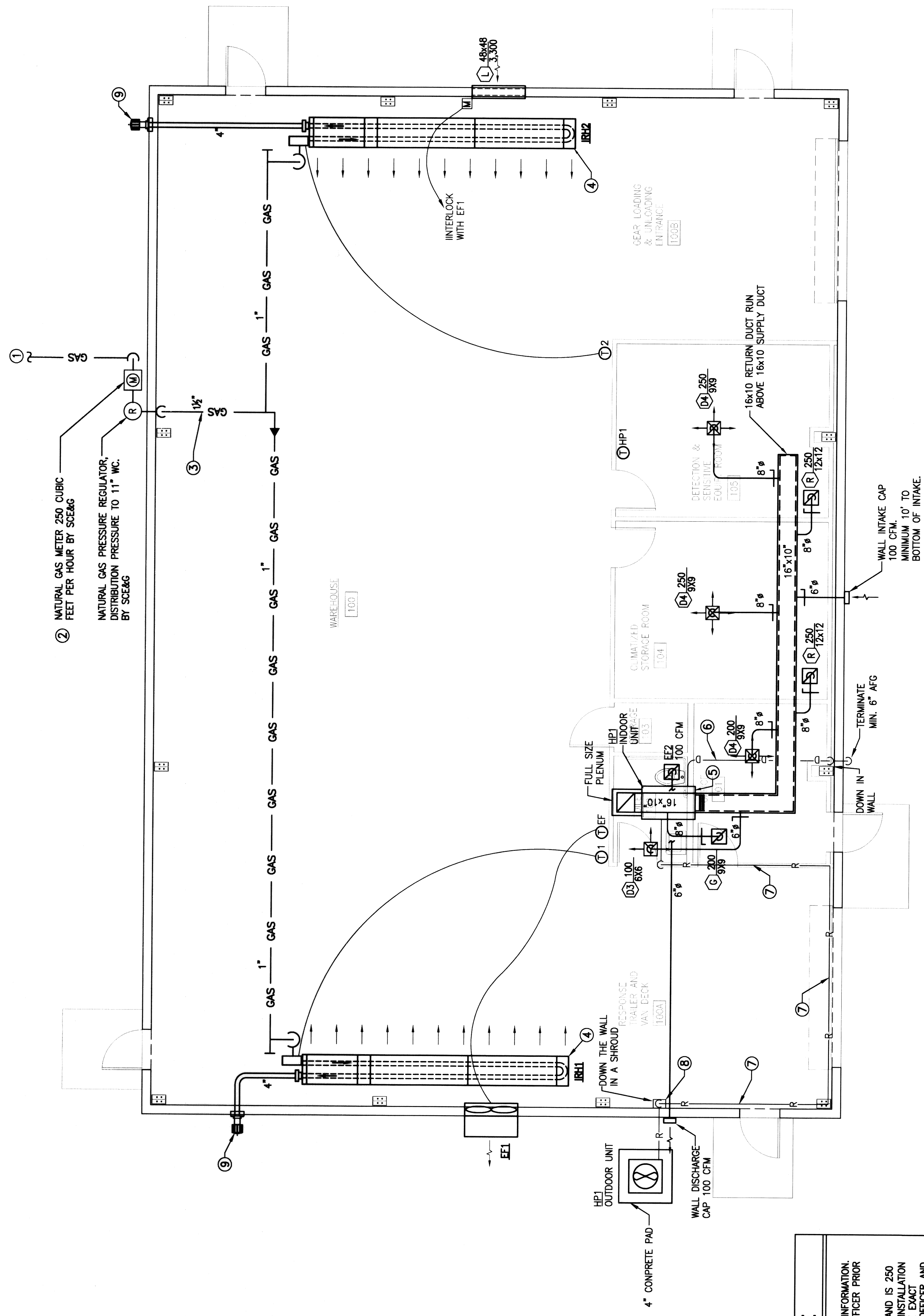


SYMBOL	REVISIONS	DESCRIPTION	DATE	APP.



