED ROOF CURB & BURGLAR BARS ON SUPPLY AND RETURN OPENINGS. FIELD VERIFY LOCATION.
- PROVIDE WITH CLOGGED CONDENSATE DRAIN SWITCH CONFORMING TO UL508 TO SHUT OFF HVAC UNIT.

DUCTLESS SPLIT FAN COIL UNIT SCHEDULE																
ID	LOCATION	SERVES	SUPPLY FAN CFM	MIN. OUTDOOR AIR CFM	ESP IN WG	FAN RPM	MOTOR MCA	MOTOR VOLTS/PH	TOTAL CAPACITY BTUH	COOLING COIL SENS. CAPACITY BTUH	MEDIUM	HEATING COIL CAPACITY BTUH	FILTER SIZE	FILTER EFFICIENCY	MANUFACTURER	REMARKS
FCU-1	OFFICE	OFFICE	300	30	-	-	-	208/1	9,900	-	R-410A	12,100	-	MERV 8	LG - LCN097HV4	(1)(2)(3)(4)

- PROVIDE WITH DRY CONTACT (INSTALLED BY REFRIGERATION CONTRACTOR) FOR INTEGRATION WITH SIEMENS BMS. CONTROLLED BY WALL MOUNTED TEMPERATURE SENSOR PROVIDED AND INSTALLED BY SIEMENS.
- COORDINATE REFRIGERANT LINE SIZING PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE WITH MATCHING AIR COOLED HEAT PUMP SCHEDULED.
- PROVIDE VENTILATION KIT PTK430, INLINE BOOSTER FAN (S&P USA TD100), CASSETTE GRILLE & CONDENSATE PUMP. INLINE BOOSTER FAN TO BE INSTALLED BY THE MECHANICAL CONTRACTOR; POWER WIRING BY THE ELECTRICIAN, CONTROL RELAY AND WIRING BY REFRIGERATION CONTRACTOR. INLINE BOOSTER FAN SHALL RUN WHEN THE FAN COIL UNIT OPERATES.

AIR COOLED HEAT PUMP SCHEDULE															
ID	LOCATION	SERVES	TOTAL COOLING CAPACITY MBH	OUTDOOR TEMP DB	TOTAL HEATING CAPACITY MBH	REFRIGERANT	COMPRESSORS NUMBER	SEER	REFRIGERANT CIRCUITS	CONDENSER FAN NUMBER	VOLTS/PH	MCA	MOCP	MANUFACTURER	REMARKS
HP-1	ROOF	FCU-1	9.9	95	12.1	R-410A	1	20.2	1	1	208/1	11.9	15.0	LG - LUU097HV	(1)

- PROVIDE WITH MATCHING DUCTED SPLIT FAN COIL.

VENTILATION RATE SCHEDULE									
NORTH CAROLINA MECHANICAL CODE 2012 TABLE 403.3 - SUPERMARKETS									
ROOM NAME	OCCUPANCY CLASSIFICATION	GROSS AREA (SQ FT)	NET OCCUPIABLE AREA (SQ FT)	TOTAL OCCUPANTS	CFM PER PERSON	CFM PER SQ. FT.	VENTILATION EFFECTIVENESS	REQ'D OA CFM	REQ'D EA CFM
SALES FLOOR/VEST.	SUPERMARKET	14,738	13,950	112	7.5	0.06	0.8	2,100	-
OFFICE	OFFICE SPACES	252	252	1	5	0.06	0.8	25	-
BREAK RM.	CONFERENCE RM.	419	419	8	5	0.06	0.8	80	-
MEN'S RM.	TOILET RM. - PUBLIC	107	107	-	-	50 ⁽¹⁾	-	-	100
WOMEN'S RM.	TOILET RM. - PUBLIC	107	107	-	-	50 ⁽¹⁾	-	-	100
HALL	CORRIDOR	151	151	-	-	0.06	-	10	-
BACK ROOM	WAREHOUSE	3,376	3,376	-	-	0.06	-	200	-
TOTAL OA REQUIRED								2,415	-
TOTAL OA PROVIDED								2,420	-

- RATE PER WATER CLOSET/URINAL WITH EXHAUST OPERATING CONTINUOUSLY DURING OCCUPIED HOURS.

