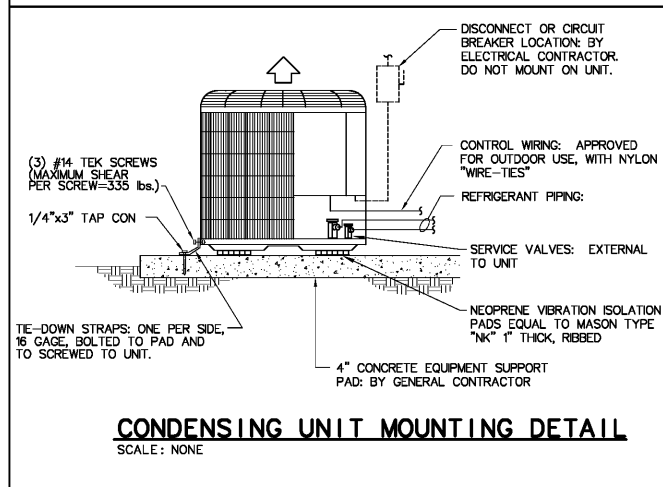
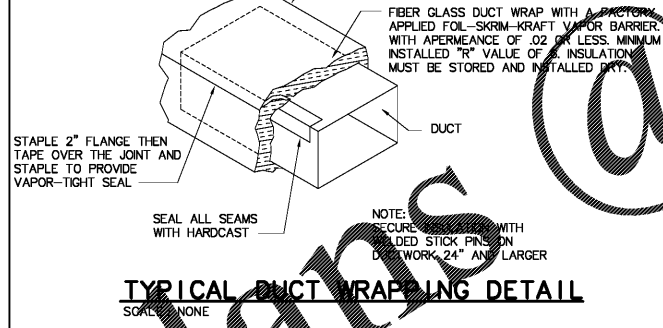


