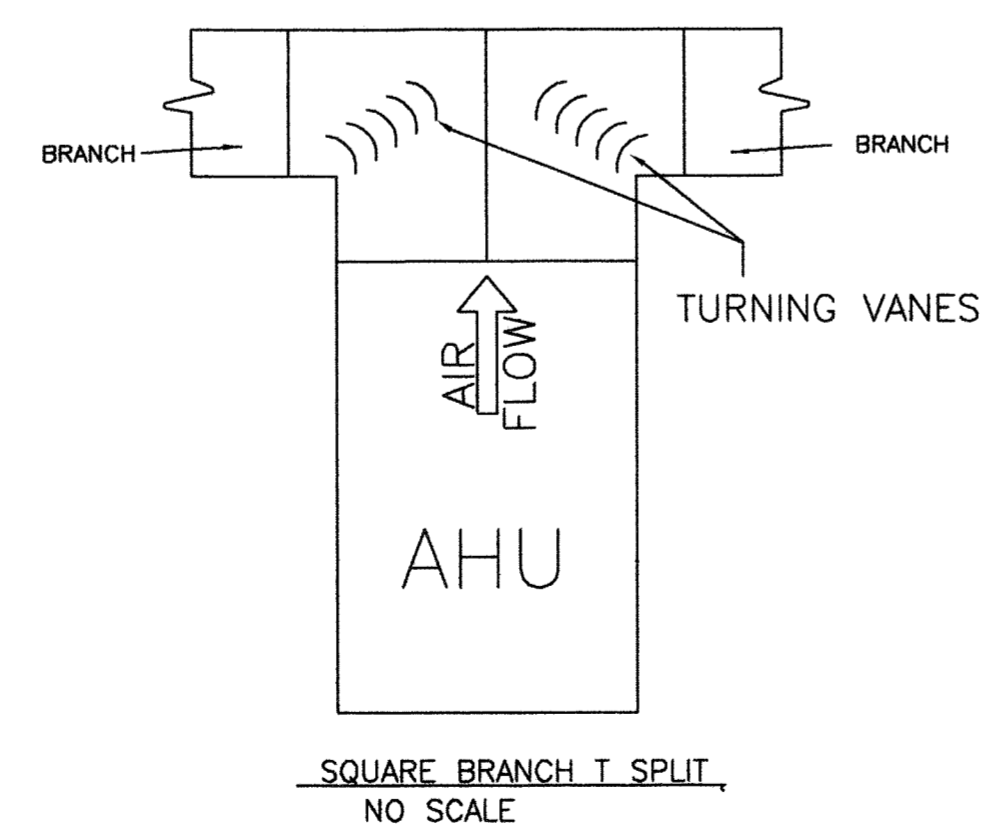


- NOTES**
- SUPPORT AS REQUIRED
 - BAND FLEX TO COLLAR 1/2" MIN FROM OUTBOARD COLLAR
 - INSTALL SPIN COLLAR DAMPER IN OPEN POSITION; FINAL ADJUSTMENT BY TAB CONTRACTOR
 - FLEXIBLE DUCTWORK INSULATION UP TO END OF SPIN COLLAR AND EDGE OF RECTANGULAR DUCTWORK; SEAL VAPOR BARRIER W/ GREY TAPE TO PREVENT MOISTURE MIGRATION
 - PROVIDE EXTENSION RODS TO ACCOMMODATE INSULATION; PULL TO EDGE OF DUCTWORK AS REQUIRED AND SEAL TO EFFECT VAPOR BARRIER
 - POP RIVET OR SHEET METAL SCREWS, MIN 3 EA. AT 120" INTERVALS, CONNECTING STOVEPIPE TO COLLAR; ENSURE RIVETS OR SCREWS DO NOT INTERFERE W/ DAMPER.
 - TAPE AND SEAL ALL JOINTS TO PREVENT LEAKAGE
 - INSTALL LOCKING QUI-DRANT AND HANDLE ON BOTTOM OF DUCT FOR EASY SERVICE (SHOWN ON TOP FOR EASE OF ILLUSTRATION ONLY)
 - FOR USE ONLY WHERE BRANCH-OUT CONNECTOR IS SMALLER THAN MAIN DUCTWORK; OTHERWISE USE BASE BUILDING STANDARD 15' TAKE-OFF WITH RECTANGULAR TO ROUND DUCT TRANSITION



