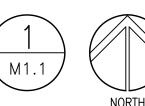
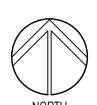


204

SCALE: 1/4 = 1'-0"

HVAC RESTROOM BUILDING SECOND FLOOR PLAN





KEY NOTES:

- 1 INSTALL 6" SCHEDULE 40 PVC WITH SWEEP ELBOWS FOR REFRIGERANT PIPE ROUTING INTO BUILDING. COORDINATE WITH UNDERGROUND WASTE PIPE IN THE SAME AREA. SEAL
- BOTH OPEN ENDS OF PIPE. 2 ROUTE CONDENSATE DRAIN PIPE IN FLOOR JOISTS AND OVER TO JANITOR SINK. VERTICAL PIPE DOWN TO SINK SHALL BE SUPPORTED WITH PIPE BRACKETS ON THE WALL.

MINIMUM OF TWO BOLTS PER SIDE.

GENERAL NOTES: 1. ALL GROUND MOUNTED EQUIPMENT SHALL BE BOLTED TO HOUSEKEEPING PADS. INCLUDE 1" VIBRATION ISOLATION PADS UNDER ALL UNITS. BOLT UNIT WITH A



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PHONE: (850)434-2661 CERTIFICATION OF AUTHORIZATION No: 5254 MECHANICAL ENGINEER: HOWARD M. YONGE, P.E. FLORIDA REG No. 32093
MECHANICAL ENGINEER: TIMOTHY J. MITCHELL, P.E. FLORIDA REG No. 66792

ELECTRICAL ENGINEER: ARUN T. VARGHESE, P.E. FLORIDA REG No. 76315

H.M. YONGE & ASSOCIATES, INC. CONSULTING ENGINEERS // EST. 1988 51 EAST GREGORY STREET PENSACOLA, FLORIDA 32502

H. M. YONGE AND ASSOC. JOB# 21-174

SHEET NUMBER M1.1

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DRAWING NUMBER

02/29/23

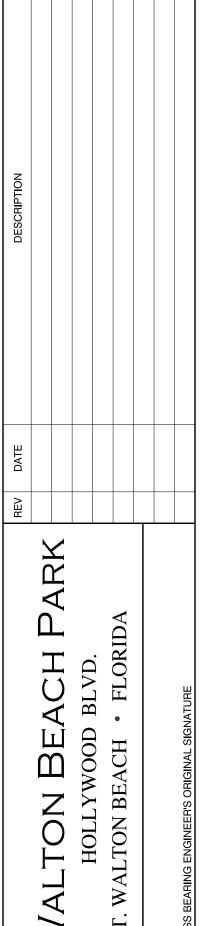
JOB:

DATE:

DESIGNED: DRAWN:

