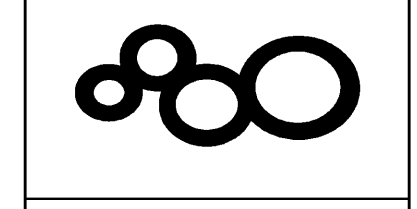


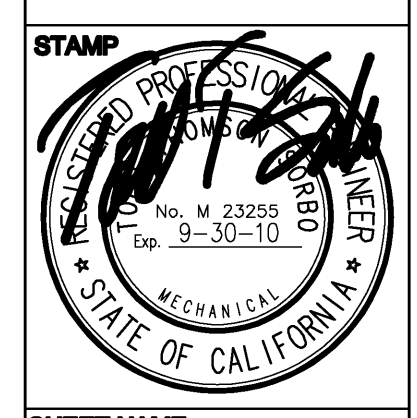
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ISSUED FOR	DATE
Pre-Schematic Design	07/14/2008
Schematic Design	07/28/2008
BID PK #1	10/02/2008
50% Program	10/24/2008
BID PK #1 80 CD	12/01/2008
BID PK #1 100 CD	02/16/2009
BID PK #2 100 CD	03/26/2009
100% CD	06/09/2009
CD 4	01/07/2010
COB 1	02/26/2010
COB 2	02/26/2010
CD 4	04/15/2010
RW PERMIT	05/05/2010
ASH008 RT	07/01/2010
ASH009	07/06/2010
ASH015	07/06/2010
ASH004	07/12/2010
ASH009A	07/16/2010
ASH010	08/13/2010
ASH011	08/27/2010
ASH020	08/29/2010
ASH021	11/05/2010
ASH018	11/17/2010
ASH026	12/16/2010

SANFORD CONSORTIUM FOR REGENERATIVE MEDICINE 2880 TORREY PINES SCENIC DRIVE LA JOLLA, CALIFORNIA 92037



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SHEET NAME:
PARTIAL MECHANICAL FIRST FLOOR PLAN - ZONE 1

DRAWN BY: *Author*

PROJECT #: 200728.000

SHEET NUMBER

M2211

- REMARKS:
- 1/2" RG & 1/4" RL UP TO 2ND FLOOR.
 - 3/4", 5/8", & 3/8" REFRIGERANT PIPE UP TO 2ND FLOOR.
 - 3/4" RG & 3/8" RL UP TO 2ND FLOOR.
 - 12" DOWN TO 6" FUME HOOD, BALANCE TO 785 CFM.
 - FOR REFRIGERANT DETECTION SEE THE FOLLOWING:
 - REF 236
 - BAPI BA/BS2-WT WIRELESS TEMPERATURE SENSOR PROVIDED BY PHENIXA CONTROLS. MOUNT SENSOR ON TACK BOARD. REFER TO ARCHITECTURAL FOR MOUNTING DETAIL.

CHILLER VENTILATION CALCULATION

MINIMUM VENTILATION CALCULATION

PER CALIFORNIA MECHANICAL CODE 1108.2.2 AND 1108.2.3, THE MINIMUM MECHANICAL VENTILATION SHALL EXHAUST THE LARGER OF THE FOLLOWING:

1108.2.2 CHILLER ROOM AREA = 1,796 SQFT
MIN. VENTILATION RATE = 0.5 CFM/SQFT
MIN. AIRFLOW = 1,796 SF * 0.5 CFM/SQFT
MINIMUM AIRFLOW = 898 CFM

1108.2.3 HEAT OUTPUT OF (2) 40 HP PUMPS = 26,000 BTUH
HEAT OUTPUT OF (1) 7-1/2 HP PUMP = 3,400 BTUH
HEAT OUTPUT OF (2) TRANE CHILLERS = 4,100 BTUH
TOTAL HEAT OUTPUT OF EQUIPMENT = 33,500 BTUH
TEMPERATURE LIMIT RISE = 19°F
Q = 33,500 BTUH ÷ CFM*1.08*19°F
MINIMUM AIRFLOW = 1,632 CFM