MECHANICAL NOTES

- ALL DIFFUSERS AND GRILLE LOCATIONS SHALL BE COORDINATED WITH LIGHTING FIXTURES AND CEILING LAY-IN TILES.
- MOUNTING HEIGHT OF THERMOSTATS SHALL BE 5'-0" AFF.
- FRESH AIR INTAKES SHALL BE KEPT A MINIMUM OF 10 FT. FROM VENTS OR EXHAUST FANS.
- DUCT TAPS AND FLEXIBLE DUCT DIMENSIONS FROM THE MAIN DUCT TO CEILING DIFFUSERS SHALL BE THE SAME SIZE AS THE DIFFUSER NECK DIMENSION.
- CONTROLS EQUIPMENT CONTRACTOR SHALL REVIEW HVAC SPECS AND DRAWINGS TO PROVIDE ANY REQUIRED THERMOSTAT RELAYS AND APPURTENANCES NOT SPECIFIED. GENERAL CONTRACTOR SHALL COORDINATE EQUIPMENT PROVIDED BY CONTROLS CONTRACTOR TO ENSURE A FULLY COORDINATED AND FUNCTIONING SYSTEM.
- INSULATE ALL CONCEALED DUCTWORK IN UNINSULATED SPACES WITH 2" FOIL FACED DUCTWRAP BATT INSULATION. ALL DUCT DIMENSIONS ARE CLEAR INSIDE DUCT DIMENSIONS.
- ALL FLEXIBLE DUCT CONNECTIONS TO THE MAIN TRUNKS SHALL BE SPIN-ON TYPE WITH MANUAL BALANCING DAMPER LOCATED IN AN ACCESSIBLE SPACE. STRETCH FLEX DUCT TO ITS FULL LENGTH.
- ALL ELBOWS IN DUCTS SHALL BE PROVIDED WITH DOUBLE THICKNESS TURNING VANES.
- ALL AIR OUTLETS SHALL BE 24" X 24", COLOR TO MATCH CEILING TILES.
- CONTRACTOR SHALL VERIFY ALL CEILING TYPES AND THE DIFFUSER BORDER REQUIREMENTS BEFORE ORDERING DIFFUSERS AND REGISTERS.
- PROVIDE MANUALLY OPERATED BALANCING DAMPER IN EACH FRESH AIR DUCT IN AN EASILY ACCESSIBLE LOCATION. PROVIDE BALANCING DAMPERS FOR EACH DIFFUSER.
- HVAC CONTRACTOR SHALL COORDINATE HIS WORK WITH ELECTRICAL CONTRACTOR.
- ALL REFRIGERANT PIPES SHALL BE SIZED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- DUCTWORK SHOWN ON THE FLOOR PLANS ARE DIAGRAMMATIC AND IS INTENDED TO SHOW THE INTENT OF THE WORK. ALL CLEARANCES SHALL BE VERIFIED BEFORE FABRICATING DUCTWORK OR ORDERING EQUIPMENT. ALL DUCTWORK AND PIPING SHALL BE RUN CONCEALED IN CEILING SPACE.
- INSTALL SMOKE DETECTORS IN RETURN AIR DUCTS. CONNECT TO THE HVAC CONTROL BOARD TO AUTOMATICALLY DISABLE THE ENTIRE SYSTEM WHEN ACTIVATED AND SOUND AN AUDIBLE ALARM TO THE OCCUPANTS. (APPLIES TO SYSTEMS OVER 2000 CFM).
- PROVIDE FLEXIBLE DUCT CONNECTIONS AT ALL SUPPLY & RETURN DUCT CONNECTIONS TO AHU'S & RTU'S.
- PROVIDE DRIP PAN UNDER AHU'S. DRIP PAN TO HAVE INDIVIDUAL CONDENSATE DRAIN SEPARATE FROM AHU'S CONDENSATE LINE. COMBINE CONDENSATE LINES TOGETHER DOWNSTREAM FROM PAN.
- INSTALLATION OF ALL HVAC SYSTEM COMPONENTS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE MOST RECENT NFPA MANUAL, SECTION 101, WITH NFPA MANUAL TAKING PRECEDENCE. IN THE EVENT OF A CONFLICT, CONSULT WITH THE ENGINEER.
- MECHANICAL CONTRACTOR TO PROVIDE MOTOR STARTERS.
- PROVIDE FIRE DAMPERS AT ALL FLOOR AND FIRE WALL PENETRATIONS.
- PROVIDE TESTING AND BALANCING FOR ALL DUCT SYSTEMS.
- IN THE EVENT OF A DISAGREEMENT BETWEEN THE DRAWINGS AND THESE NOTES, THE NOTES SHALL TAKE PRECEDENCE.

