

HVAC GENERAL NOTES	
<div>1. HVAC DRAWINGS ARE DIAGRAMMATICAL IN NATURE AND REPRESENT EXISTING CONDITIONS BASED ON DRAWINGS AND SITE OBSERVATIONS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL ACTUAL CONDITIONS INCLUDING, DUCTWORK AND PIPING LOCATIONS AND SIZES.</div> <div>2. DUE TO DRAWINGS BEING DIAGRAMMATICAL IN NATURE RISERS AND DROPS ARE NOT SHOWN. CONTRACTOR SHALL INCLUDE THESE IN THE BID – WHERE POSSIBLE ALL RISERS AND DROPS SHALL BE CONSTRUCTED USING 45 DEGREE OR LONG RADIUS ELBOWS.</div> <div>3. PROVIDE AND INSTALL NECESSARY DUCTWORK TRANSITIONS AND PIPING INCREASERS/REDUCERS AS REQUIRED FOR EQUIPMENT CONNECTIONS. CONSULT MANUFACTURER'S DATA FOR ACTUAL DUCTWORK AND PIPING CONNECTIONS SIZES, INCLUDING, BUT NOT LIMITED TO THOSE SHOWN.</div> <div>4. IT SHALL BE THE RESPONSIBILITY OF THE AIR CONDITIONING CONTRACTOR FOR THE ADVANCED ORDERING OF LONG LEAD ITEMS SO THAT DELIVERY WILL NOT INTERFERE WITH THE PRODUCTION OF OTHER TRADES RESULTING IN ANY DOWN OR LAG TIME.</div> <div>5. IT SHALL BE THE RESPONSIBILITY OF THE AIR CONDITIONING CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS, AND SUPERVISION NECESSARY TO ACCOMPLISH THE WORK SHOWN AND/OR NOTED ON THE DRAWINGS. THE DRAWINGS ARE DIAGRAMMATIC; DO NOT SCALE FOR EXACT LOCATIONS. THE AIR CONDITIONING CONTRACTOR SHALL INSTALL ALL NECESSARY OFFSETS, BENDS, AND TRANSITIONS AS REQUIRED TO PROVIDE A COMPLETE AND FULLY OPERATIVE SYSTEM. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR SHALL NOTIFY ENGINEER IF DUCT SIZE CHANGES ARE REQUIRED BECAUSE OF EXISTING CONDITIONS.</div> <div>6. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS, TESTS, AND ALL REQUIRED INSURANCE FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.</div> <div>7. AFTER BID SELECTION AND PRIOR TO COMMENCEMENT OF WORK, THE AIR CONDITIONING CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL DUCT WORK, EXHAUST FANS, AIR DEVICES, AND EQUIPMENT AS STATED ON SCHEDULES AND/OR NOTES. AHRI CERTIFICATES FOR ALL EQUIPMENT SHALL BE INCLUDED IN THE SUBMITTAL PACKAGE. IF THE CONTRACTOR PROPOSES TO USE ANY ARTICLE, DEVICE, PRODUCT, OR MATERIAL WHICH IS NOT AS SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVE TO THE ENGINEER THAT THE PROPOSED SUBSTITUTION IS EQUAL AND WILL FIT ALLOCATED SPACE.</div> <div>8. LOCATION OF AIR CONDITIONING DUCTS AND AIR DEVICES MAY CHANGE. VERIFY EXACT LOCATION WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION. DRAWINGS ARE DIAGRAMMATIC, DO NOT SCALE FOR THE EXACT LOCATION OF DUCTS, DIFFUSERS, GRILLES, REGISTERS, PIPING, EQUIPMENT, ETC. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF AIR DEVICES.</div> <div>9. PROVIDE MANUAL VOLUME DAMPERS AT ALL LOW PRESSURE BRANCH DUCTS TO INDIVIDUAL DIFFUSERS AND GRILLES AND TO ALL LOW PRESSURE BRANCH DUCTS TO REHEAT COILS. PROVIDE DAMPERS AS CLOSE AS POSSIBLE TO BRANCH CONNECTION TO MAIN. SEE DIFFUSER AND GRILLE SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.</div> <div>10. NO PIPING, DUCTWORK, OR CONDUIT SHALL BE INSTALLED UNTIL IT IS COORDINATED WITH ALL OTHER TRADES AFFECTED. PROVIDE ALL OFFSETS REQUIRED TO AVOID INTERFERENCE WITH OTHER TRADES; EXISTING CONDITIONS AND WITH THE STRUCTURE, INCLUDING, BUT NOT LIMITED TO, THOSE SHOWN.</div> <div>11. DO NOT BLOCK TUBE PULL OR SERVICE SPACE ON EQUIPMENT WITH PIPING, DUCTWORK, ETC.. (FLANGED OR REMOVABLE SECTIONS MAY BE USED IN SOME INSTANCES WHERE TIGHT CLEARANCES EXISTS).</div> <div>12. IF NO SIZE IS SHOWN FOR DUCT SERVING DIFFUSER OR GRILLES, USE SIZE SHOWN ON DIFFUSER AND GRILLE SCHEDULE.</div> <div>13. DUCTWORK ROUTED PARALLEL TO A WALL, RATED OR CORRIDOR SHALL BE INSTALLED WITH MINIMUM 6" CLEARANCE TO ALLOW FOR INSPECTION OF WALL PENETRATIONS. CONTRACTOR SHALL PROVIDE 12" CLEARANCE WHERE POSSIBLE, COORDINATE.</div> <div>14. REFER TO DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INSTALLATION REQUIREMENTS.</div> <div>15. PROVIDE TEMPORARY FILTERS ON ALL RETURN AIR GRILLES AND TRANSFER OPENINGS IN THE WORK AREA.</div> <div>16. INSTALL AHU CONTROL PANELS TO PROVIDE FOR 3'–0" MIN. CLEARANCE IN FRONT OF PANEL.</div> <div>17. UNLESS OTHERWISE NOTED ON PLANS, LOW RETURN AIR GRILLES AND LOW EXHAUST GRILLES SHALL BE 6" TO 8" A.F.F. TO BOTTOM OF GRILLE.</div> <div>18. ALL DIFFUSERS IN SAME SPACE SHALL HAVE THE SAME FULL FACE SIZE USING LARGEST SIZE REQUIRED FROM DIFFUSER AND GRILLE SCHEDULE.</div> <div>19. PROVIDE CLEAR ACCESS TO FIRE DAMPERS, SMOKE DAMPERS, AND VALVES.