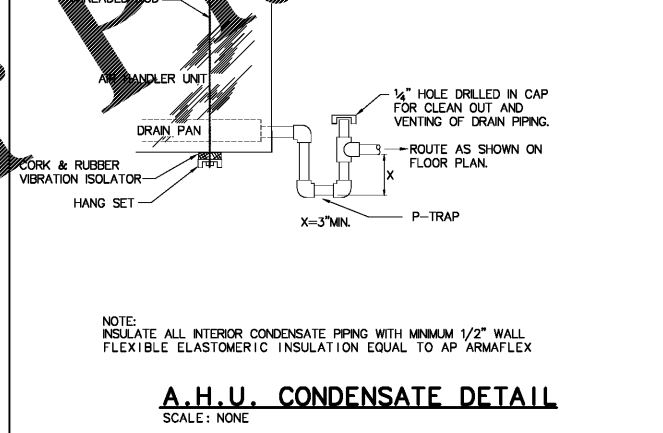
CONDENSING UNIT DETAIL
SCALE: NONE



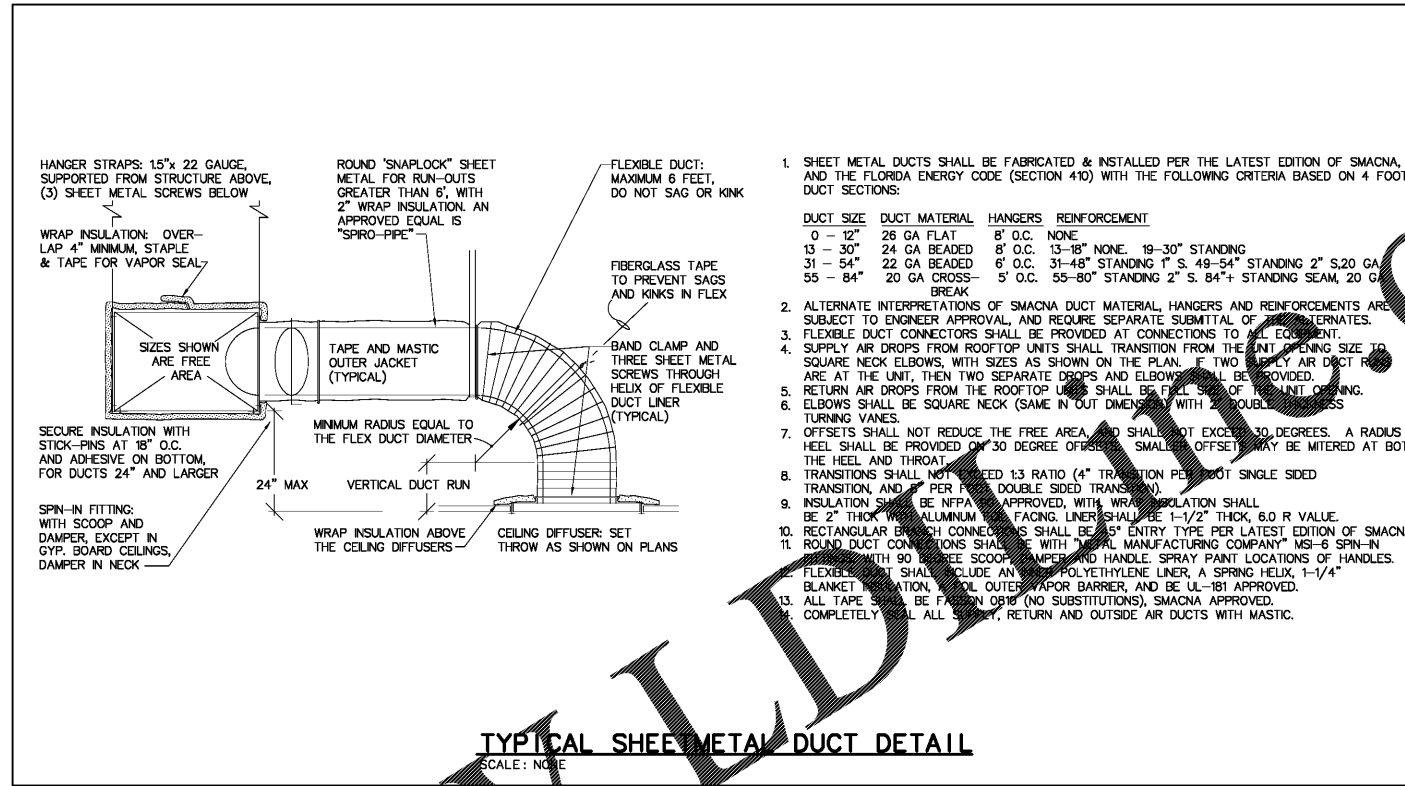
CONDENSING UNIT MOUNTING DETAIL
SCALE: NONE



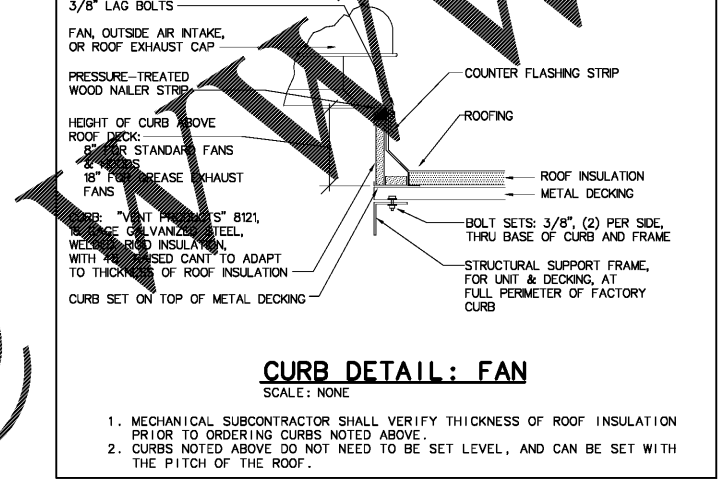
TYPICAL DUCT WRAPPING DETAIL
SCALE: NONE