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

NEW WORK NOTE SCHEDULE	
1	UNDERGROUND NATURAL GAS SERVICE. SEE DWG C3 FOR ADDITIONAL INFORMATION. COORDINATE SERVICE INSTALLATION WITH SCE&G AND CONTRACTING OFFICER PRIOR TO CONSTRUCTION.
2	NATURAL GAS METER AND REGULATOR PROVIDED BY SCE&G. GAS DEMAND IS 250 CUBIC FEET PER HOUR AT 11" WG. CONTRACTOR SHALL COORDINATE INSTALLATION WITH SCE&G. SEE DWG C3 FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION OF METER AND REGULATOR PLACEMENT WITH CONTRACTING OFFICER AND SCE&G.
3	GAS PIPING RUN OVERHEAD TO HEATERS. PROVIDE SHUT OFF VALVE AND INDICATORS AS REQUIRED. CONTRACTOR SHALL NOT INSTALL ANY GAS PIPING UNDER SLAB OR BELOW GROUND.
4	NATURAL GAS INFRARED HEATER. COORDINATE EXACT GAS REQUIREMENTS PRIOR TO CONSTRUCTION.
5	INDOOR HEAT PUMP UNIT. INSTALL ON PLATFORM ABOVE TOILET ROOM 102. PROVIDE VIBRATION ISOLATION AND INSULATED AUXILIARY DRAIN PAN WITH FLOAT SWITCH.
6	PROVIDE 1" INSULATED COPPER CONDENSATE DRAIN TO BUILDING EXTERIOR.
7	ROUTE REFRIGERANT LINES AS HIGH AS POSSIBLE IN WAREHOUSE AREA.
8	PROVIDE 16 GA GALVANIZED METAL SHROUD AROUND REFRIGERANT LINE VERTICAL DROP.
9	PROVIDE GALVANIZED STEEL COMBUSTION AIR AND EXHAUST DUCT WITH MANUFACTURER'S STANDARD HOODS THROUGH SIDEWALL. CAREFULLY SAW CUT WALL AND INSTALL DUCTWORK AND HOODS PER MANUFACTURER'S WRITTEN INSTRUCTIONS. COORDINATE INSTALLATION AND COLORS WITH ARCHITECTURAL TRADES.

IF SHEET IS LESS THAN (30"x42") IT IS A REDUCED PRINT; SCALE ACCORDINGLY

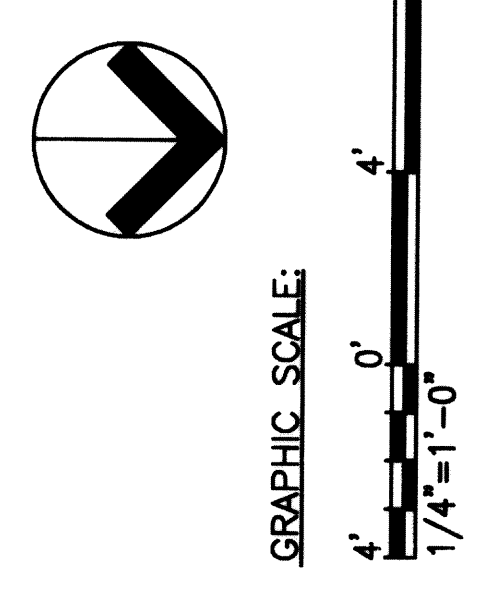
M1

ARCHITECTS BES INCORPORATED ARCHITECTS & ENGINEERS ARCH. & ENGR. SEAL 27.07.007.200; 2000; I.C. 2001-2002; 24-52-204	ENGINEERS BES INCORPORATED ENGINEERING SERVICES, INC. NO. 00070 CERTIFIED STATE OF CAROLINA	NATURAL RESOURCES & ENVIRONMENTAL AFFAIRS SATISFACTORY TO DATE <i>Supriya R. Coates</i> 02/09/09	F.W. DWG. NO. 18799
		SAFETY DEPARTMENT SATISFACTORY TO DATE <i>R. Vaughan</i>	DRAWN BY JMA
		FIRE DEPARTMENT SATISFACTORY TO DATE <i>Spencer</i> 7/22/09	CHECKED BY R. VAUGHAN
		INTEGRATED SERVICES SATISFACTORY TO DATE	SUPERVISOR R.L. DELBACH
			APPROVED <i>[Signature]</i> 7-27-09
			DATE 7-27-09
			SIZE F
			PROJ. NO. BCD921R
			CONSTR. CONTR. NO. N82467
			SCALE AS NOTED
			MACC.
			T.O.#
			SHEET 17 OF 27

CONSTRUCT CBRNE WAREHOUSE
MECHANICAL PLAN

DEPARTMENT OF THE NAVY
MARINE CORPS AIR STATION
BEAUFORT, S. C.