</div> <div>20. ALL WORK SHALL BE PERFORMED BY A LICENSED AIR CONDITIONING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES AND ORDINANCES.</div> <div>21. THE AIR CONDITIONING CONTRACTOR SHALL BE RESPONSIBLE TO</div> <div>REPAIR TO ORIGINAL CONDITION ANY AND ALL DAMAGES TO BUILDING SURFACES, EQUIPMENT, AND FURNISHINGS CAUSED BY THE CONTRACTOR DURING THE PERFORMANCE OF WORK.</div> <div>22. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.</div> <div>23. THE PLUMBING CONTRACTOR SHALL RUN ALL CONDENSATE DRAINS PER PLUMBING SPECIFICATIONS. (SEE PLUMBING SHEETS)</div> <div>24. COMBUSTIBLE PIPING IS NOT PERMITTED IN RETURN AIR PLENUMS OR CEILING SPACES USED FOR RETURN AIR.</div> <div>25. THE AIR CONDITIONING CONTRACTOR SHALL USE RADIUS TURNS WITH A 1.5 CENTERLINE TO WIDTH RATIO (1.5 R/W), VANED ELBOWS, SPLITTER DAMPERS WHERE INDICATED, VOLUME CONTROLS IN ALL BRANCH LINES AND SUPPLY AND RETURN AIR DEVICES.</div> <div>26. THE AIR CONDITIONING CONTRACTOR SHALL SEAL ALL DUCTS IN AN APPROVED MANNER TO INSURE AGAINST LEAKAGE.</div> <div>27. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID ANY CONFLICTS IN LOCATIONS FOR DUCTS, DIFFUSERS, GRILLES, REGISTERS, PIPING, EQUIPMENT, ETC., IN ORDER TO NOT INTERFERE WITH THE PROGRESS OF CONSTRUCTION.</div> <div>28. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE FLEXIBLE DUCT CONNECTIONS TO ALL FANS, A/C UNITS, OR MECHANICAL EQUIPMENT, EXCEPT FOR EXHAUST HOODS.</div> <div>29. UNLESS NOTED AS EXISTING TO BE REUSED (E) OR RELOCATED (RE), ALL EQUIPMENT, PIPING, DUCTS, REGISTERS, ETC., SHALL BE NEW.</div> <div>30. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR UNDERWRITERS LABEL WHERE APPLICABLE.</div> <div>31. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE ALL CONTRACTORS, STARTERS, RELAYS, AND THERMOSTATS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SWITCHES, DISCONNECTS, POWER WIRING AND CONTROL WIRING, UNLESS NOTED OTHERWISE.</div> <div>32. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE 1" THICK FARR 30/30 (THROW-AWAY TYPE) FILTERS WITH EACH A/C UNIT.</div> <div>33. ALL PENETRATIONS OF FIRE–RATED WALLS, FLOORS OR CEILINGS SHALL BE FIREPROOFED BY A LICENSED MECHANICAL TRADE AS SPECIFIED ON THE DRAWINGS OR AS REQUIRED BY THE LOCAL OR STATE CODES.</div> <div>34. AIR HANDLING DEVICES IN EXCESS OF 2000 CFM WILL HAVE A DUCT SMOKE DETECTOR TO STOP THE FAN AND ACTIVATE A HORN AND STROBE LIGHT. ALL EQUIPMENT SHALL BE INTERLOCKED AS REQUIRED BY LOCAL CODES OR FIRE SAFETY OFFICIALS.</div> <div>35. ALL WORK SHALL COMPLY WITH BASE BUILDING LIFE SAFETY/SMOKE CONTROL SYSTEM REQUIREMENTS. PROVIDE ALL NECESSARY WIRING, CONTACTORS, RELAYS, ETC., AS REQUIRED FOR INTERFACE WITH BASE BUILDING SYSTEM.</div> <div>36. THE AIR CONDITIONING CONTRACTOR SHALL KEEP ALL AREAS IN WHICH WORK IS BEING PERFORMED, FREE FROM DEBRIS AT ALL TIMES AND SAID AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH WORKING DAY.</div> <div>37. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE A COMPLETE SET OF AS BUILT DRAWINGS TO THE ENGINEER UPON COMPLETION OF INSTALLATION. IF FIELD CHANGES ARE MADE WHICH DEViate FROM ENGINEERING DRAWINGS TO THE EXTENT THAT THE BUILDING DEPARTMENT REQUIRES THESE CHANGES BE INCORPORATED PRIOR TO INSPECTION, THE CONTRACTOR SHALL PROVIDE SKETCHES TO THE ENGINEER FOR INCORPORATION INTO THE BUILDING PLANS. ENGINEERING EXPENSES THAT ARE INCURRED DUE TO REVISIONS OR SUBSTITUTIONS REQUESTED BY THE CONTRACTOR SHALL BE PAID FOR BY THAT CONTRACTOR.</div> <div>38. AIR CONDITIONING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP TO BE FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN (1) YEAR FROM DATE OF ACCEPTANCE, AND ALL GUARANTEES AND WARRANTIES SHALL BE DELIVERED TO THE OWNER. COMPRESSORS SHALL HAVE EXTENDED FIVE YEAR WARRANTIES.</div> <div>39. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL EQUIPMENT WITH THE OWNER'S REPRESENTATIVE AND THE ACTUAL EQUIPMENT BEING FURNISHED.</div> <div>40. NOT USED</div> <div>41. ALL MATERIALS WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NO MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR U.L.723.</div> <div>42. CONTRACTOR MUST SUBMIT A PROPOSED SOLUTION WITH ALL RFIS.</div> <div>43. CONTRACTOR SHALL SUBMIT COORDINATED LAYOUT DRAWINGS VERIFYING CLEARANCES AND NO INTERFERENCES WITH SYSTEMS. THIS INCLUDES SYSTEMS SEALED ABOVE CEILING LAYOUTS.</div> <div>44. IF ANY CONFLICTS OR DISCREPANCIES APPEAR IN THESE DOCUMENTS, THE MORE STRINGENT OF THE REQUIREMENTS ARE TO BE TAKEN.</div>	