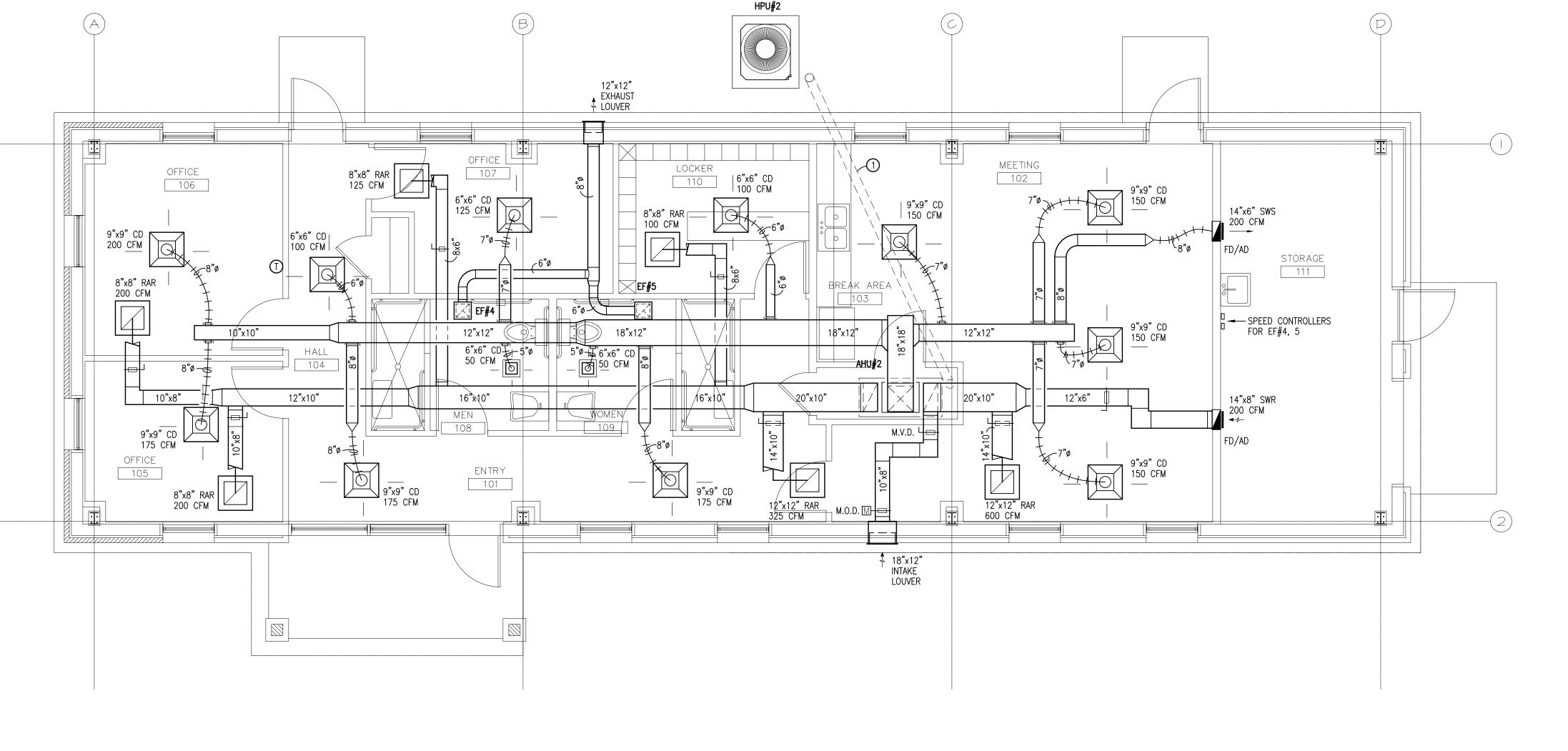
JENKINS ENGINEERING, INC.

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HVAC RECREATION BUILDING PLAN

KEY NOTES: INSTALL 6" SCHEDULE 40 PVC WITH SWEEP ELBOWS FOR REFRIGERANT PIPE ROUTING INTO BUILDING. COORDINATE WITH UNDERGROUND WASTE PIPE IN THE SAME AREA. SEAL BOTH OPEN ENDS OF PIPE.

GENERAL NOTES: 1. ALL GROUND MOUNTED EQUIPMENT SHALL BE BOLTED TO HOUSEKEEPING PADS. INCLUDE 1" VIBRATION ISOLATION PADS UNDER ALL UNITS. BOLT UNIT WITH A MINIMUM OF TWO BOLTS PER SIDE.

CONSIDERED SIGNED AND SEALED AND THE SIGNATURE

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51 EAST GREGORY STREET

PENSACOLA, FLORIDA 32502 PHONE: (850)434-2661

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JOB: DATE: 02/29/23 DESIGNED: DRAWN:

TJM BAR IS ONE INCH ON ORIGINAL IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY DRAWING NUMBER

SHEET NUMBER M1.2 CEILING EXHAUST FAN DETAIL NOT TO SCALE

UL RATED FIRE DAMPER W/165 F FUSIBLE LINK FOR VERTICAL MOUNT.

SPEED CONTROLLERS.

