

ZONE IDENTIFICATION				IMC 2009 - NOTE (2)										
HVAC UNIT DESIGNATION	ROOM NUMBER	ROOM NAME	OCCUPANCY CLASSIFICATION	AREA (SF)	TABLE 403.3 PEOPLE OUTDOOR AIR RATE (CFM/PERSON)	TABLE 403.3 AREA OUTDOOR AIR RATE (CFM/SF)	TABLE 103.3 OCCUPANT DENSITY (#/1000 SF)	BREATHING ZONE OUTDOOR AIRFLOW Vbz (CFM)	TABLE 403.3.1.2 ZONE AIR DISTRIBUTION Ez	ZONE OUTDOOR AIRFLOW =Vbz/Ez	TABLE 403.3.2.3.2 SYSTEM VENTILATION EFFICIENCY Ev	OUTDOOR AIR INTAKE FLOW Vot (CFM)	ZONE PRIMARY AIRFLOW FRACTION Vpz (CFM) (NOTE 1)	PRIMARY OUTDOOR AIR FRACTION Zp=Voz/Vpz
HC-1	N/A	ELECTRICAL AND CONTROL ROOM	ELECTRICAL EQUIPMENT ROOMS	400	0	0.06	0	24.00	0.8	30.00	1	30	3300	0.01
TOTAL				400				24		30		30	3,300	

NOTES:
(1) THIS VALUE IS THE SUPPLY AIR (CFM) INDICATED BY THE LOAD CALCULATION PROGRAM.
(2) CALCULATIONS ARE PER ASHRAE 62.1-2007 AND PER 2009 IMC 403.3.

LOUVER SCHEDULE										
MARK	MANUFACTURER	MODEL	AIRFLOW (CFM)	MAX. A.P.D. (inWC)	SIZE (W"xH")	MIN. FREE AREA (SQ. FT.)	TYPE	MATERIAL	SERVICE	NOTES
L-1	RUSKIN	LM6375D	14,500	0.1	72x60	16.50	ADJUSTABLE DRAINABLE BLADE	GALV. STEEL	EXHAUST FAN EF-1	(1)(2)(4)
L-2	RUSKIN	LM6375D	14,500	0.1	72x60	16.50	ADJUSTABLE DRAINABLE BLADE	GALV. STEEL	EXHAUST FAN EF-1	(1)(2)(4)
L-3	RUSKIN	LM6375D	14,500	0.1	54x84	17.40	ADJUSTABLE DRAINABLE BLADE	GALV. STEEL	EXHAUST FAN EF-2	(1)(3)(4)
L-4	RUSKIN	LM6375D	14,500	0.1	54x84	17.40	ADJUSTABLE DRAINABLE BLADE	GALV. STEEL	EXHAUST FAN EF-2	(1)(3)(4)

NOTES:
(1) PROVIDE FACTORY PRIMER, PAINT LOUVER TO MATCH ADJACENT SURFACE.
(2) PROVIDE 120V MOTORIZED DAMPER INTERLOCKED WITH EF-1
(3) PROVIDE 120V MOTORIZED DAMPER INTERLOCKED WITH EF-2
(4) PROVIDE 1/4" MESH BIRD SCREEN

SEQUENCE OF OPERATION - BLOWER ROOM EXHAUST FANS

- EXHAUST FAN EF-1 AND DAMPER ACTUATORS FOR LOUVERS L-1 AND L-2 SHALL BE CONTROLLED BY THE THERMOSTAT LABELED Tef-1. SET Tef-1 TO 80 DEGREES.
- EXHAUST FAN EF-2 AND DAMPER ACTUATORS FOR LOUVERS L-3 AND L-4 SHALL BE CONTROLLED BY THE THERMOSTAT LABELED Tef-2. SET Tef-2 TO 90 DEGREES.
- MONTHLY OPERATOR DUTY - THE BLOWER ROOM OPERATOR SHALL ON A MONTHLY BASIS SWITCH THE EXHAUST FAN DUTY ASSIGNMENT (I.E. SWITCH THERMOSTAT SETTING) TO PREVENT OVER-USE OF EITHER EXHAUST FAN.