EXHAUST FAN SCHEDULE												
ID	SERVES	LOCATION	TYPE	DRIVE	CFM	EXT. SP IN. WG.	FAN RPM	HP	VOLTAGE	MANUFACTURER	REMARKS	
EF-1	BREAK ROOM	ROOF	CENT.	DIRECT	180	0.25	1,319	1/30	120/1	GREENHECK G-070-D	(1)(2)(3)(5)	
EF-2	BACKROOM	ROOF	CENT.	DIRECT	1,920	0.375	1,725	1/2	120/1	GREENHECK G-123-A	(2)(3)(4)(5)	
EF-3	TOILET	ROOF	CENT.	DIRECT	300	0.4	1,519	1/20	120/1	GREENHECK G-080-D	(2)(3)(4)(5)	
DF-1	SALES FLOOR	ROOF JOIST	CENT.	DIRECT	1,061	-	1,550	31W	120/1	AIR-FLOW F-18	(6)(7)(8)	
DF-2	SALES FLOOR	ROOF JOIST	CENT.	DIRECT	1,061	-	1,550	31W	120/1	AIR-FLOW F-18	(6)(7)(8)	
DF-3	SALES FLOOR	ROOF JOIST	CENT.	DIRECT	1,061	-	1,550	31W	120/1	AIR-FLOW F-18	(6)(7)(8)	

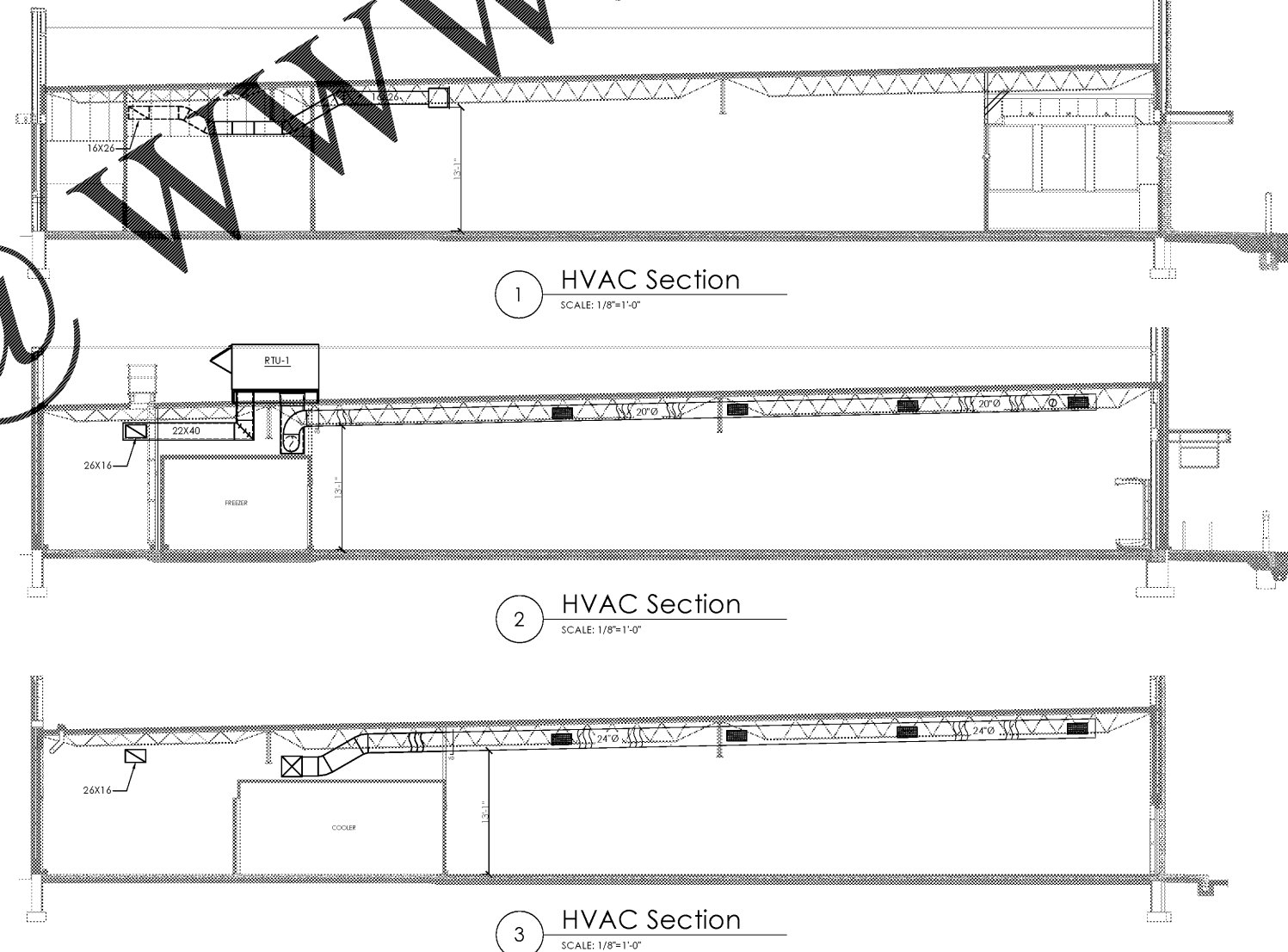
- CONTROLLED FROM WALL SWITCH PROVIDED AND WIRED BY DIVISION 16.
- PROVIDE SPEED CONTROLLER MOUNTED ON EXHAUST DUCT ABOVE CEILING.
- PROVIDE WITH 14" HIGH INSULATED ROOF CURB.
- CONTROLLED BY SIEMENS ENERGY MANAGEMENT SYSTEM.
- PROVIDE WITH BACK DRAFT DAMPER.
- FAN PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR. SUPPORT FAN FROM BUILDING STRUCTURE WITH BEAM CLAMP AND AIRCRAFT CABLE. INSTALL AT 1'-0" BELOW ROOF DECK AND PER MANUFACTURER'S RECOMMENDATIONS.
- FAN SHALL RUN CONTINUOUSLY. WIRING PROVIDED BY DIVISION 16. FACTORY SHALL PRESET FAN SPEED TO MAXIMUM.
- FAN TO BE FIELD PAINTED TO MATCH BUILDING STRUCTURE. PROTECT ALL MOVING PARTS PRIOR TO PAINTING.