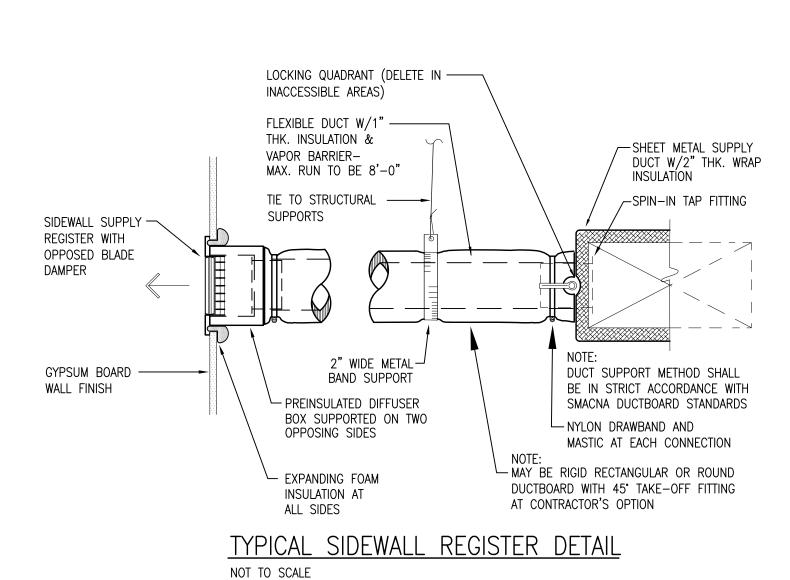
TYPICAL—STANDARD SLIP JOINT —

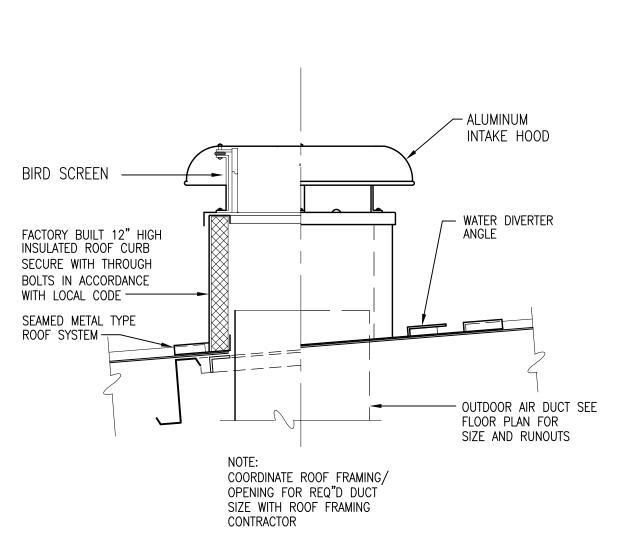
1 1/2"x1 1/2" 14 GA. RETAINING ANGLES ——— ALL SIDES

TYPICAL FIRE DAMPER DETAIL

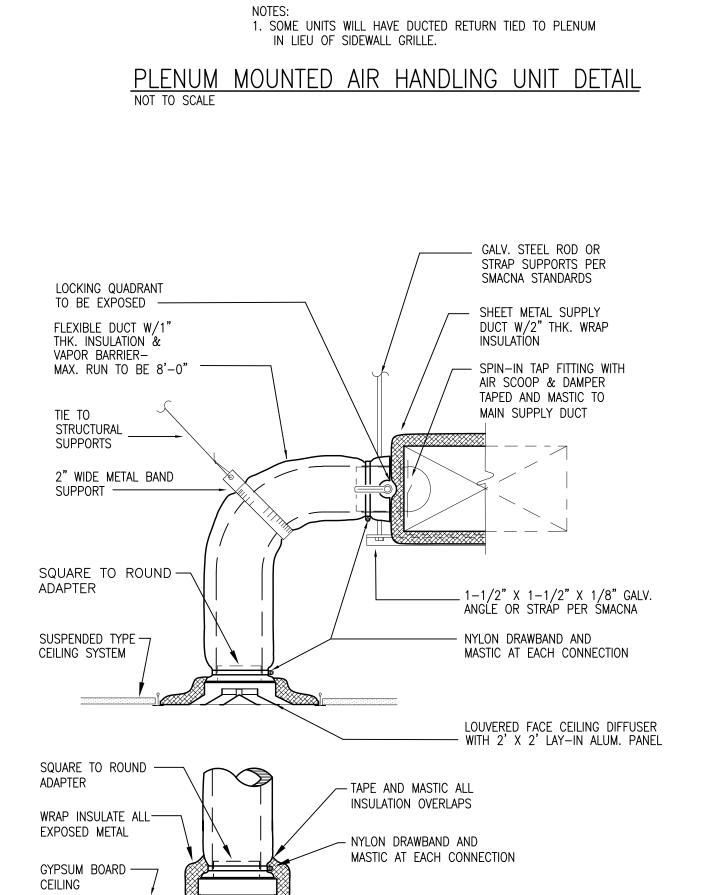
NOT TO SCALE

AIRFLOW -





TYPICAL ROOF MOUNTED INTAKE HOOD DETAIL NOT TO SCALE



AHU#

REFRIGERANT

CONSTRUCT RETURN

PLENUM WITH SHEET

METAL AND METAL

STUDS. INSULATE

PLENUM WITH DUCT

COORDINATE PLENUM CONSTRUCTION TO AVOID

CONDENSATE DRAINS —

CONDENSATE DRAIN

OR DRAIN RISER

(SEE PLUMBING) —

TAPE AND MASTIC -

TYPICAL CEILING DIFFUSER DETAIL

INSULATION TO GYPSUM BOARD

NO SCALE

PIPING -

LINER. ——

LOUVERED FACE CEILING DIFFUSER

-ROUTE AND SIZE DUCT PER PLANS

FLEXIBLE CONNECTOR

- AIR HANDLING UNIT

— AUXILIARY DRAIN LINE

FOR UNIT SHUTDOWN

- PRIMARY DRAIN LINE

← RETURN AIR FILTER GRILLE (SEE PLANS FOR SIZES)