MECHANICAL SYMBOLS (GENERAL)	
	X = SECTION (LETTER) OR DETAIL (NUMBER) #.# = WHERE DETAIL OR SECTION IS SHOWN
	ITEMS SHOWN DASHED ARE EXISTING (UNLESS NOTED OTHERWISE)
	HATCHING INDICATES ITEMS TO BE REMOVED (UNLESS NOTED OTHERWISE)
	KEYED NOTES ON DRAWINGS & SCHEDULES
	REVISIONS
	ROOM NUMBERS
	AIR TERMINAL TAGS X = AIR DEVICE TYPE XXX = AIR QUANTITY (CFM)
	EQUIPMENT TAGS (XX = MARKS BELOW) AHU = AIR HANDLING UNIT AS = AIR SEPARATOR BO = BOILER CC = COOLING COIL CH = CHILLER CT = COOLING TOWER CU = CONDENSING UNIT EDH = ELEC. DUCT HEATER EF = EXHAUST FAN HE = HEAT EXCHANGER P = PUMP EDH = ELEC. DUCT HEATER LVR = WALL LOUVER EF = EXHAUST FAN RTU = ROOF TOP UNIT RF = RETURN FAN ET = EXPANSION TANK PCU = PRE-COOLING UNIT SF = SUPPLY FAN FH = FUMEHOOD CWP = CONDENSER WATER PUMP CHWP= CHILLED WATER PUMP SL = STATIONARY LOUVER UH = UNIT HEATER CR = CONDENSATE RECEIVER PRV = PRESSURE REDUCING VALVE RHC = REHEAT COIL HWP = HOT WATER PUMP FS = FLOW STATION CS = CHEMICAL SHOT FEEDER ACCU= AIR COOLED COND. UNIT ACCH= AIR COOLED CHILLER SCHW= SECONDARY CHILLED WATER PCHW= PRIMARY CHILLED WATER VAV = VAV TERMINAL UNIT
	CONNECTION OF NEW TO EXISTING
	EXISTING TO REMAIN. NO MECHANICAL WORK IN THIS AREA.

MECHANICAL SYMBOLS (HVAC)	
	TYP. SUPPLY AIR CEILING DIFFUSER. SHADING INDICATES BLOCKED QUADRANT(S) FOR 1, 2 OR 3-WAY BLOW.
	RETURN AIR GRILLE (SEE AIR DEVICE SCHEDULE)
	EXHAUST FAN
	SIDEWALL REGISTER/GRILLE (SEE AIR DEVICE SCHEDULE)
	FLEXIBLE DUCT (10 FT. MAX. LENGTH)
	RIGID ROUND DUCTWORK TO DIFFUSER
	HUMIDITY SENSOR
	WALL MOUNTED TEMPERATURE SENSOR
	WALL MOUNTED COMB. TEMPERATURE & HUMIDITY SENSOR
	WALL MOUNTED CARBON DIOXIDE SENSOR
	DUCT MOUNTED TEMPERATURE SENSOR
	DUCT MOUNTED SMOKE DETECTOR
	FIRE DAMPER
	45° SIDE TAKEOFF FITTING TO DIFFUSER, WITH MANUAL VOLUME DAMPER. OUTLET DIAMETER OF FITTING IS EQUAL TO DIFFUSER NECK.
	DUCT SIZE DESIGNATION. SIDE SHOWN IS FIRST DIMENSION. SIZE SHOWN IS INTERNAL CLEAR OPENING. SHEET METAL SIZE MUST BE INCREASED FOR INTERNAL INSULATION WHERE SPECIFIED. (Ø= ROUND DUCT, ○= FLAT OVAL DUCT)
	TURNING VANES (NUMBER OF VANES SHALL BE BASED ON ACTUAL DUCT SIZE, NOT ON SCHEMATIC SYMBOL ON DRAWING)
	RETURN, EXHAUST OR OUTSIDE AIR DUCT
	DISCHARGE OR SUPPLY DUCT
	FLEXIBLE DUCT CONNECTION
	VOLUME DAMPER (MANUAL)
	MOTORIZED CONTROL DAMPER
	ANGLED DROP IN DUCT
	ANGLED RISE IN DUCT
	CONDENSATE PIPING
	SPACE RELATIVE PRESSURE RELATIONSHIP. LACK OF SYMBOL INDICATES NEUTRAL PRESSURE.
* NOTE: NOT ALL SYMBOLS USED	

