

ASHRAE 62.1 VENTILATION SUMMARY

UNIT	OCCUPANCY CATEGORY	PEOPLE OUTDOOR AIR RATE CFM (L/S) / OCCUPANT	NUMBER OF OCCUPANTS	OCCUPANT AIR VOL. CFM (L/S)	AREA OF SPACE SQ. FT.	AREA OUTDOOR AIR RATE CFM (L/S) / SQ. FT.	**OCCUPIED MIN. O/A CFM (L/S)	***COMBINED OUTDOOR AIR CFM (L/S)
F-1	ASSEMBLY	5 CFM (2) / OCCUPANT	80	400 CFM (189 L/S)	1566	0.06 CFM (.03) / SQ. FT.	94 CFM (45 L/S)	494 CFM (233 L/S)
	ASSEMBLY	5 CFM (2) / OCCUPANT	25	125 CFM (59 L/S)	570	0.06 CFM (.03) / SQ. FT.	34 CFM (16 L/S)	159 CFM (75 L/S)
	COMPUTER LAB	10 CFM (2) / OCCUPANT	8	80 CFM (37 L/S)	386	0.12 CFM (.08) / SQ. FT.	46 CFM (22 L/S)	126 CFM (59 L/S)
	CAFETERIA	7.5 CFM (3.5) / OCCUPANT	2	15 CFM (7 L/S)	644	0.18 CFM (.08) / SQ. FT.	116 CFM (55 L/S)	131 CFM (62 L/S)
TOTAL							290 CFM (137 L/S)	910 CFM (430 L/S)
F-2	ASSEMBLY	5 CFM (2) / OCCUPANT	50	250 CFM (118 L/S)	865	0.06 CFM (.03) / SQ. FT.	52 CFM (25 L/S)	302 CFM (142 L/S)
	OFFICE	5 CFM (2) / OCCUPANT	2	10 CFM (5 L/S)	219	0.06 CFM (.03) / SQ. FT.	13 CFM (6 L/S)	23 CFM (11 L/S)
TOTAL							181 CFM (85 L/S)	456 CFM (215 L/S)
AHU-1	AUDITORIUM	5 CFM (2) / OCCUPANT	400	2000 CFM (944 L/S)	5109	0.06 CFM (.03) / SQ. FT.	307 CFM (145 L/S)	2307 CFM (1088 L/S)
TOTAL							307 CFM (145 L/S)	2307 CFM (1088 L/S)

NOTES: *OCCUPANT LOADS BASED ON ASHRAE STANDARD 62.1-2004, VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY.
 **THIS COLUMN INDICATES MINIMUM VENTILATION AIR VOLUME IF OUTSIDE AIR DAMPER IS CONTROLLED BY A CO2 SENSOR.
 ***INFORMATION PROVIDED FOR REFERENCE ONLY.

DIFFUSER/GRILLE/LOUVRE SCHEDULE:

TYPE	MAKE	MODEL	SERVICE	DESCRIPTION
A	PRICE	LBP	SUPPLY	SURFACE MOUNTED, LBP15A/1000/B12, SIZES ON DRAWINGS
B	PRICE	SERIES 80	TRANSFER/EXHAUST/RETURN	SURFACE MOUNTED, 80/F/A/B12, SIZES ON DRAWINGS
C	PRICE	ATGH	TRANSFER	DOOR MOUNTED, ATGH/BF/B15, SIZES ON DRAWINGS
D	PRICE	520	SUPPLY	DUCT MOUNTED, 520/F/L/A/B12, SIZES ON DRAWINGS
E	PRICE	SCD	SUPPLY	SURFACE MOUNTED, SCD/3/31/B12, SIZES ON DRAWINGS
F	PRICE	520	SUPPLY	SURFACE MOUNTED, 520/F/L/A/B12, SIZES ON DRAWINGS
G	PRICE	530	EXHAUST	SURFACE MOUNTED, 530/F/L/A/B12, SIZES ON DRAWINGS
H	PRICE	96	RETURN	SURFACE MOUNTED, 96/L/A/B12, SIZES ON DRAWINGS