JUNE 2009



MECHANICAL LEGEND

- EF-1 EXHAUST FAN DESIGNATION
- ⊙_{Ex} SENSOR (TEMP)
- ⊙_{HP} SENSOR (TEMP & HUMIDITY)
- ⊗ ← DIFFUSER, DIRECTION OF FLOW AS INDICATED
- RETURN AIR OUTLET
- ▣ EXHAUST FAN/OUTLET
- ⊙₂₅₀ / 999 (FR) DIFFUSER DESIGNATION (TYPE, CFM, NECK SIZE) (FR) DESIGNATES FIRE RATED.
- DUCT SIZE, FIRST NO. IS SIDE SHOWN
- MANUAL VOLUME DAMPER
- RA RETURN AIR
- M MOTORIZED DAMPER OPERATOR
- ⊙ NATURAL GAS METER
- ⊙ NATURAL GAS PRESSURE REGULATOR

REGISTER, LOUVER & GRILLE SCHEDULE

MARK	TYPE	SERVICE	PATTERN	BLOW	REMARKS/NOTES
D4	SQUARE DIRECTIONAL (LOUVER FACE) CEILING DIFFUSER	SUPPLY	4-WAY	4-WAY	ALUMINUM SURFACE MOUNTED
R	REGISTER FIXED ANGLED VANES SURFACE MOUNTED	EXHAUST			RETURN REGISTER AS INDICATED-45° ANGLED VANES-ALUMINUM DRAINABLE COMBINATION LOUVER-EXTRUDED ALUMINUM WITH EXTENDED SILL, BIRD SCREEN, ELECTRIC ACTUATOR, KYMAR FINISH, COLOR BY OWNER, BASIS OF DESIGN "RUSKIN ELC4450". INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
L	LOUVER DRAINABLE COMBINATION EXTRUDED ALUMINUM	INTAKE			

AIR CONDITIONING SCHEDULE

SYMBOL	HPT (HEAT PUMP)	
SEER	16 MINIMUM	
CAPACITY	24,000 BTU	
SUPPLY AIR FLOW (CFM)	800	
ELECTRICAL DATA	VOLTAGE	INDOOR 208 V, 1ϕ
		OUTDOOR 208 V, 1ϕ
	AUXILIARY HEAT	5KW 208V, 26A, MCA, 30A FUSE
	MIN. CIRC. AMPS	INDOOR 5.4
	OUTDOOR 15.9	
	MAX FUSE AMPS	INDOOR 15
		OUTDOOR 25
OUTSIDE AIR CFM	100	
ACCESSORIES	2" FARR30/30FILTER	