MECHANICAL ABBREVIATIONS	
ACC	AIR COOLED CONDENSER
AHU	AIR HANDLER UNIT
A/C	AIR CONDITIONING
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
ATM.	ATMOSPHERE
BHP	BRAKE HORSE POWER
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
DB	DRY BULB
dB	DECIBELS
DDC	DIRECT DIGITAL CONTROL
DN.	DOWN
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB TEMPERATURE
E/A	EXHAUST AIR
ESP	EXTERNAL STATIC PRESSURE
EWB	ENTERING WET BULB TEMPERATURE
EWI	ENTERING WATER TEMPERATURE
FLA	FULL LOAD AMPS
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HP	HORSE POWER
HZ	HERTZ
IN. W.G.	INCHES OF WATER GAUGE
LAT	LEAVING AIR TEMPERATURE
LDB	LEAVING DRY BULB TEMPERATURE
LWB	LEAVING WET BULB TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MD	MOTORIZED DAMPER
NC	NORMALLY CLOSED
NK.	NECK
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OBD	OPPOSED BLADE DAMPER
O/A	OUTDOOR AIR
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
PH.	PHASE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH (GAUGE PRESSURE)
R/A	RETURN AIR
RH	RELIEF HOOD
RTU	ROOF TOP UNIT
SF	SUPPLY FAN
S/A	SUPPLY AIR
SP	STATIC PRESSURE
TDE	TOP DUCT ELEVATION
TEMP.	TEMPERATURE
TSP	TOTAL STATIC PRESSURE
TYP.	TYPICAL
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE

MECHANICAL SHEET INDEX	
SHEET#	DESCRIPTION
M0.1	MECHANICAL NOTES, LEGEND, AND SHEET INDEX
M1.1	MECHANICAL PLAN
M2.1	MECHANICAL DETAILS & SCHEDULES

COORDINATION NOTE:

EACH CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF HIS EQUIPMENT AND WORK WITH THE GENERAL CONTRACTOR AND WORK OF ALL OTHER CONTRACTORS, SUB CONTRACTORS AND TRADES. ANY AND ALL EQUIPMENT, FIXTURES AND/OR MATERIAL REMOVED AND/OR INSTALLED WITHOUT THE PROPER COORDINATION SHALL BE REMOVED AND/OR REINSTALLED AT NO ADDITIONAL EXPENSE TO THE OWNER.

AS BUILT NOTE:

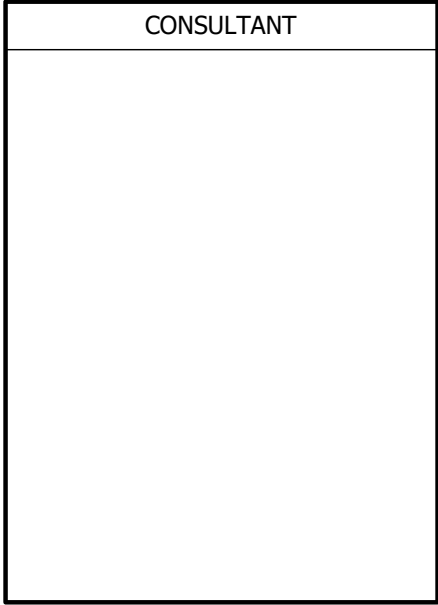
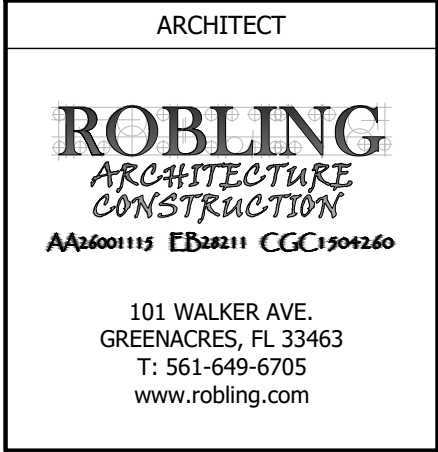
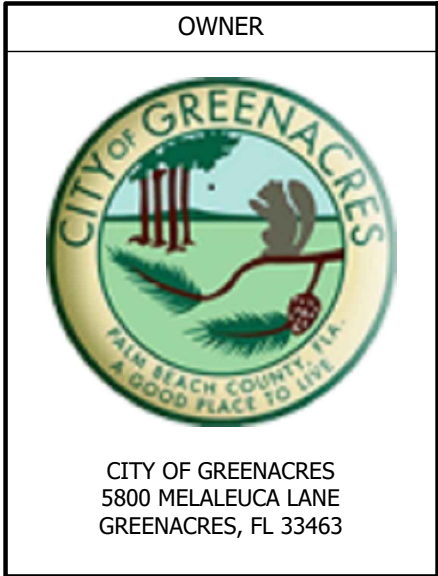
AS-BUILT CONDITIONS MAY NOT COINCIDE WITH THOSE INDICATED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION, BUT NOT LIMITED TO, ALL THE ITEMS LISTED FOR DEMOLITION IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS AND SHALL BE RESPONSIBLE FOR DEMOLITION OF EXISTING WORK AS REQUIRED TO COMPLETE THE NEW WORK.

BIDDING NOTE:

CONTRACTOR SHALL REVIEW PLANS AND NOTES AND PROVIDE REQUEST FOR INFORMATION (RFI) TO ARCHITECT/ENGINEER OF RECORD PRIOR TO FINALIZING BID.

EQUIPMENT COORDINATION NOTE:

COORDINATION OF AIR CONDITIONING EQUIPMENT SHALL BE MADE WITH FINAL ARCHITECT AND STRUCTURAL DRAWINGS PRIOR TO EQUIPMENT INSTALLATION. IF CONFLICTS IN LOCATION OF THE AIR CONDITIONING EQUIPMENT WITH ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS ARISE, CONTRACTOR SHALL NOTIFY ARCHITECT IN THE FORM OF AN RFI PRIOR TO INSTALLATION.