WITH FLOAT SWITCH WIRED

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FAX 850.729.2460
FAX 850.729.2460

No. 66792

STATE OF

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H. M. YONGE AND ASSOC. JOB# 21-174

DRAWN: BAR IS ONE INCH ON ORIGINAL IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY DRAWING NUMBER

JOB:

DATE:

DESIGNED:

SHEET NUMBER M2.1

02/29/23

TJM

HOLLYWOOD I. WALTON BEACH •

1. OUTDOOR HEAT PUMP SHALL OPERATE AS STAGE 1 HEATING. ELECTRIC STRIP HEAT SHALL OPERATE AS STAGE 2 HEATING AND DEFROST CYCLE. DURING STAGE 2 HEATING, THE OUTDOOR HEAT

PUMP AND THE ELECTRIC STRIP HEAT SHALL OPERATE SIMULTANEOUSLY.

2. PROVIDE MOTORIZED DAMPER IN THE OUTDOOR AIR DUCT. DAMPER SHALL BE CLOSED WHEN THE COMPRESSOR IS OFF AND OPEN WHEN THE COMPRESSOR IS ON.

3. BASIS OF DESIGN - TRANE TEM6 AIR HANDLING UNIT WITH 4TWR4 HEAT PUMP UNIT.

	SPLIT SYSTEM DUCTLESS HEAT PUMP UNIT UNIT SCHEDULE																										
MARK	MARK DAHU/ AREA		AHU DATA								COOLING CAPACITY @ HEATING CAPACITY @ ARI STANDARD CONDITIONS			MIN. MIN.	MIN.	REFRIGERANT	CONDENSING UNIT ELECTRICAL DATA										
DHPU#		TONNAGE	TOTAL CFM	OA CFM	ESP	MOTOR	VOLTS	Hz	PHASE	MCA	HACR	EDB	EWB AMBIENT	TOTAL BTU/HR	SENSIBLE BTU/HR	EDB	AMBIENT	TOTAL BTU/HR	SEER	HSPF	CLASSIFICATION	VOLTS	Hz	PHASE	MCA	MOP	REMARKS
1	RR. BLDG. CONC. 101	1.0	300		0.2"		240	60	1			80°F	67°F 95°F	12,000	8,900	70°F	47°F	15,400	19.8	12.1	GROUP A1	240	60	1	9	16	NOTES 1, 2, 3, 4
2	RR. BLDG. VEST. 102	0.5	150		0.2"		240	60	1			80°F	67°F 95°F	6,000	5,500	70°F	47°F	8,700	33.1	12.5	GROUP A1	240	60	1	10	15	NOTES 1, 2, 3, 5

PROVIDE WITH WIRED THERMOSTAT OPTION.
 INDOOR UNIT IS POWERED THROUGH THE OUTDOOR UNIT.

