



CONTROL ROOM HVAC PLAN
SCALE: 1/4" = 1'-0"

SECTION
SCALE: 1/4" = 1'-0"

CONTROL ROOM MECHANICAL PLAN
SCALE: 1/4" = 1'-0"

DETAIL
SCALE: NONE

EQUIP. NO.	AREA	SERVED	MANUF. MODEL NO.	LOCATION	CFM	OA	ESP** (IN. WG.)	HP	FLA	LRA	GTH	COILING COIL				REMARKS	
												DEG. F	DEG. F	DEG. F	DEG. F		
DXAH-1	CONTROL ROOM	1	TRANE TWE-018	CONTROL ROOM	400	60	0.82	0.125	0.9	1.6	13,767	8,572	7,711	5,711	5,711	1	1.1 x 4 & 5 THRU 16
DXAH-2	CONTROL ROOM	2	TRANE TWE-018	CONTROL ROOM	550	80	0.45	0.135	0.9	1.6	18,028	10,881	78.3	64.4	54.3	23	1.1 x 4 & 5 THRU 16
DXAH-3	OFFICE	3	TRANE TWE-018	OFFICE	850	140	0.68	0.33	2.1	4.5	28,000	19,318	77.4	63.2	54.1	95	2.3 x 4 & 5 THRU 16

SUMMER OUTDOOR CONDITIONS AT PEAK:
1. 89 DEG. F DB / 77 DEG. F WB
2. 87 DEG. F DB / 77 DEG. F WB
3. 75 DEG. F DB / 50Z RH
4. 19 DEG. F DB
5. 75 DEG. F DB
6. SEaled OPERAT REVERED
7. REFRIGERANT CONTROL BOX W/24V CONTROL/TRANSFORMER
8. ACUTION - REFRIGERANT FLOW CONTROL/CHECK VALVE
9. ONE INCH THROUGHWAY FILTERS
10. DIRECT DRAIN, MULTI-SPEED PUMP

WINTER OUTDOOR CONDITIONS AT PEAK:
1. 19 DEG. F DB
2. 19 DEG. F DB
3. 75 DEG. F DB
4. 19 DEG. F DB
5. 75 DEG. F DB
6. SEaled OPERAT REVERED
7. REFRIGERANT CONTROL BOX W/24V CONTROL/TRANSFORMER
8. ACUTION - REFRIGERANT FLOW CONTROL/CHECK VALVE
9. ONE INCH THROUGHWAY FILTERS
10. DIRECT DRAIN, MULTI-SPEED PUMP

** EXTERNAL STATIC PRESSURE (ESP) BASED ON FAN AT HIGH SPEED.

11. FILTER DOOR W/VEIL
12. 1" FOIL FACED CABINET INSULATION
13. DUCT FLANGE W/THERMAL BREAK
14. ACCESS DOOR W/GASKET
15. CORROSION RESISTANT SCREWS
16. ROOM THERMOSTAT BY UNIT MANUFACTURER

EQUIP. NO.	UNIT	MANUF. MODEL NO.	LOCATION	NOMINAL CAPACITY MBH	SUCTION TEMP. DEG. F	EA TEMP. DEG. F	ELECT. V/PH/Hz	COMPRESSOR F.L.A.	COMPRESSOR LRA	CONDENSER F.P.A.	CONDENSER MCA	CONTROL	REMARKS
ACCU-1	DXAH-1	TRANE	SCOUT OFFICE	18	N/A	95	208/1/60	7.0	42.0	0.88	11	24 VOLT	1
ACCU-2	DXAH-2	TRANE	CONTROL ROOM	18	N/A	95	208/1/60	7.0	42.0	0.88	11	24 VOLT	1
ACCU-3	DXAH-3	TRANE	OFFICE	30	N/A	95	208/3/60	9.8	74	0.9	13	24 VOLT	1

SYSTEM NO.	DESCRIPTION	DUCT PRESSURE - IN. WG.		DUCT INSULATION**		NO. INSULATION
		A	B	A	B	
DXAH-1	CONTROL ROOM ALL SUPPLY AND RETURN DUCT	-2	-2	-	-	-
DXAH-2	CONTROL ROOM ALL SUPPLY AND RETURN DUCT	-2	-2	-	-	-
DXAH-3	OFFICE ALL SUPPLY AND RETURN DUCT	-2	-2	-	-	-

1. PRECLUDE OR BYPASS CONDENSER COIL COILING.
2. SEE SPECIFICATION SECTIONS 15.900, 15.911 & 15.999 FOR INSULATION REQUIREMENTS.