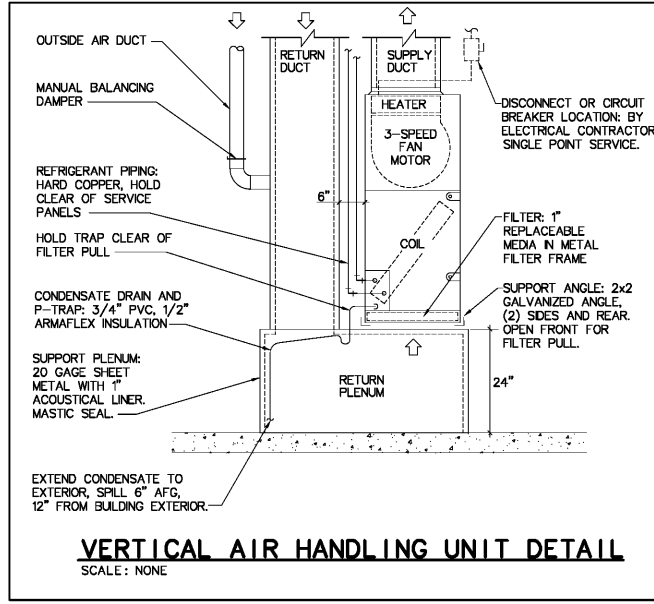
A.H.U. CONDENSATE DETAIL
SCALE: NONE



TYPICAL SHEET METAL DUCT DETAIL
SCALE: NONE



CURB DETAIL: FAN
SCALE: NONE

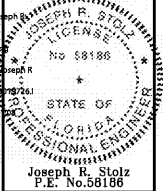


VERTICAL AIR HANDLING UNIT DETAIL
SCALE: NONE

- SHEET METAL DUCTS SHALL BE FABRICATED & INSTALLED PER THE LATEST EDITION OF SMACNA, AND THE FLORIDA ENERGY CODE (SECTION 410) WITH THE FOLLOWING CRITERIA BASED ON 4 FOOT DUCT SECTIONS:

DUCT SIZE	DUCT MATERIAL	HANGERS	REINFORCEMENT
0 - 12"	26 GA FLAT	8" O.C. NONE	
13 - 30"	24 GA BEADED	8" O.C. 13-18" NONE	19-30" STANDING
31 - 54"	22 GA BEADED	6" O.C. 31-48" STANDING	1" S. 49-54" STANDING 2" S.20 GA
55 - 84"	20 GA CROSS-BREAK	9" O.C. 55-80" STANDING	2" S. 84"+ STANDING SEAM, 20 GA
- ALTERNATE INTERPRETATIONS OF SMACNA DUCT MATERIAL, HANGERS AND REINFORCEMENTS ARE SUBJECT TO ENGINEER APPROVAL, AND REQUIRE SEPARATE SUBMITTAL OF ALL EQUIPMENT.
- FLEXIBLE DUCT CONNECTORS SHALL BE PROVIDED AT CONNECTIONS TO ALL EQUIPMENT.
- SUPPLY AIR DROPS FROM ROOFTOP UNITS SHALL TRANSITION FROM THE UNIT OPENING SIZE TO SQUARE NECK ELBOWS, WITH SIZES AS SHOWN ON THE PLAN. IF TWO SUPPLY AIR DUCTS ARE AT THE UNIT, THEN TWO SEPARATE DROPS AND ELBOWS WILL BE PROVIDED.
- RETURN AIR DROPS FROM THE ROOFTOP UNITS SHALL BE FULL SIZE OF UNIT OPENING.
- ELBOWS SHALL BE SQUARE NECK (SAME IN OUT DIMENSIONS) WITH 2" DOUBLE GROSS TURNING VANES.
- OFFSETS SHALL NOT REDUCE THE FREE AREA AND SHALL NOT EXCEED 30 DEGREES. A RADIUS HEEL SHALL BE PROVIDED ON 30 DEGREE OFFSETS. SMALLER OFFSETS MAY BE MITERED AT BOTH THE HEEL AND THROAT.
- TRANSITIONS SHALL NOT EXCEED 1:3 RATIO (4" TRANSITION PER FOOT SINGLE SIDED TRANSITION, AND 2" PER FOOT DOUBLE SIDED TRANSITION).
- INSULATION SHALL BE NFPA APPROVED, WITH WRAP INSULATION SHALL BE 2" THICK WITH ALUMINUM VAPOR BARRIER. FACING LINER SHALL BE 1-1/2" THICK, 6.0 R VALUE.
- RECTANGULAR BRANCH CONNECTIONS SHALL BE 45° ENTRY TYPE PER LATEST EDITION OF SMACNA.
- ROUND DUCT CONNECTIONS SHALL BE WITH METAL MANUFACTURING COMPANY'S MS-6 SPIN-IN WITH 90 DEGREE SCOOP HANDLE AND HANDLE. SPRAY PAINT LOCATIONS OF HANDLES.
- FLEXIBLE DUCT SHALL INCLUDE AN 1/8" POLYETHYLENE LINER, A SPRING HELIX, 1-1/4" BLANKET INSULATION, A FOIL OUTER VAPOR BARRIER, AND BE UL-181 APPROVED.
- ALL TAPE SHALL BE FABRICATED (NO SUBSTITUTIONS), SMACNA APPROVED, COMPLETELY SEAL ALL SUPPLY, RETURN AND OUTSIDE AIR DUCTS WITH MASTIC.

Joseph R Stolz



BUTLER PARK AQUATIC CENTER CITY OF NORTHPORT, FL

MECHANICAL DETAILS

Scale:	AS SHOWN
Designed by:	MP
Drawn by:	LO
Checked by:	MP/AR
Date:	DECEMBER 2017
Project No.:	48285014

SHEET MB-3.0

This item has been electronically signed and sealed by Joseph R. Stolz, P.E. On 12/15/2017 using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



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