3. PROVIDE WITH INTEGRAL CONDENSATE PUMP.

4. BASIS OF DESIGN — TRANE NTXUKS RECESSED CEILING MOUNTED UNIT WITH NTXSKS OUTDOOR UNIT.

5. BASIS OF DESIGN — TRANE NTXWPH WALL MOUNTED UNIT WITH NTXSPB OUTDOOR UNIT.

	FAN SCHEDULE													
FAN	CFM TOTAL	TSP IN WC	MAX RPM	TYPE DRIVE	TYPE FAN	CONTROL WITH	MOTOR HP/WATTS	MAX SONES		TRICAL		FAN SERVICE	REMARKS	
NO.	TOTAL	IN WC	KEM	DRIVE	FAIN	VVIII	HE/ WAITS	SUNES	VOLTS	Hz	PHASE	SERVICE		
EF#1	75	0.50	801	DIRECT	CEILING MOUNTED	LIGHT SWITCH	80 W	1.5	120	60	1	RR. BLDG. JAN 105	NOTES 1, 2, 3	
EF#2	450	0.50	1051	DIRECT	CEILING MOUNTED	LIGHT SWITCH	285 W	5.0	120	60	1	RR. BLG. WOMEN 106	NOTES 1, 2, 3	
EF#3	400	0.50	1022	DIRECT	CEILING MOUNTED	LIGHT SWITCH	285 W	5.0	120	60	1	RR. BLDG. MEN 107	NOTES 1, 2, 3	
EF#4	100	0.50	815	DIRECT	CEILING MOUNTED	WALL SWITCH	128 W	2.0	120	60	1	REC. BLDG. MEN 108	NOTES 1, 2, 3	
EF#5	100	0.50	815	DIRECT	CEILING MOUNTED	WALL SWITCH	128 W	2.0	120	60	1	REC. BLDG. WOMEN 108	NOTES 1, 2, 3	
FF#1	2,700			DIRECT	WALL MOUNTED	WALL SWITCH	2 @ 1/6 HP	•	120	60	1	RR. BLDG. CONC. 101	NOTE 4	

1. PROVIDE WITH BACKDRAFT DAMPER 2. PROVIDE WITH SPEED CONTROLLER

3. BASIS OF DESIGN - GREENHECK MODEL SP 4. BASIS OF DESIGN - UNHEATED MARS AIR LPV2 108" AIR CURTAIN WITH MOTOR CONTROL PANEL AND MANUAL ON/OFF SWITCH.

	ELECTRIC UNIT HEATER SCHEDULE										
MARK	AREA SERVED	CFM	HEATING CAPACITY			CAL DATA		REMARKS			
EUH#			INPUT KW	OUTPUT BTUH	VOLTS	PHASE	Hz	AMPS	TEMP II II I		
1	RR. BLDG. WOMEN 106	100	2.0	6,826	240	60	1	8.3	NOTES 1, 2		
2	RR. BLDG. WOMEN 106	100	2.0	6,826	240	60	1	8.3	NOTES 1, 2		
3	RR. BLDG. MEN 107	100	2.0	6,826	240	60	1	8.3	NOTES 1, 2		
4	RR. BLDG. MEN 107	100	2.0	6,826	240	60	1	8.3	NOTES 1, 2		

1. BASIS OF DESIGN - MARKEL 3300 SERIES 2. RECESSED, CEILING MOUNTED HEATER WITH REMOTE WALL MOUNTED THERMOSTAT

MECHANICAL CODES AND STANDARDS:

FLORIDA BUILDING CODE - BUILDING (2023 ED WITH ALL SUPPLEMENTS)

FLORIDA BUILDING CODE - MECHANICAL (2023 ED WITH ALL SUPPLEMENTS)

NFPA 90A-2021 - STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS.

NFPA 90B-2021 - STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND AIR-CONDITIONING SYSTEMS.

SMACNA HVAC DUCT CONSTRUCTION STANDARDS — METAL AND FLEXIBLE (3RD ED. — 2005)

MECHANICAL LEGEND:

	LLOLIND:		
T	THERMOSTAT/SENSOR	CFM	CUBIC FEET PER MINUTE
S	DUCT MOUNTED SMOKE DETECTOR	DAHU	DUCTLESS AIR HANDLING UNIT
	90° ELBOW WITH TURNING VANES	DHPU	HEAT PUMP FOR DAHU
+++++	SPIN-IN TAP FITTING W/SCOOP & DAMPER	EF	EXHAUST FAN
<u> </u>	METAL DUCT TO FLEX DUCT TRANSITION	ER	EXHAUST REGISTER WITH OBD
	SUPPLY DUCT IN SECTION	FD/AD	FIRE DAMPER WITH ACCESS DOOR
	RETURN AIR DUCT IN SECTION	HPU	HEAT PUMP UNIT
_ _ _ [_	CEILING DIFFUSER	MOD	MOTOR OPERATED DAMPER
	RETURN AIR REGISTER	MVD	MANUAL VOLUME DAMPER
	EXHAUST REGISTER	OA	OUTDOOR AIR
—D—	CONDENSATE DRAIN PIPE	OBD	OPPOSED BLADE DAMPER
	MANUAL VOLUME DAMPER	RA	RETURN AIR
M - E- 3-	MOTOR OPERATED DAMPER	RAR	RETURN REGISTER WITH OBD
	FIRE DAMPER WITH ACCESS DOOR	SA	SUPPLY AIR
<u> </u>	UNDERCUT DOOR 1/2"	SWE	SIDEWALL EXHAUST REGISTER
A		SWR	SIDEWALL RETURN REGISTER
AHU	AIR HANDLING UNIT	SWS	SIDEWALL SUPPLY REGISTER.
CD	CEILING DIFFUSER WITH OBD	TG	TRANSFER GRILLE

MECHANICAL SPECIFICATIONS:

DUCTWORK SHALL BE G90 GALVANIZED STEEL CONSTRUCTED IN ACCORDANCE WITH SMACNA STANDARDS. ALL JOINTS SHALL BE SEALED WITH LOW VOC MASTIC.