ABBREV.	DESCRIPTION
ACCU	AIR COOLED CONDENSING UNIT
AF	FLOOR FINISHED
DB	DRY BULB TEMP.
DXAH	DIRECT EXPANSION AIR HANDLER
EAT	EXHAUST AIR TEMPERATURE
EW	EXHAUST
FC	FLEXIBLE CONNECTION
FF	FINISHED FLOOR
FGB	FLOOR ON BOTTOM
LAT	LEAVING AIR TEMP.
OA	OUTSIDE AIR
PA	PLANT AIR
PW	POURABLE WATER
RA	RETURN AIR
WB	WET BULB TEMP.

SYMBOL	DESCRIPTION
(Symbol)	TURNING VANES
(Symbol)	VOLUME DAMPER
(Symbol)	W/ LOCKING QUADRAM
(Symbol)	BOTTOM OUTLET
(Symbol)	SUPPLY DIFFUSER
(Symbol)	FLEXIBLE CONNECTION
(Symbol)	EXHAUST OR RETURN DUCT
(Symbol)	SUPPLY DUCT
(Symbol)	AIR DUCT
(Symbol)	AIR FLOW
(Symbol)	W/ LOCKING QUADRAM
(Symbol)	RETURN OR EXHAUST
(Symbol)	THERMOSTAT

GENERAL NOTES:
1. MECHANICAL DRAWINGS ARE IN PART DIAGNOSTIC AND INTENDED TO SHOW THE SCOPE AND GENERAL ARRANGEMENT OF THE WORK UNDER THIS CONTRACT. CONTRACTOR SHALL FOLLOW THESE DRAWINGS IN LAYING OUT THE EQUIPMENT AND PIPING. WHERE JOB CONDITIONS REQUIRE MINOR CHANGES OR ADJUSTMENTS IN THE INDICATED LOCATIONS OR ARRANGEMENT OF THE WORK, SUCH CHANGES SHALL BE MADE WITHOUT CHANGE IN THE CONTRACT AMOUNT.
2. THE CONTRACTOR SHALL VISIT THE JOB SITE TO FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE WORK AND TO COORDINATE THE WORK WITH OTHER CONTRACTORS ON THE PROJECT. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION OF EQUIPMENT.
3. UNLESS OTHERWISE SHOWN ON DRAWINGS OR SPECIFIED HEREIN, PRODUCTS USED IN THE WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.
4. ALL AIR HANDLING UNIT CONDENSATE DRAINS SHALL BE PROVIDED WITH A P-TRAP AND SHALL BE INSULATED WITH 1/2" THICK ARMAFLEX INSULATION.
5. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS. THICKNESS OF INSULATION SHOULD BE ADDED FOR ACTUAL DUCT SIZE. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
6. DUCTWORK AND PIPING INSTALLATION SHALL BE SO ARRANGED AS TO AVOID USING SPACE RESERVED FOR NORMAL EQUIPMENT ACCESS FOR INSPECTIONS, PREVENTIVE MAINTENANCE OR CLEANING.
7. AIR HANDLING UNITS SHALL BE EQUIPPED WITH UNIT MANUFACTURER, WALL-MOUNTED THERMOSTATS TO SEQUENCE COOLING AND ELECTRIC HEATING AS REQUIRED TO MAINTAIN SPACE TEMPERATURE.
8. AIR CONDITIONING SYSTEMS SHALL BE BALANCED IN ACCORDANCE WITH NEBS OR AEC PRECEDURES, AND A WRITTEN REPORT SUBMITTED TO THE OWNER AFTER COMPLETION OF WORK.

MARK	TYPE	MANUFACTURER MODEL	NECK OR W/LET SIZE (INCHES)	BOILER TYPE	DAMPER	FINISH	REMARKS
A	SUPPLY	TITUS	24 x 24	LAV IN	N/A	ALUMINUM	2 & 3
B	DIFFUSER	TITUS	24 x 24	LAV IN	N/A	ALUMINUM	1 & 5
C	DIFFUSER	TITUS	24 x 24	LAV IN	N/A	ALUMINUM	2 & 3
D	RETURN	TITUS	24 x 24	LAV IN	N/A	ALUMINUM	1 & 4
E	RETURN	TITUS	24 x 24	LAV IN	N/A	ALUMINUM	1 & 4

1. MODEL D-75 OPPOSED BLADE DAMPER.
2. EXTRUDED ALUMINUM, HIGH PERFORMANCE DRAINABLE LOWER.
3. POSITION 1.
4. POSITION 1.
5. 1" MOLDED FIBERGLASS (R-8) FACTORY INSTALLED BACK PNL.

ISSUED FOR BID/CONSTRUCTION - STAGE 1 PACKAGE

18 FEB 2005

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Lockwood & Construction

ENGINEERING & CONSTRUCTION

Spotingburg, South Carolina

CONTROL BUILDING

HVAC/MECHANICAL PLANS,

SECTIONS, DETAILS AND SCHEDULES

PHASE VII

MARINE MAINTENANCE FACILITY

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

WANNAS HARBOR, NC

Scale: 1/4" = 1' - 0"

0 2 4 6 8 10

10-FEB-2005

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