* ALL DIFFUSERS INSTALLED IN DRYWALL CEILINGS TO HAVE INTEGRAL DAMPERS. REFER TO ARCHITECTURAL FOR FINAL CEILING TYPES

CONDENSING UNIT SCHEDULE

NO.	MAKE	MODEL	REFRIG. CAPACITY KW (MBH)	COMP. MOTOR (EACH) RLA LRA	COND. MOTOR (EACH) FLA LRA	SUPPLY PROVIDED BY DIV.	INSTALLED BY DIV.	WRED BY DIV.	REFRIGERANT TYPE
CU-1 & CU-1B	LENNOX	13AC0-036	21 (72)	14.4 77.0	1.0 1.9	15	15	16	R-22
CU-2 & CU-2B	LENNOX	13AC0-036	21 (72)	14.4 77.0	1.0 1.9	15	15	16	R-22

* COORDINATE ALL VOLTAGES WITH DIVISION 16 * CU-1 & CU-1B TO BE ENGAGED SIMULTANEOUSLY
 * CU-2 & CU-2B TO BE ENGAGED SIMULTANEOUSLY

FURNACE SCHEDULE

NO.	LOCATION	MAKE	MODEL	AIR L/S (CFM)	EXT. STATIC PRESSURE PA (IN)	MOTOR KW (HP)	FILTER THICKNESS MM (IN)	HEAT CAPACITY KW (MBH)	HEATING MEDIUM	COOL CAPACITY KW (MBH)	SUPPLY PROVIDED BY DIV.	INSTALLED BY DIV.	WRED BY DIV.
F-1	BASEMENT MECH. ROOM	LENNOX	G24M4/6	1130 (2400)	49.8 (.20)	.55 (3/4)	25 (1")	29 (100)	NATURAL GAS	21 (72)	15	15	16
F-2	BASEMENT MECH. ROOM	LENNOX	G24M4/6	1130 (2400)	49.8 (.20)	.55 (3/4)	25 (1")	29 (100)	NATURAL GAS	21 (72)	15	15	16

* UNIT TO HAVE SPARE SET OF FILTERS * UNIT TO HAVE SIDEWALL RETURN OPTION C/W ECONOMIZER LENNOX MODEL #EMD14M-65 AND CONTROLS PACKAGE.
 * COORDINATE ALL VOLTAGES WITH DIVISION 16 * C/W CO2 SENSOR * C/W STAINLESS STEEL HEAT EXCHANGER

AIR HANDLING UNIT SCHEDULE

NO.	MAKE	MODEL	AIR L/S (CFM)	EXT. STATIC PRESSURE PA (IN)	MOTOR KW (HP)	FILTER THICKNESS MM (IN)	HEATING COIL (Y/N)	HEATING MEDIUM	HEATING CAPACITY KW (MBH)	COOLING CAPACITY KW (MBH)	TURN DOWN RATIO	ECONOMIZER	REFRIGERANT TYPE	UNIT ACCESSORIES
AHU-1	ENGINEERED AIR	FWB182	3394 (7200)	124.5 (.5)	5.59 (7.5)	50 (2")	Y	NATURAL GAS	132 (450)	63 (216)	15:1	YES	R-22	HOUSEKEEPING PAD & STAND BY STRUCTURAL

* COORDINATE ALL VOLTAGES WITH DIVISION 16 * C/W CO2 SENSOR * REFER TO SEQUENCE OF OPERATIONS IN SPEC FOR CONTROL * C/W STAINLESS STEEL HEAT EXCHANGER