MINIMUM AIRFLOW RATES BASED ON THE GREATER OF THE (2) CODE CRITERIA SHALL BE 1,632 CFM

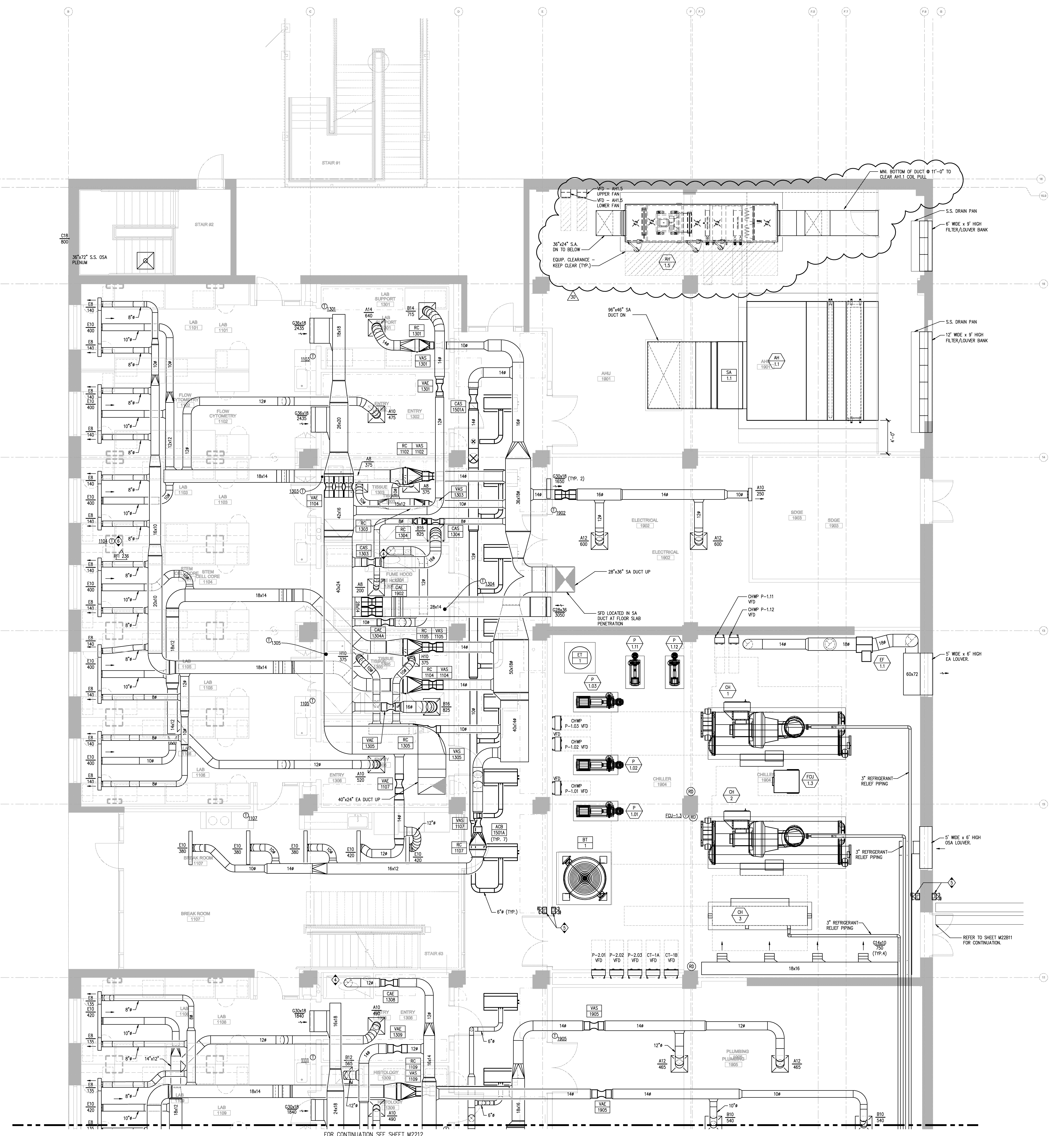
ACTUAL MINIMUM AIRFLOW BEING PROVIDED = 1,640 CFM

EMERGENCY REFRIGERANT PURGE VENTILATION CALCULATION

PER CALIFORNIA MECHANICAL CODE 1108.2.4, UPON ACTIVATION OF THE REFRIGERANT DETECTOR REQUIRED IN SECTION 1070.4, THE MECHANICAL VENTILATION SYSTEM SHALL EXHAUST AIR FROM THE MACHINERY ROOM IN THE FOLLOWING QUANTITY:

Q = AIR-FLOW RATE, CUBIC FEET PER MINUTE (CFM)
Q = REFRIGERANT MASS IN LARGEST SYSTEM, LBS.
FOR TRANE CHILLER R-123, Q = 450 LBS.
Q=100/50 LBS. = 2,000 CFM

EMERGENCY PURGE VENTILATION RATE PER CODE SHALL BE 2,016 CFM
ACTUAL PURGE AIRFLOW BEING PROVIDED = 3,000 CFM



PARTIAL MECHANICAL FIRST FLOOR PLAN - ZONE 1

SCALE
1/4" = 1'-0"

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