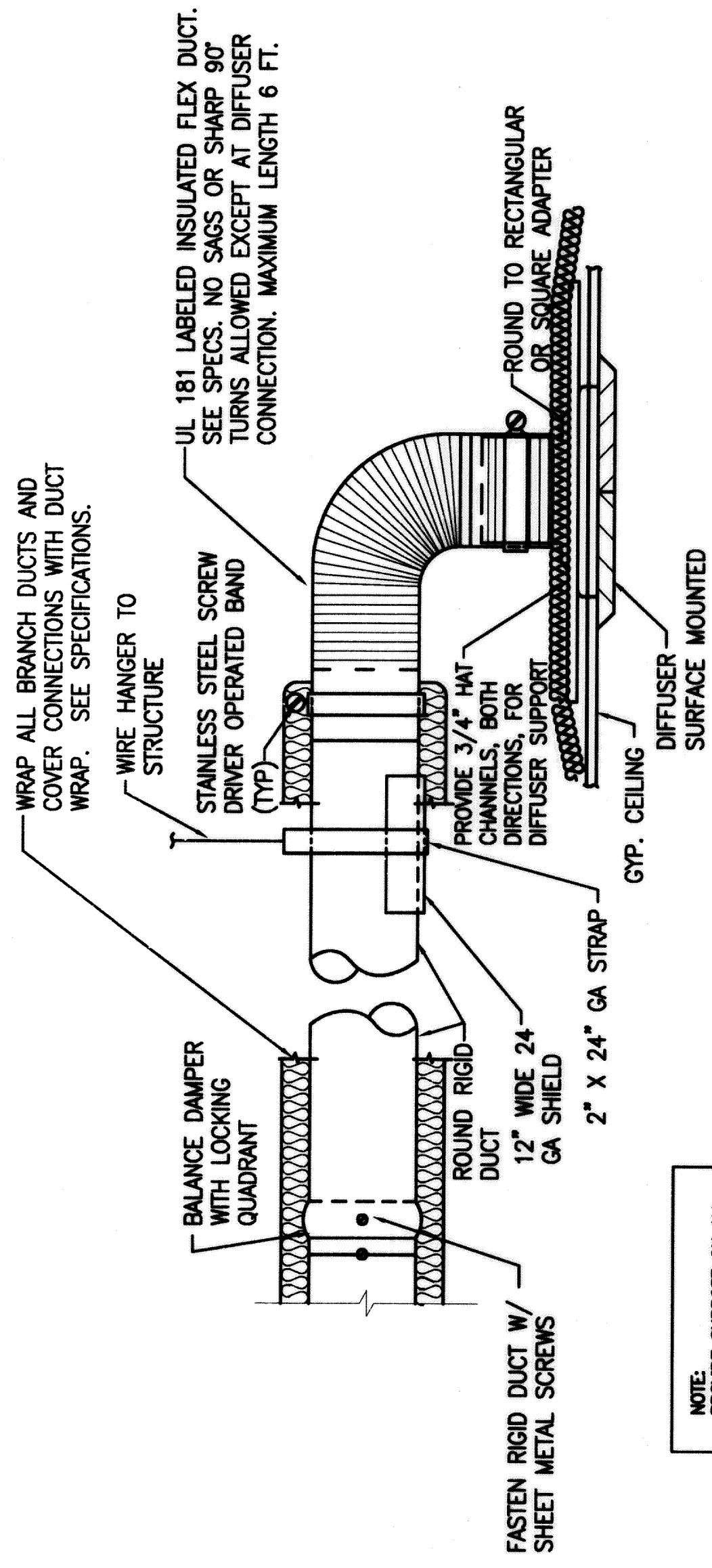
INFRA-RED HEATER EQUIPMENT

MARK	MANUF.	MODEL NUMBER	AIR INLET	INPUT RATING	GAS TYPE	CONNECTION TYPE
IRH1	SPACE-RAY	LTU-125-40	4" ϕ	125,000 BTUH	NAT	7/8" FLARE - 2" S.S. FLEX INCLUDED 1/2" GAS COCK INCLUDED
IRH2	SPACE-RAY	LTU-125-40	4" ϕ	125,000 BTUH	NAT	7/8" FLARE - 2" S.S. FLEX INCLUDED 1/2" GAS COCK INCLUDED