PROJECT TITLE	
FIRE RESCUE STATION 95 LOUNGE RENOVATION	
SUBMITTAL HISTORY	
A	06/11/25 CONSTRUCTION DOCS

THE DRAWINGS AND SPECIFICATIONS INCLUDED OR REFERENCED HEREIN SHALL BE USED AS A COMPLETE SET AND SHALL NOT BE SEPARATED INTO INDIVIDUAL SHEETS OR BY DISCIPLINE.

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FIELD VERIFY AND NOTIFY THE ARCHITECT OF ANY DEVIATIONS FROM THE PLANS AND / OR SPECS PRIOR TO CONSTRUCTION



PROJECT NUMBER	
585-2024-01/BCE 250061	
SHEET TITLE	
MECHANICAL NOTES, LEGEND, & SHEET INDEX	
SHEET NUMBER	
M0.1	

PERMIT SET.
06/10/2025

Beacon Consulting Engineers

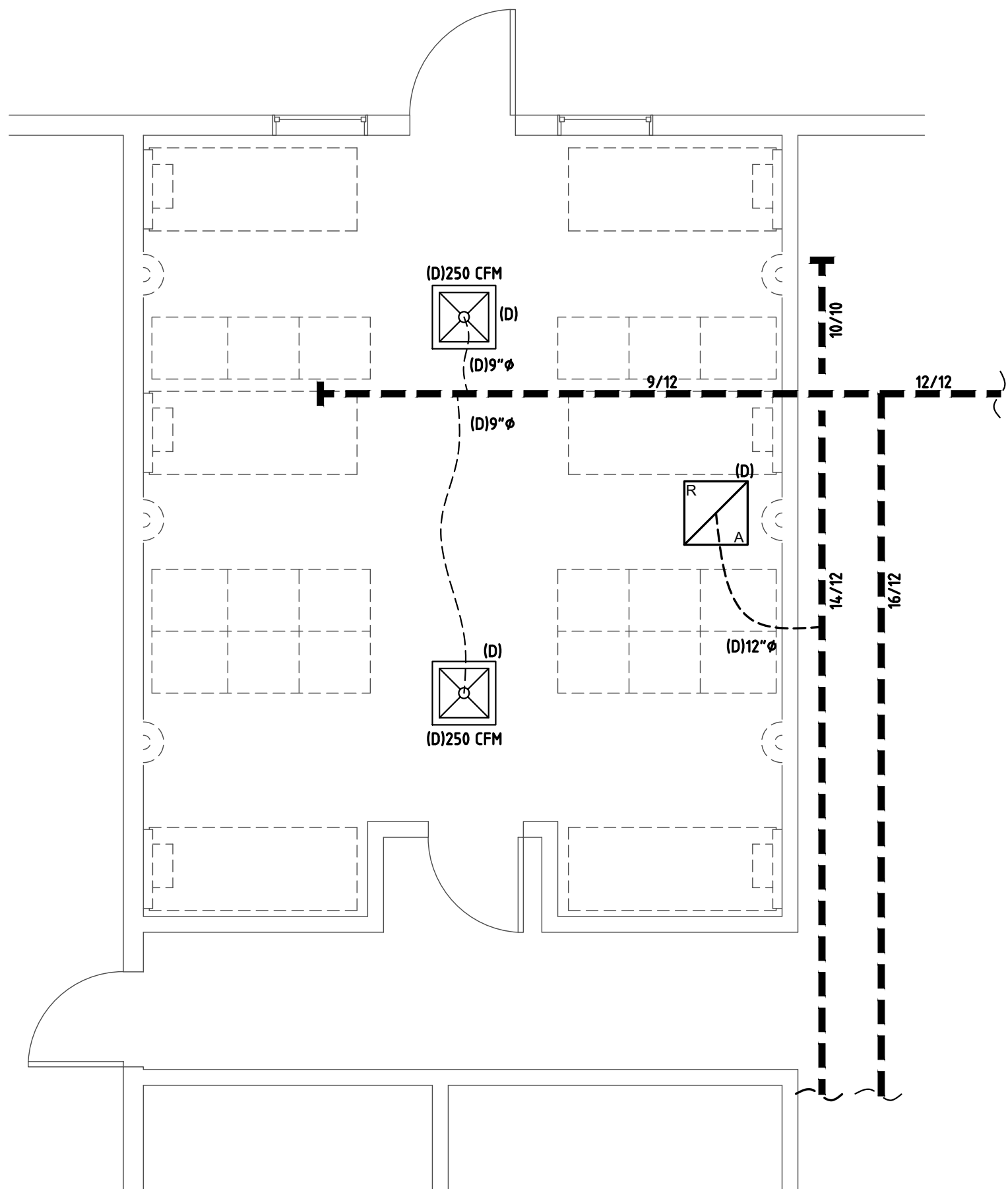
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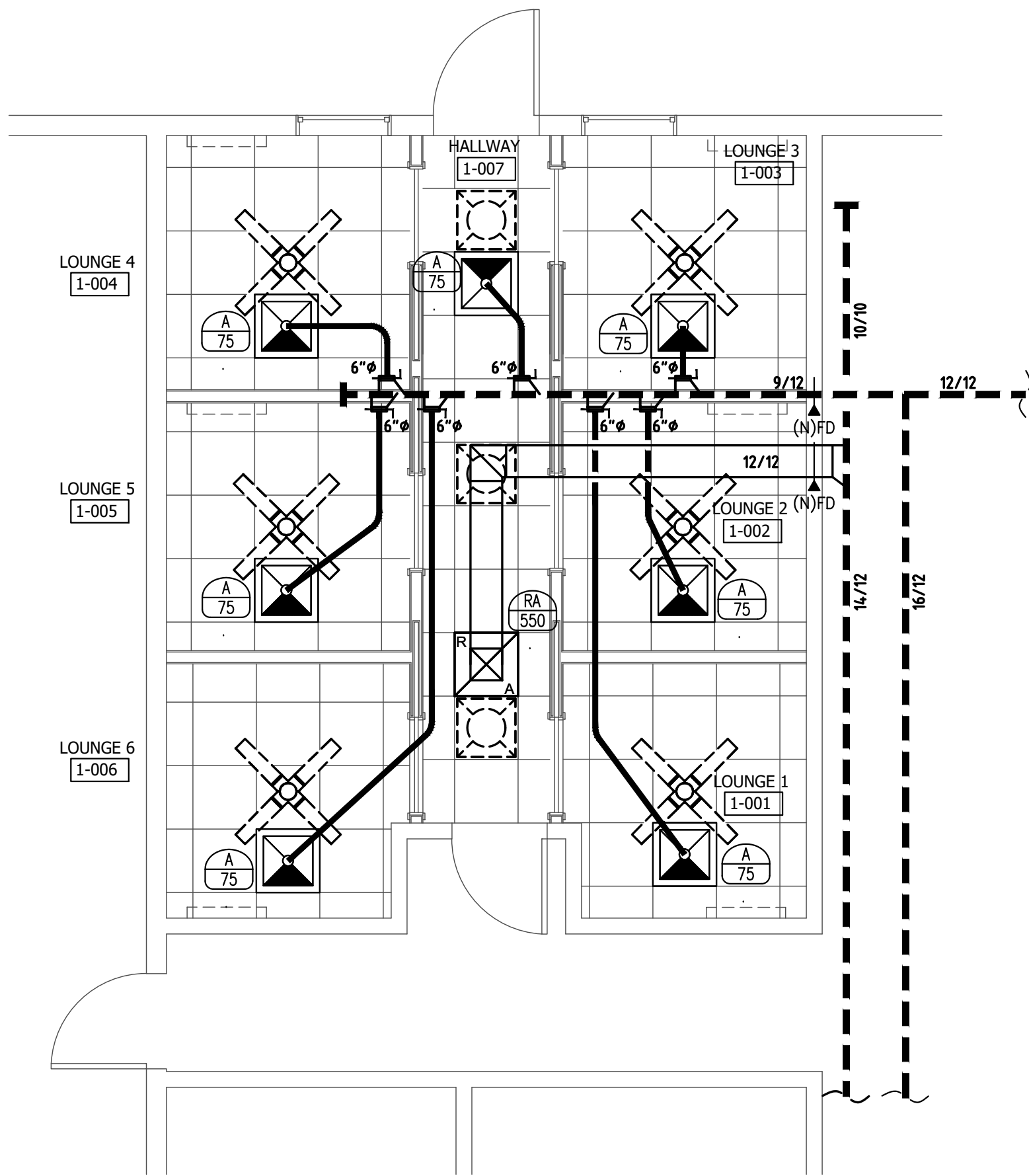
TO THE BEST OF MY KNOWLEDGE THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH THE 2023 FLORIDA BUILDING CODE, ALL AMENDMENTS AND SECTION 633 OF THE FLORIDA STATUTES.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ANGELO L. DA SILVA, P.E., ON 11/21/2025.