FIRE SAFETY NOTES

- HVAC SUPPLEMENTAL MATERIALS SHALL HAVE A FLAME SPREAD RATING NOT TO EXCEED 25 AND A SMOKE DEVELOPED RATING NOT TO EXCEED 50 WHEN TESTED IN ACCORDANCE WITH NFPA 255.
- EXHAUST FLUES FOR HEAT PRODUCING EQUIPMENT SHALL COMPLY WITH THE MATERIALS REQUIREMENTS OF NFPA 21F.

EQUIPMENT SCHEDULE

MARK	MFG. MOD #	COOL/HEAT (MBH)	AIRFLOW (CFM)	ELEC. DATA			DESCRIPTION	WEIGHT/DIMENSIONS	REMARKS	
				VOLT/PH	FLA/RLA	MCA/BRKR				
RTU	TRANE 4YCZ6080A1120	57.5	2000	208/1	29.0	37.1	60	15.1	5 TON PACKAGED AIR CONDITION. WITH GAS HEAT	61"Lx46"Wx42"H; 656 LBS. PROVIDE W/ECONOMIZER & LOW AMBIENT KIT
COND-1	TRANE 2TTZ9060C1	60.0	---	208/1	29.6	37	60	17.5	5 TON SPLIT SYSTEM 2 STAGE COMMUNICATING AIR CONDITIONER	59"Hx34"Wx37"; 459 LBS.
AHU-1	TRANE TUH30120ACV5V	114	2000	115/1	12.5	16.0	20	---	5 TON SPLIT SYSTEM COMMUNICATING VARIABLE SPEED CONDENSING GAS FURNACE	28"Wx24"Hx40"; 206 LBS.; 3" CONC. FLUE
COIL-1	TRANE 2TXCC064BC3	60.0	---	---	---	---	---	17.5	5 TON HIGH EFFICIENCY CASED COOLING COIL W/ TXVNB	30"H x 25"W x 22"D; 68 LBS
COND-2	TRANE 2TTZ9036C1	36.0	---	208/1	16.8	22	35	17.5	3 TON SPLIT SYSTEM 2 STAGE COMMUNICATING AIR CONDITIONER	59"Hx34"Wx37"; 442 LBS.
AHU-2	TRANE TUH38080ACV3V	75	1200	115/1	6.5	10.4	15	---	3 TON SPLIT SYSTEM COMMUNICATING VARIABLE SPEED CONDENSING GAS FURNACE	28"Wx18"Hx40"; 168 LBS.; 3" CONC. FLUE
COIL-2	TRANE 2TXCC037BC3	36.0	---	---	---	---	---	17.5	3 TON HIGH EFFICIENCY CASED COOLING COIL W/ TXVNB	23"H x 18"W x 22"D; 48 LBS
EF-1	BROAN # L250	---	259.0	115/1	1.4A	2.1A	15	---	BATHROOM EXHAUST FAN	3 UNIT BATHROOMS; 6" EXH. DUCT
COND-1 (OPT)	TRANE 4TWX6060B1000	60.0	58.0	208/1	13.4	37.0	60	17.0	HI EFF. 5 TON SPLIT SYSTEM HEAT PUMP CONDENSER; R-410	48"Hx33"Wx35"H; 281 LBS.
COND-2 (OPT)	TRANE 4TWX6036B1000	37.2	35.8	208/1	23	24.0	40	17.0	HI EFF. 3 TON SPLIT SYSTEM HEAT PUMP CONDENSER; R-410	44"Hx33"Wx35"H; 281 LBS.