FAN SCHEDULE

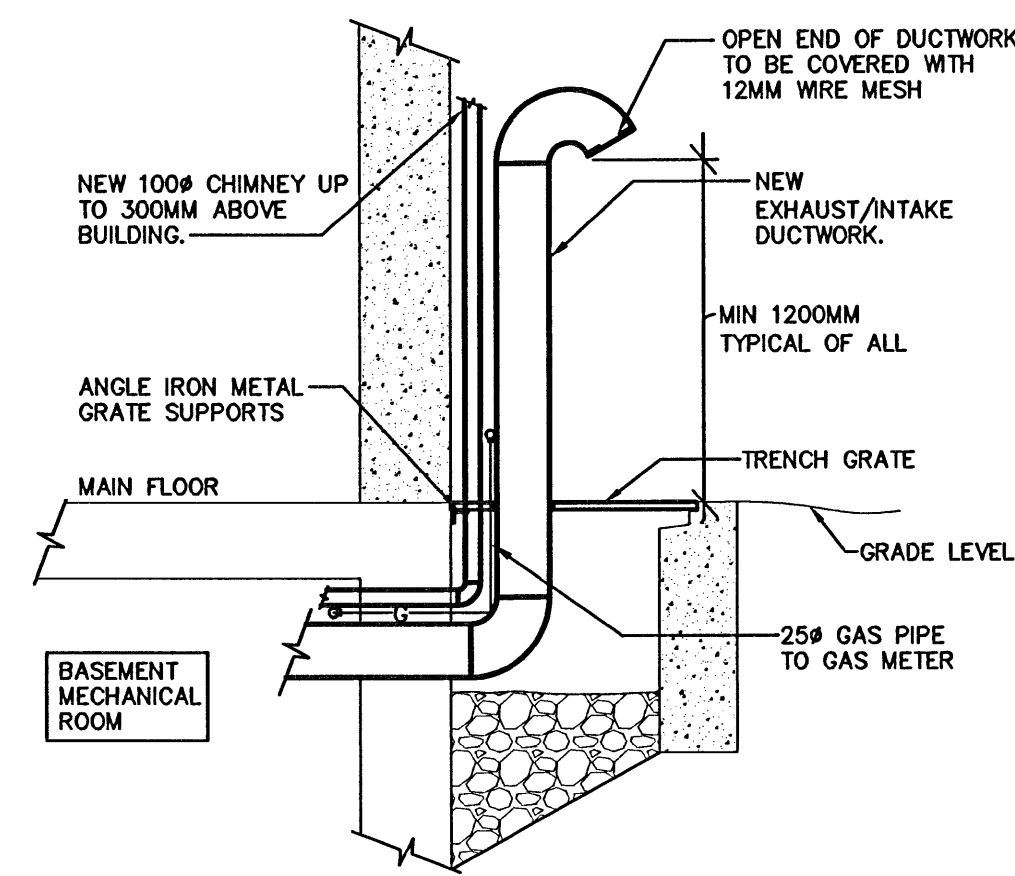
NO.	LOCATION	MAKE	MODEL	AIR L/S (CFM) 70°F	STATIC PA (IN H2O)	MOTOR HP (kW)	REMARKS
EF-1	ATTIC SPACE	GREENHECK	CSP-A290	203 (430)	124.5 (0.5)	FRAC	C/W 1 HR ROTARY DIAL TIMER SUPPLIED AND INSTALLED BY DIVISION 16
EF-2	ATTIC SPACE	GREENHECK	CSP-A780	248 (525)	124.5 (0.5)	FRAC	C/W 24 HR / 7 DAY PROGRAMMABLE TIMER SUPPLIED AND INSTALLED BY DIVISION 16
EF-3	CRAWLSPACE	GREENHECK	CSP-B150	35 (75)	124.5 (0.5)	FRAC	C/W HUMIDISTAT CONTROL
CF-1	GYM	CANARM	CP-36	-	-	FRAC	C/W VARIABLE SPEED SWITCH MC-3 SUPPLIED BY DIV. 15 & INSTALLED BY DIV. 16