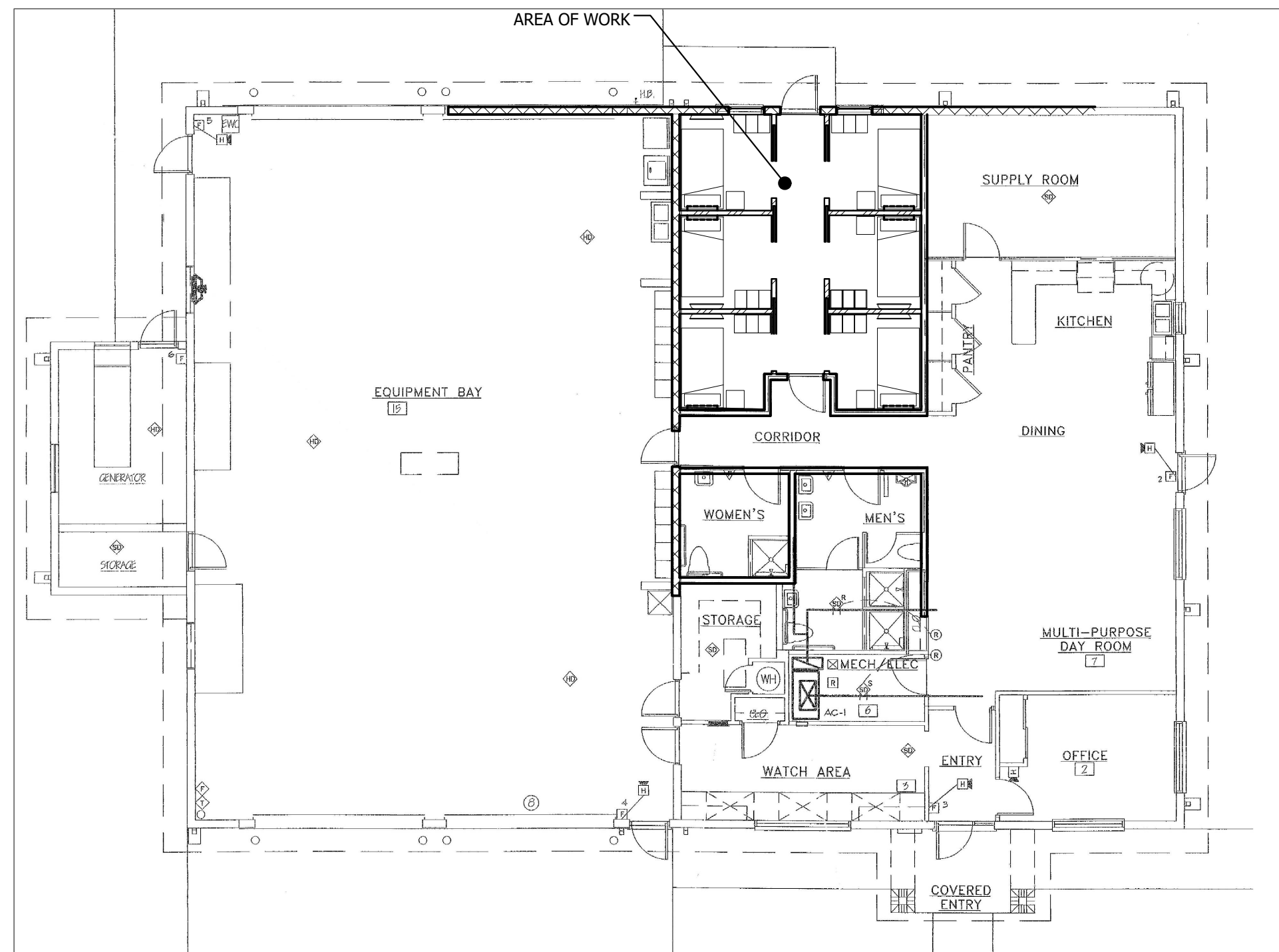
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01 MECHANICAL DEMO PLAN
1/4" = 1'-0"