ENGINEER'S CERTIFICATION STATEMENT

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 16927. EXPIRATION DATE MAY 12, 2010.

MATERIALS KEYNOTES

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
W' X D'	RECTANGULAR DUCT, WIDTH X DEPTH (INCHES)
W' X D' / ELEV	RECTANGULAR DUCT, CHANGE IN ELEVATION
D"φ	ROUND FLEXIBLE DUCT, DIAMETER (INCHES)
D"φ	ROUND RIGID DUCT, DIAMETER (INCHES)
24" X 24" LAY-IN DIFFUSER, CFM AS SHOWN	24" X 24" LAY-IN DIFFUSER, CFM AS SHOWN
24" X 24" LAY-IN RETURN, CFM AS SHOWN	24" X 24" LAY-IN RETURN, CFM AS SHOWN
ROUND DIFFUSER, ROUND NECK, SIZE SHOWN ON SCHEDULE	ROUND DIFFUSER, ROUND NECK, SIZE SHOWN ON SCHEDULE
ROUND RETURN, ROUND NECK, SIZE SHOWN ON SCHEDULE	ROUND RETURN, ROUND NECK, SIZE SHOWN ON SCHEDULE
BD	BALANCING DAMPER
T	THERMOSTAT
BD	BACKDRAFT DAMPER
FD	FIRE DAMPER

DUCTWORK DETAILS NOTES

- ALL DUCTWORK SHALL BE CONSTRUCTED AND ERECTED IN A NEAT AND WORKMANLIKE MANNER
- DUCTS SHALL BE CONSTRUCTED OF THE WEIGHTS, GAGES AND MATERIAL SHOWN IN THE SCHEDULE ON THESE DRAWINGS
- THE DIMENSIONS FOR DUCTS SHOWN IN THE PLANS GIVE THE VIEWED DIMENSION FIRST.
- DUCT RISERS SHALL BE SUPPORTED BY ANGLES AT EVERY FLOOR TO PREVENT TURBULANCE
- AIR TURN VANES SHALL BE INSTALLED IN ALL ABRUPT ELBOWS TO PREVENT TURBULANCE
- DUCTS SHALL BE SECURELY ATTACHED TO THE BUILDING CONSTRUCTOR IN AN APPROVED MANNER
- DIVERGING TRANSITION PIECES SHOULD BE MADE AS GRADUAL AS POSSIBLE
- INSTALL FIRE DAMPER AS REQUIRED BY N.F.P.A PAMPHLET NO. 90A, OF LOCAL CODES
- ACCESS PANELS SHOULD BE PLACED BEFORE AND/OR AFTER EQUIPMENT INSTALLED IN THE DUCT
- DUCT AREA SHOULD NOT BE DECREASED MORE THAN 10 PERCENT WHEN OBSTRUCTIONS CANNOT BE AVOIDED, AND THEN A STREAMLINED FITTING SHOULD BE USED
- FLEXIBLE CONNECTIONS SHOULD BE USED ON BOTH THE INLET AND OUTLET TO ALL FANS
- JOINTS AND SEAMS OF SUPPLY DUCTS SHALL BE FASTENED SECURELY AND MADE AIR TIGHT

SHEET METAL THICKNESS TABLE

GAUGE	24	22	20
MAX DIM. LONG SIDE	UP TO 28"	52"	82"

REVISIONS/SUBMISSIONS _____ Date _____

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Solomons Yacht Club
Solomons Island, MD

Drawing Title: **MECHANICAL DETAILS**

Seal: _____

Designed: BL
Drawn: NL
Checked: BL
Reviewed: BL
Date: MAR. 24, 2009

Project No.: _____
Scale: NOTED
Drawing No.: **M-3**
3 of 3