* COORDINATE ALL VOLTAGES WITH DIVISION 16

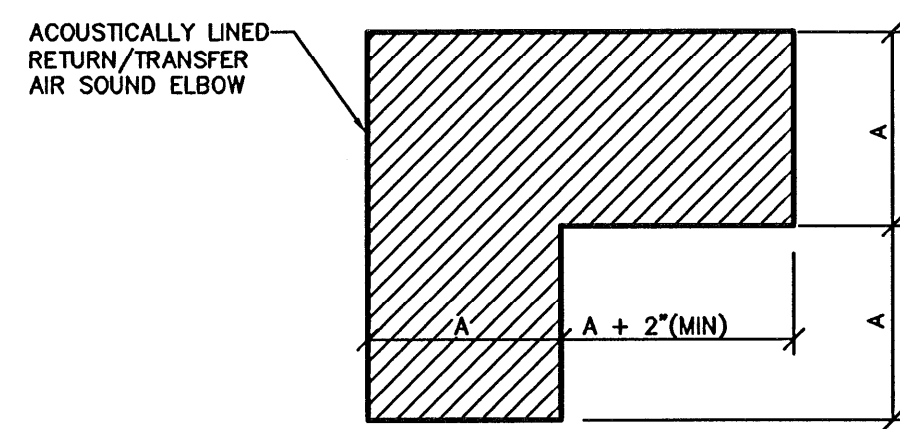
PUMP SCHEDULE

NO.	SERVICE	LOCATION	MAKE	MODEL	SIZE MM (IN)	CAPACITY L/S (GPM)	HEAD M (FT.)	MOTOR KW (HP)	SPEED RPM	REMARK
P-1	WADING POOL	PUMP HOUSE	ARMSTRONG	4300	38 (2")	10 (160)	9.75 (32)	2.2 (3)	1800	BRONZE FITTED
P-2	WEEPING TILE	CRAWLSPACE	BARNES	BP-314	50 (2")	1.58 (25)	8 (25)	.25 (1/3)	1750	C/W FLOAT ARM
P-3	RECIRC.	MECH. ROOM	ARMSTRONG	ASTRO 50B	-	0.83 (10)	4 (13)	FRAC.	3000	REFER TO DRAINING FOR LOCATION
P-4	PUMPED CONDENSATE LINE	SEE DRAWING	LITTLE GIANT	EC-250	-	0.125 (2)	0.6 (2)	FRAC.	-	REFER TO DRAINING FOR LOCATION

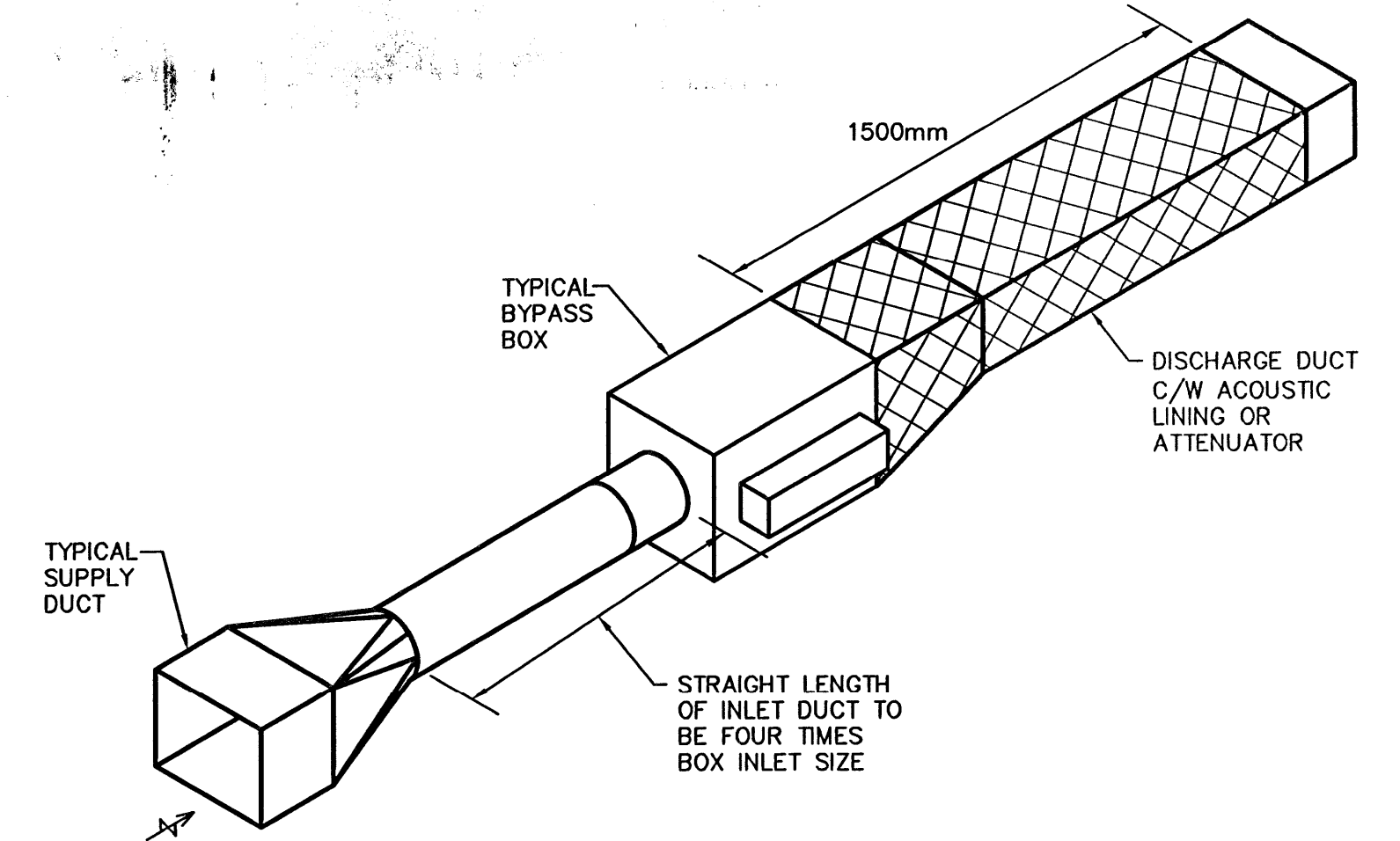
* COORDINATE ALL VOLTAGES WITH DIVISION 16