02 MECHANICAL PLAN
1/4" = 1'-0"



03 KEY PLAN
N.T.S.

NEW SCOPE OF WORK KEY NOTES:

- EXISTING OPEN LOUNGE AREA IS BEING DIVIDED INTO SIXES LOUNGES ROOM TO PROVIDE PRIVACY.
- PROVIDE NEW SUPPLY GRILLE AND NEW SUPPLY FLEX DUCT AS SHOWN.
- PROVIDE NEW FIRE DAMPER AS SHOWN. CONTRACTOR TO FIELD VERIFY THE EXISTENCE OF THE FIRE DAMPER PRIOR TO BIDDING AND TO PROVIDE NEW FIRE DAMPER IF THE EXISTING SUPPLY AND RETURN DUCT DO NOT HAVE FIRE DAMPERS AT WALL PENETRATION.
- EXISTING BUILDING AIR CONDITIONING UNIT IS EXISTING AND WILL REMAIN. BUILDING OCCUPANCY IS EXISTING AND WILL REMAIN. EXISTING FRESH AIR REQUIREMENTS SHOULD REMAIN AND IT IS NOT TO BE AFFECTED WITH THIS RENOVATIONS.

DEMOLITION KEY NOTE:

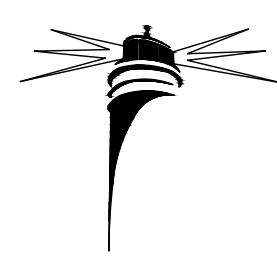
- REMOVE SUPPLY AND RETURN GRILLS DUCT TO TERMINATE AT MAIN TRUNK.

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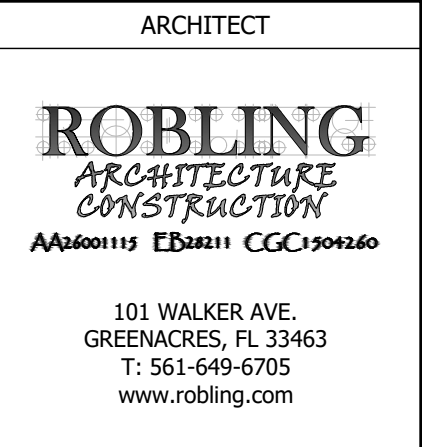
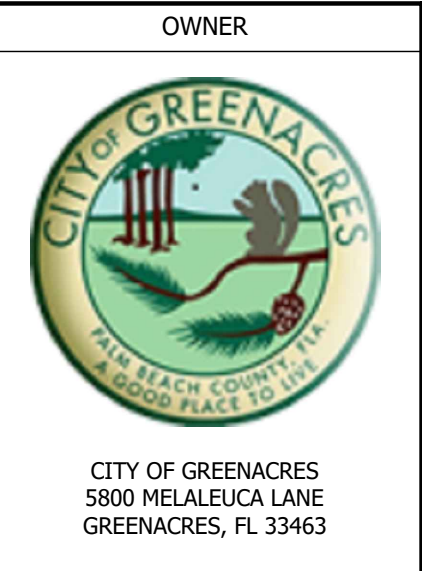
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PERMIT SET.
06/10/2025



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Mechanical • Plumbing • Electrical • Fire Protection
Consulting Engineering



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585-2024-01/BCE 250061	
SHEET TITLE	
MECHANICAL PLAN	
SHEET NUMBER	
M1.1	