EXHAUST FAN SCHEDULE												
MARK	MANUFACTURER	MODEL	CFM	E.S.P. (in WC)	MOTOR HP	RPM	VOLT/PHASE	DRIVE	AREA SERVED	WEIGHT (LBS.)	TYPE	NOTES
EF-1	GREENHECK	SBS-3L48-75	29,000	0.500	7.5	656	460 / 3	BELT	BLOWER ROOM	892	WALL	(1) THRU (10)
EF-2	GREENHECK	SBS-3L48-75	29,000	0.500	7.5	656	460 / 3	BELT	BLOWER ROOM	892	WALL	(1) THRU (10)

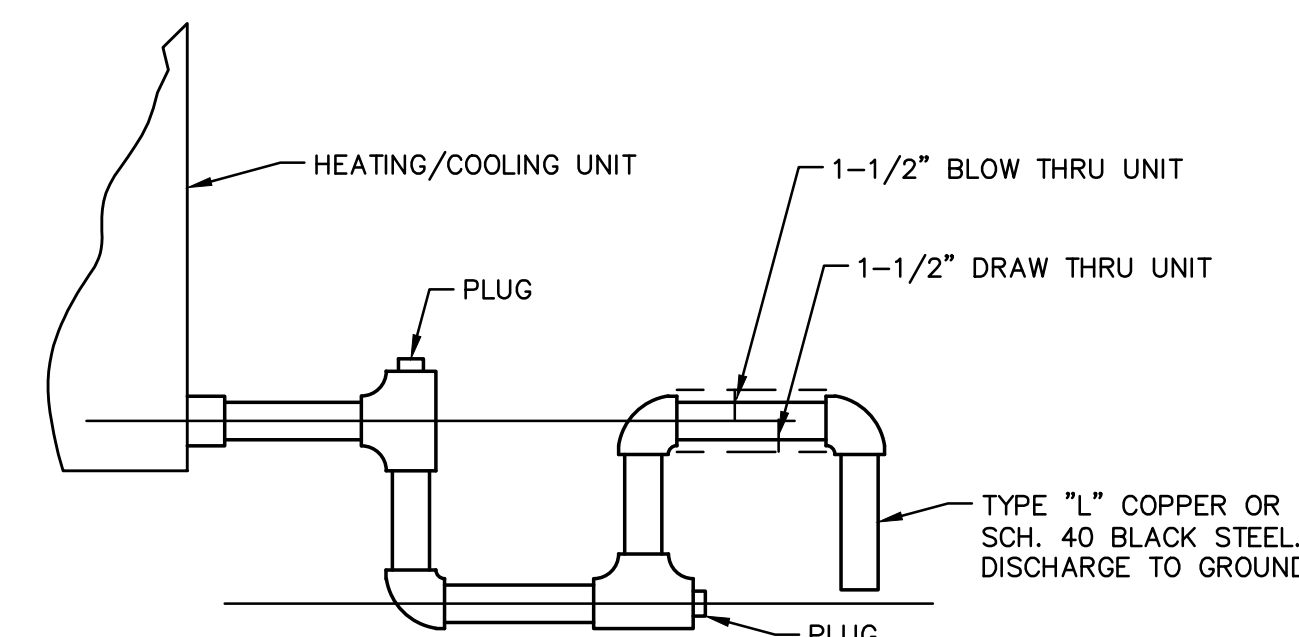
NOTES:
(1) NEMA PREMIUM EFFICIENT MOTOR
(2) MOTOR WITH THERMAL OVERLOAD
(3) UL/cUL 705 LISTED
(4) BEARINGS WITH GREASE FITTINGS
(5) VCD-20-PB 50X50 115V MOTORIZED DAMPER
(6) LONG WALL HOUSING, FLUSH INTERIOR, (1B-R-EXH), OSHA APPROVED GUARD - GALV
(7) GALVANIZED 90 DEG WEATHERHOOD W/ 1/4" MESH BIRDSCREEN
(8) DISCONNECT SWITCH (NEMA-1) - JUNCTION BOX MOUNTED & WIRED
(9) DAMPER GUARD
(10) CLOSURE ANGLES

AIR DISTRIBUTION SCHEDULE									
MARK	MANUFACTURER	MODEL	TYPE	FACE SIZE	NECK SIZE	COLOR	FRAME	NOTES	
A	TITUS	300RS	SUPPLY	42 X 20	AS INDICATED	WHITE	SURFACE	(1)	
B	TITUS	30RS	RETURN	20 X 36	AS INDICATED	WHITE	SURFACE	(1)	