EXHAUST FAN SCHEDULE

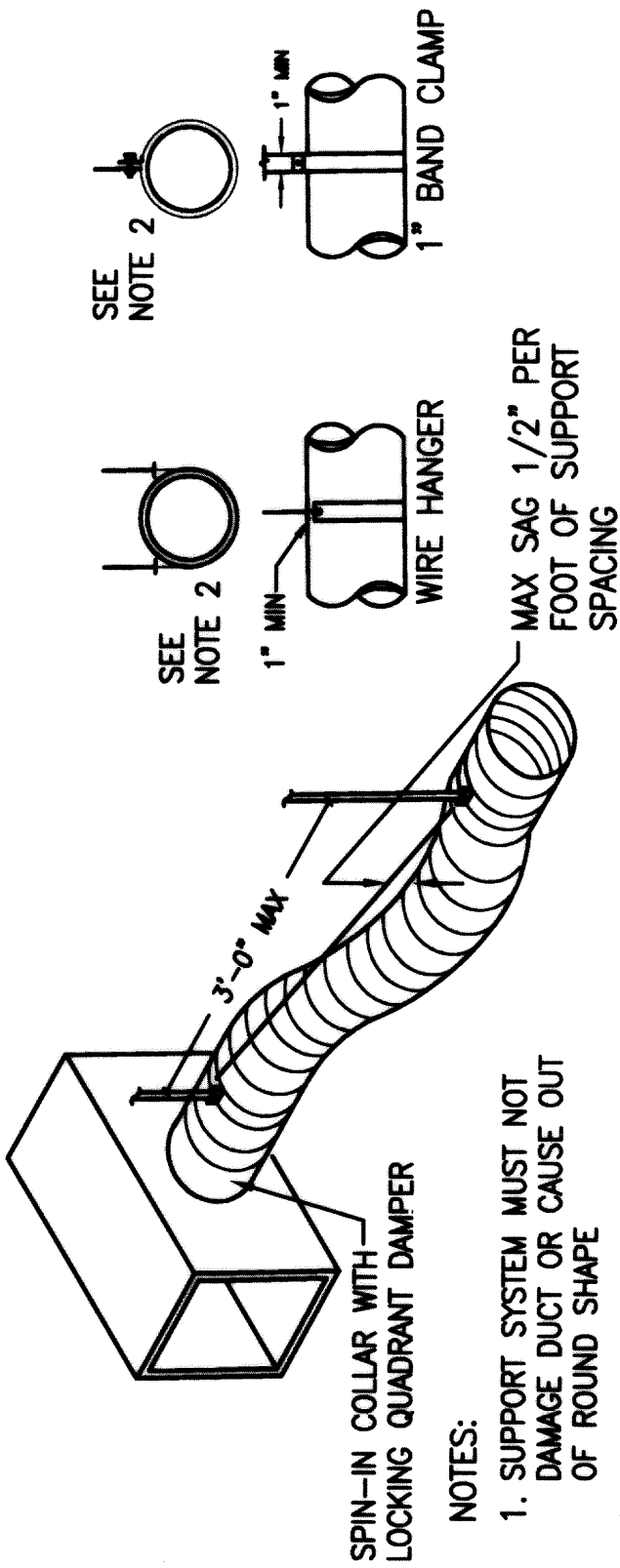
ITEM	CAPACITY (CFM)	EXTERNAL STATIC PRESS.	TYPE	DRIVE	RPM (MAXIMUM)	SONES (MAXIMUM)	HP/VOLTAGE	REMARKS
EF1	3,300	0.30	SIDEWALL PROPELLER	BELT	961	19	3/4/208V, 1PH	1.5
EF2	100	0.125	CEILING CABINET	DIRECT			120V, 1ϕ	2.34

- NOTE:
- PROVIDE WITH WALL COLLAR, EXHAUST GRAVITY DAMPER, MOTOR SIDE GUARD, WEATHERHOOD WITH BIRD SCREEN. SEE DETAIL THIS DRAWING.
 - PROVIDE WITH BACKDRAFT DAMPER, ACOUSTIC INSULATION, INTERNAL ELEC. DISCONNECT SWITCH, ELEC. ACCESS COVER, GALVANIZED STEEL HOUSING WITH MOUNTING BRACKETS.
 - PROVIDE ROUND DUCT ADAPTER.
 - OPERATE WITH TOILET LIGHT.
 - TO OPERATE WITH WALL THERMOSTAT