AIR DEVICE SCHEDULE							
UNIT TAG	MFGR & MODEL	CFM RANGE	FACE SIZE /MODULE	NECK	FRAME	THROW	REMARKS
A	TITUS TDC-AA	0-199	24x24 / 24x24	6"ø	LAY-IN	3-4-9	INSULATE BACK OF DIFFUSER
RA	TITUS 3 FL	-	24x24 / 24x24	22x22	SURFACE MTD.	-	EGGCRATE RETURN/TRANSFER GRILLE
<div>AIR TERMINAL NOTES: 1) AIR DEVICE SIZES & SCHEDULE AIRFLOW ARE AT THIS SCHEDULE UNLESS OTHERWISE NOTICED ON HVAC FLOOR PLANS. 2) BRANCH & OPTIONAL BRANCH DUCT SIZES ARE AT THIS SCHEDULE UNLESS OTHERWISE NOTICED ON HVAC FLOOR PLANS. 3) ALL AIR DEVICES INSTALLED IN WACCESSIBLY AND/OR DRYWALL CEILING SHALL BE PROVIDED WITH MANUAL OPPOSED BLADE DAMPERS. 4) ALL AIR DEVICES INSTALLED IN LAY-IN CEILING SHALL HAVE MANUAL VOLUME DAMPER INSTALLED IN THE BRANCH TAKE-OFF. 5) MAXIMUM PRESSURE DROP FOR ALL AIR DEVICES SHALL NOT EXCEED 0.10 IN. W.C. 6) ALL AIR DEVICES SHALL BE WHITE UNLESS OTHERWISE NOTICED. COORDINATE WITH ARCHITECT. 7) MAXIMUM NC FOR ALL DEVICES SHALL NOT EXCEED 25. 8) ALL AIR DEVICES SHALL BE ALUMINUM CONSTRUCTION UNLESS OTHERWISE NOTICED. 9) THROW VALUES ARE GIVEN FOR TERMINALS VELOCITIES OF 150, 100 & 50 FPM RESPECTIVELY. 10) COORDINATE BORDER TYPE FOR LINEAR GRILLES WITH OWNER/ARCHITECT. 11) UNLESS INDICATED OTHERWISE, LAY-IN TYPE REGISTERS & DIFFUSERS INSTALLED IN GYPSUM BOARD CEILINGS SHALL BE PROVIDED WITH RAPID MOUNT FRAME, MODEL TITUS TRM OR EQUAL.</div>							

STRAP

SCREW

SCREWS MAY BE OMITTED IF HANGER LOOPS

TYPICAL HANGING STRAP DETAIL FOR SHEET METAL DUCT

STRAP

SCREW

TYPICAL CHANNEL AND STRAP DUCT HANGING DETAIL FOR DUCT BOARD

PROVIDE 18 GAUGE ANGLE OR CHANNEL

NOTE: ALL STRAP SHALL BE A MINIMUM OF 1-1/2, 26 GA GALVANIZED STEEL, WITH A 6 FT MAXIMUM SPACING.

METHODS OF HANGING RIGID DUCT DETAIL

NO SCALE

MAX. SAG 1/2" PER FOOT BETWEEN SUPPORT POINTS

45° TAKEOFF OR ROUND BELLMOUTH COLLAR MOUNT IN SIDE OF DUCT

DUCT SEALER AT 45° TAKEOFF OR ROUND BELLMOUTH COLLAR CONNECTION TO MAIN

SUPPLY AIR DUCT

ADJUSTABLE CLAMP

22 GAUGE GALVANIZED STEEL STRAP HANGER AS PER SMACNA FIG. 3-10

VOLUME DAMPER W/ LOCKING QUADRANT & 2" STANDOFF

DUCT SEALER

INSULATE TOP PANEL OF DIFFUSER OR GRILLE

AIR DISTRIBUTION DEVICE LAYIN SHOWN. SURFACE MOUNT SIMILAR

CEILING (T-BAR SHOWN. GYP. BOARD SIMILAR)

NECK SIZE TO MATCH FLEX DUCT SIZE INDICATED

ADJUSTABLE CLAMP

DUCT SEALER

UPPER ATTACHMENT PER SMACNA

FLEXIBLE DUCT 2'-0" MIN. LENGTH

MAXIMUM D/B OFFSET ALLOWED IN LAST D INCHES TO DEVICE WHERE D IS THE INTERNAL FLEX DIAMETER

NOTES:
1. FLEXIBLE DUCTS SHALL BE ONE PIECE AND SHALL NOT BE SPLICED TOGETHER.
2. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC.
3. FLEXIBLE AIR DUCT SHALL NOT EXCEED 15 FT. WHEN EXTENDED. ELBOW RADIUS SIZED FOR NO LESS THAN R / D = 1.0.

FLEXIBLE DUCT TAKEOFF DETAIL

NO SCALE

OWNER

CITY OF GREENACRES
5800 MELALEUCA LANE
GREENACRES, FL 33463

ARCHITECT

101 WALKER AVE.
GREENACRES, FL 33463
T: 561-649-6705
www.robiling.com

CONSULTANT

PROJECT TITLE

FIRE RESCUE STATION
95 LOUNGE
RENOVATION

SUBMITTAL HISTORY

A	06/11/25 CONSTRUCTION DOCS

THE DRAWINGS AND SPECIFICATIONS INCLUDED OR REFERENCED HEREIN SHALL BE USED AS A COMPLETE SET AND SHALL NOT BE SEPARATED INTO INDIVIDUAL SHEETS OR BY DISCIPLINE.

INFORMATION CONTAINED ON ONE SHEET MAY SPECIFICALLY APPLY TO INFORMATION OR CONDITIONS ILLUSTRATED ON OTHER SHEETS.

IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT SUCH ITEMS ARE COORDINATED AND INCLUDED IN ANY PRICING INFORMATION.

FIELD VERIFY AND NOTIFY THE ARCHITECT OF ANY DEVIATIONS FROM THE PLANS AND / OR SPECS PRIOR TO CONSTRUCTION

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Angelo L. da Silva P.E.
Florida Reg. No. 78400

DIGITAL SEAL

PROJECT NUMBER

585-2024-01/BCE 250061

SHEET TITLE

MECHANICAL DETAILS

SHEET NUMBER

M2.1

PERMIT SET.
06/10/2025

Beacon Consulting Engineers

625 Casa Loma Blvd., Suite 106
Boynton Beach, FL 33435
561 424 3270

Mechanical • Plumbing • Electrical • Fire Protection
Consulting Engineering

TO THE BEST OF MY KNOWLEDGE THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH THE 2023 FLORIDA BUILDING CODE, ALL AMENDMENTS AND SECTION 633 OF THE FLORIDA STATUTES.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY ANGELO L. DA SILVA, P.E., ON 11/21/2025.

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