LOW PRESSURE DUCT SHALL BE SMACNA STATIC PRESSURE CLASS 1/2" W.C. WITH SEAL CLASS C.

SUPPLY, RETURN, AND EXHAUST DUCT SHALL BE INSULATED WITH 2" THICK, 1 LB DENSITY DUCT WRAP (INSTALLED R=6) WITH FOIL FACE. INSULATION SHALL HAVE A MAXIMUM 25/50 FLAME/SMOKE RATING.

FLEXIBLE DUCTWORK SHALL NOT EXCEED 8' IN LENGTH, BE EQUAL TO 1"-1LB. DENSITY INSULATION WITH METALIZED FILM VAPOR BARRIER, AND CONFORM TO UL-181 AS A CLASS 1 DUCT FOR INSTALLATION IN A RETURN AIR TYPE

SPLIT SYSTEM AIR CONDITIONING UNITS SHALL BE EQUAL TO THE BASIS OF DESIGN.

REFRIGERANT PIPING SHALL BE ACR DRIED AND CAPPED COPPER TUBING. INSULATE SUCTION LINE WITH 3/4" WALL FLEXIBLE ELASTOMERIC PIPE COVERING. INSULATION EXPOSED TO WEATHER SHALL BE PAINTED WITH TWO (2) COATS OF ACRYLIC PAINT.

CONDENSATE DRAIN PIPE SHALL BE SCHEDULE 40 DWV-PVC WITH GLUED JOINTS. INSULATE PIPE WITH 1" FLEXIBLE CLOSED CELL PIPE INSULATION (ARMAFLEX). MAXIMUM HANGER SPACING IS 6 FEET.

EXHAUST FANS SHALL BE EQUAL TO THE BASIS OF DESIGN.

CEILING MOUNTED SUPPLY AIR DIFFUSERS SHALL BE EQUAL TO TITUS TDC-AA WITH OPPOSED BLADE DAMPERS.

CEILING MOUNTED RETURN REGISTERS AND TRANSFER GRILLES SHALL BE EQUAL TO TITUS 50F WITH OPPOSED BLADE DAMPERS. THE OPPOSED BLADE DAMPER MAY BE OMITTED FOR TRANSFER GRILLES ONLY.

SIDEWALL SUPPLY REGISTERS SHALL BE EQUAL TO TITUS MODEL 272FL WITH OPPOSED BLADE DAMPERS.

SIDEWALL RETURN REGISTERS SHALL BE EQUAL TO TITUS MODEL 23RL WITH OPPOSED BLADE DAMPERS.

FIRE DAMPERS SHALL BE UL 555 LISTED AND EQUAL TO RUSKIN IBD2.

GRAVITY INTAKE HOODS SHALL BE EQUAL TO GREENHECK MODEL FGI WITH BIRDSCREEN, ROOF CURB AND NOA NUMBER.

EXTERIOR LOUVERS SHALL BE AMCA 540 AND 550 LISTED RUSKIN EME6325D OR EQUAL WITH VALID FLORIDA NOA NUMBER. LOUVERS SHALL BE MANUFACTURED BY GREENHECK, RUSKIN OR POTTORFF. ARCHITECT TO SELECT COLOR.

TEST AND BALANCE OF THE AIR DISTRIBUTION SHALL BE PERFORMED BY AN AGENCY CERTIFIED BY THE AABC OR THE NEBB. A TEST AND BALANCE REPORT SHALL BE ISSUED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL.

7-DAY PROGRAMMABLE THERMOSTATS SHALL BE INSTALLED AT 48" A.F.F. THERMOSTATS SHALL HAVE AUXILIARY OUTPUT FOR CONTROL OF A MOTOR OPERATED DAMPER.

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02/29/23

DATE

DESIGNED: DRAWN:

LYWOOD BEACH

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