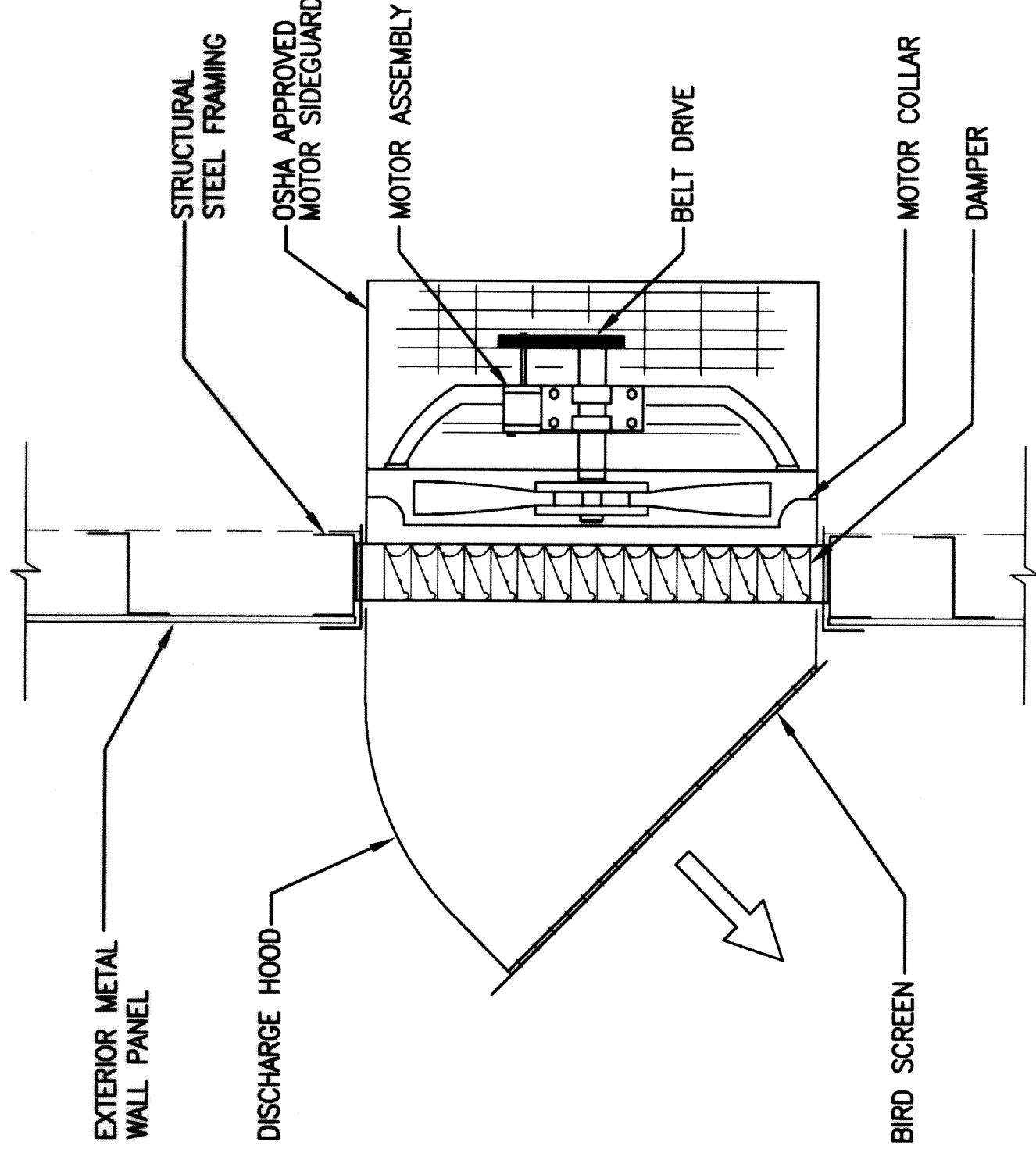
DIFFUSER CONNECTION

SCALE: NTS



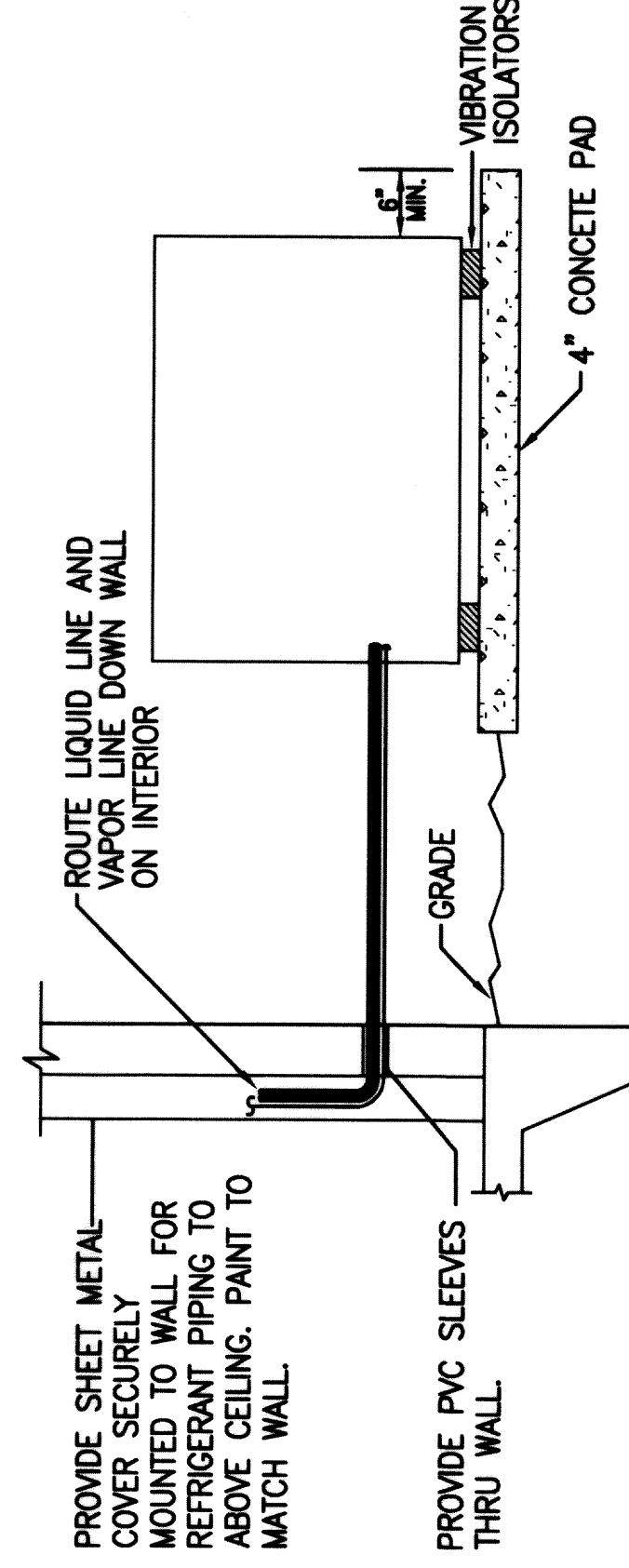
STRAIGHT SECTION FLEXIBLE DUCT

SCALE: NTS



SIDEWALL EXHAUST FAN

SCALE: NTS



HP1 OUTDOOR UNIT INSTALLATION

SCALE: NTS

SYMBOL	DESCRIPTION	DATE	APP.

JUNE 2009

M2

IF SHEET IS LESS THAN (30" x 42") IT IS A REDUCED PRINT; SCALE ACCORDINGLY

BES ARCHITECTS ENGINEERS INCORPORATED 170 BOYD STREET, SUITE 200, 2007-2009, 943-502-2004 ARCH. & ENGR. SEAL	NATURAL RESOURCES & ENVIRONMENTAL AFFAIRS SATISFACTORY TO DATE <i>Signatures</i>	P.W. DWG. NO. 18800 DRAWN BY JMA CHECKED BY R. VAUGHAN SUPERVISOR RLD/LOACH APPROVED <i>Signature</i>	DEPARTMENT OF THE NAVY MARINE CORPS AIR STATION BEAUFORT, E. C.
	SAFETY DEPARTMENT SATISFACTORY TO DATE <i>Signature</i>	FIRE DEPARTMENT SATISFACTORY TO DATE <i>Signature</i>	INTEGRATED SERVICES SATISFACTORY TO DATE
ARCH. & ENGR. FIRM		DATE 7-21-09 SCALE AS NOTED	SHEET 18 OF 27