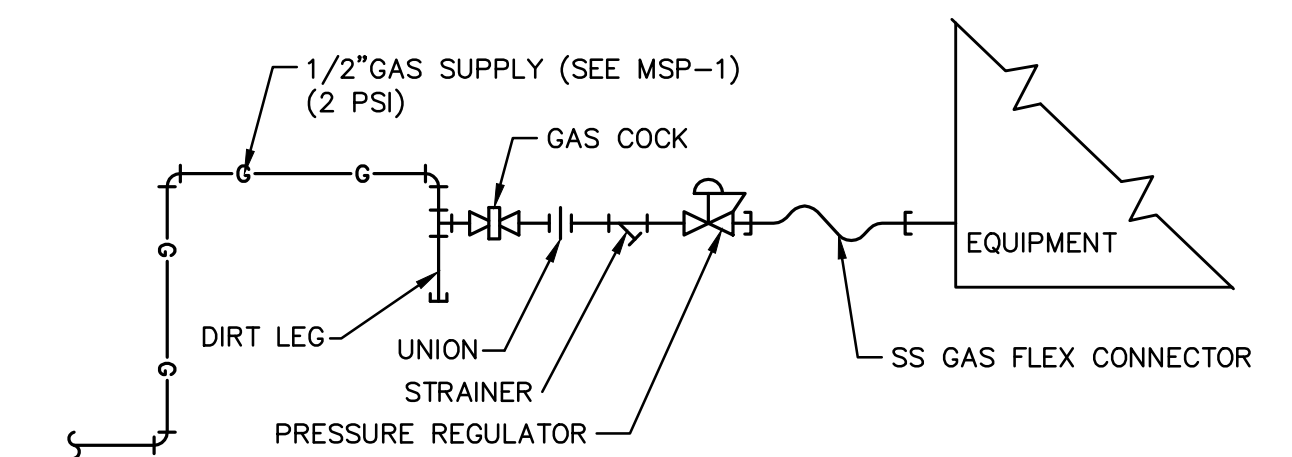
NOTES:
(1) OPPOSED BLADE DAMPER

HEATING/COOLING UNIT SCHEDULE	
MARK	HC-1
GENERAL DATA	
ELEVATION (FT)	5420
AREA SERVED	ELECTRICAL & CONTROL ROOM
TYPE	HORIZONTAL
MANUFACTURER	
MODEL	TRANE YHC092
EVAPORATOR FAN DATA	
AIRFLOW ACFM	3300
EXT. STATIC PRESS. (in WC)	0.8
DRIVE TYPE	DIRECT
FAN MOTOR (BHP)	1.45
OUTSIDE AIR CFM	
	450
HEATING SECTION DATA	
TOTAL OUTPUT CAP. (MBH)	73.0
GAS HEAT	
NOM. NAT. GAS INPUT (MBH)	120.0
ACTUAL GAS INPUT (MBH)	91.2
ELECTRIC HEAT	
ELECT. KW	N/A
NO. OF STAGES	N/A
COOLING DATA	
TOTAL CAPACITY (MBH)	84.50
SENSIBLE CAPACITY (MBH)	78.10
ENT. AIR TEMP (deg F DB/WB)	78/61
OUT. AIR TEMP (deg F DB)	95
ELECTRICAL DATA	
VOLTS/PHASE	460/3
FLA	18.0
MCA	19.8
UNIT WEIGHT (LBS)	
	1420
DIMENSIONS	
WIDTH (IN.)	53.250
LENGTH (IN.)	88.625
HEIGHT (IN.)	46.875
NOTES:	
	(1) THRU (8)

NOTES:
(1) PROVIDE STANDARD EVAPORATOR FAN MOTOR/DRIVE
(2) PROVIDE PROGRAMMABLE THERMOSTAT
(3) PROVIDE ECONOMIZER & BAROMETRIC RELIEF
(4) PROVIDE COIL HAIL GUARDS
(5) PROVIDE HINGED ACCESS DOORS
(6) LABEL OUTSIDE OF CABINET WITH UNIT NUMBER AND BUILDING AREA SERVED
(7) PROVIDE MERV 8 FILTERS
(8) PROVIDE RETURN AIR SMOKE DETECTOR



2 CONDENSATE TRAP DETAIL
NOT TO SCALE



1 GAS PIPING CONNECTION DETAIL
NOT TO SCALE

REVISIONS		
NO.	DATE	DESCRIPTION
1	06/21/2012	ISSUED FOR BUILDING PERMIT SUBMITTAL TO PPRBD (BLOWER BUILDING)
2	07/17/2012	ISSUED FOR CONSTRUCTION PER PPRBD BLDG PERMIT NO. I29081 (BLOWER BLDG)

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MECHANICAL DETAILS AND SCHEDULES	
BLOWER BUILDING	
HAROLD D. THOMPSON REGIONAL WATER RECLAMATION FACILITY LOWER FOUNTAIN METROPOLITAN SEWAGE DISPOSAL DISTRICT	
DRAWN: MK/MAM DESIGNED: MK CHECKED: MK DATE: 2012 PROJECT NO.: 20166.310 GMS FILE NO.: 2599	GMS, INC. CONSULTING ENGINEERS 611 N. WEBER, SUITE 300 COLORADO SPRINGS, COLORADO 80903
SHEET MBB-2 OF —	

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BASE DWG: G:\
PLOT STYLE FILE: 10500.ctb
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