DIFFUSER/REGISTER/GRILLE SCHEDULE										
ID	SERVES	TYPE	FACE SIZE	NECK SIZE	CONST. MATERIAL	CEILING MOUNTING	MAX. NC	MANUFACTURER	REMARKS	
D-1	SUPPLY	DIFFUSER	24X24	SEE PLANS	STEEL	T-BAR	20	TMSA	(1)	
R-1	RETURN	PERF.	24X24	12X12	STEEL	T-BAR	20	TITUS PAR	(1)	
R-2	SUPPLY	REGISTER	24X12	24X12	ALUMINUM	DUCT	20	TITUS S300FL	(2)	
R-3	RETURN	GRILLE	48X24	48X24	STEEL	GWB	20	TITUS 350ZRL	(2)	
R-4	TRANSFER	GRILLE	48X12	48X12	STEEL	GWB	20	TITUS 350 RL	(2)	
E-1	EXHAUST	PERF.	12X12	12X12	STEEL	T-BAR	20	TITUS PAR	(1)	

- COORDINATE CEILING TYPE WITH ARCHITECTURAL CEILING PLAN.
- PROVIDE PRIMED FINISH. REGISTERS/GRILLES TO BE PAINTED IN THE FIELD.

GAS FIRED UNIT HEATER SCHEDULE									
ID	LOCATION	TYPE	INHP MBH	OUTPUT CAP. MBH	CFM	HP	VOLTAGE	MANUFACTURER	REMARKS
UH-1	BACKROOM	POWER UNIT	75.0	60.0	950	1/8	120/1	LENNOX LF24-75A	(1)
UH-2	BACKROOM	POWER UNIT	75.0	60.0	950	1/8	120/1	LENNOX LF24-75A	(1)

- CONTROLLED BY THE SIEMENS ENERGY MANAGEMENT SYSTEM. THE TEMPERATURE SETPOINT SHALL BE 60°F.



1 HVAC Section
SCALE: 1/8"=1'-0"

2 HVAC Section
SCALE: 1/8"=1'-0"

3 HVAC Section
SCALE: 1/8"=1'-0"

SYMBOLS & ABBREVIATIONS	
	DUCT UP
	DUCT DOWN
	TEMPERATURE SENSOR
	HUMIDISTAT
	SMOKE DUCT DETECTOR
	DISCHARGE AIR TEMPERATURE SENSOR
	SINGLE BLADE VOLUME DAMPER
	OPPOSED BLADE VOLUME DAMPER
	DUCTWORK WITH 1" INTERNAL LINING
	12X12 SHEETMETAL ACCESS DOOR
	FIRE DAMPER WITH ACCESS DOOR
	ROUND CONCENTRIC TAKEOFF
	BELL MOUTH TAKEOFF
	BOD
	EF
	RTU
	UH
	VAV
	FCU
	HP

DUCT SMOKE DETECTOR SYSTEM SPECIFICATION
DUCT SMOKE DETECTOR SHALL BE SYSTEM SENSOR MODEL D4120 SERIES 4 WIRE PHOTOELECTRIC HOUSING SHALL BE UL LISTED. PROVIDE REMOTE TEST STATION WITH KEY, RTS151KEY. REMOTE TEST STATION SHALL BE INSTALLED BY MECHANICAL CONTRACTOR. SHALL PROVIDE AND INSTALL WALL MOUNTED SMOKE DETECTOR.

REFRIGERATION DRAWINGS
REFRIGERATION DRAWINGS ARE UNDER A SEPARATE CONTRACT AND WILL BE SUBMITTED AT A LATER DATE AS A REVISION TO APPROVED PLANS (RTAP). LICENSED MECHANICAL ENGINEER TO DESIGN REFRIGERATION PLANS TO CONFORM TO ALL APPLICABLE STATE AND LOCAL CODES.

Issued:	Date:
A Permit Set	12/05/17
B Client Review Set	05/03/18
C Bid Set	05/11/18
D	
Revisions:	Date:
1	
2	
3	
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Seal

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