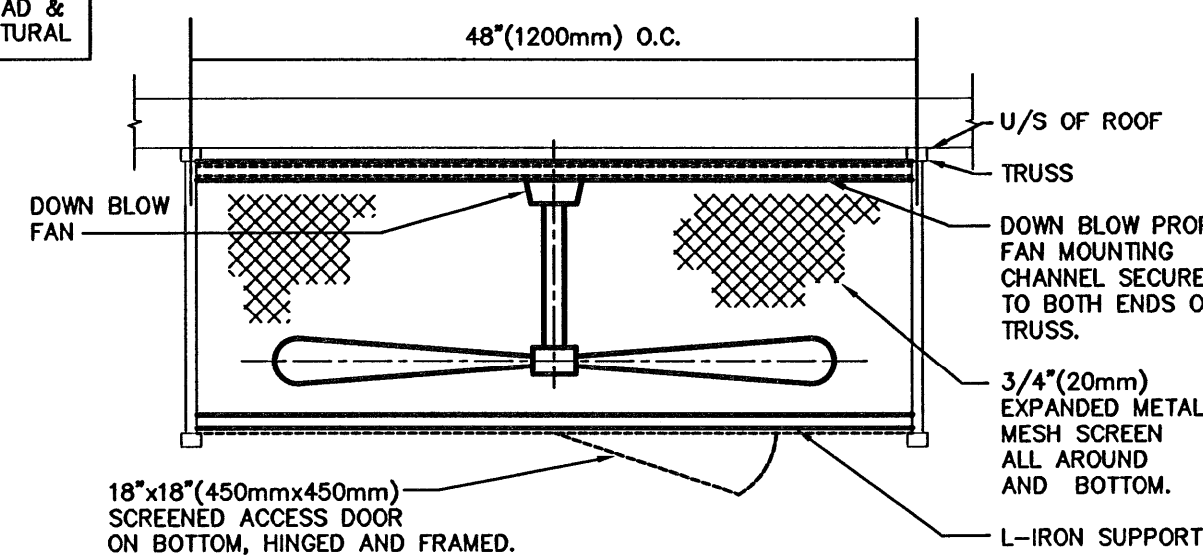
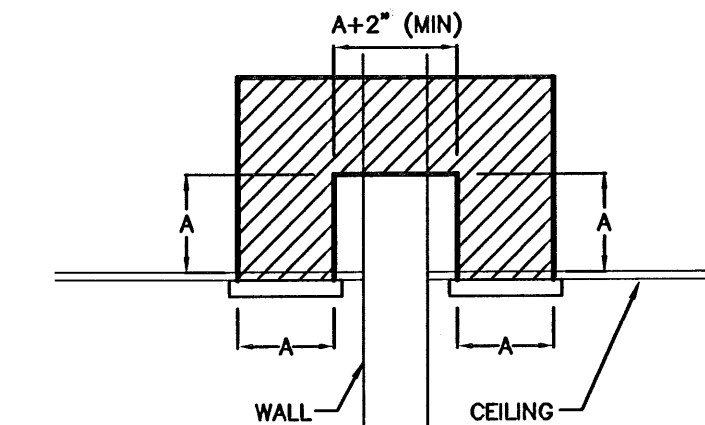
1 BASEMENT MECHANICAL DUCTWORK DETAIL
 SCALE: N.T.S.



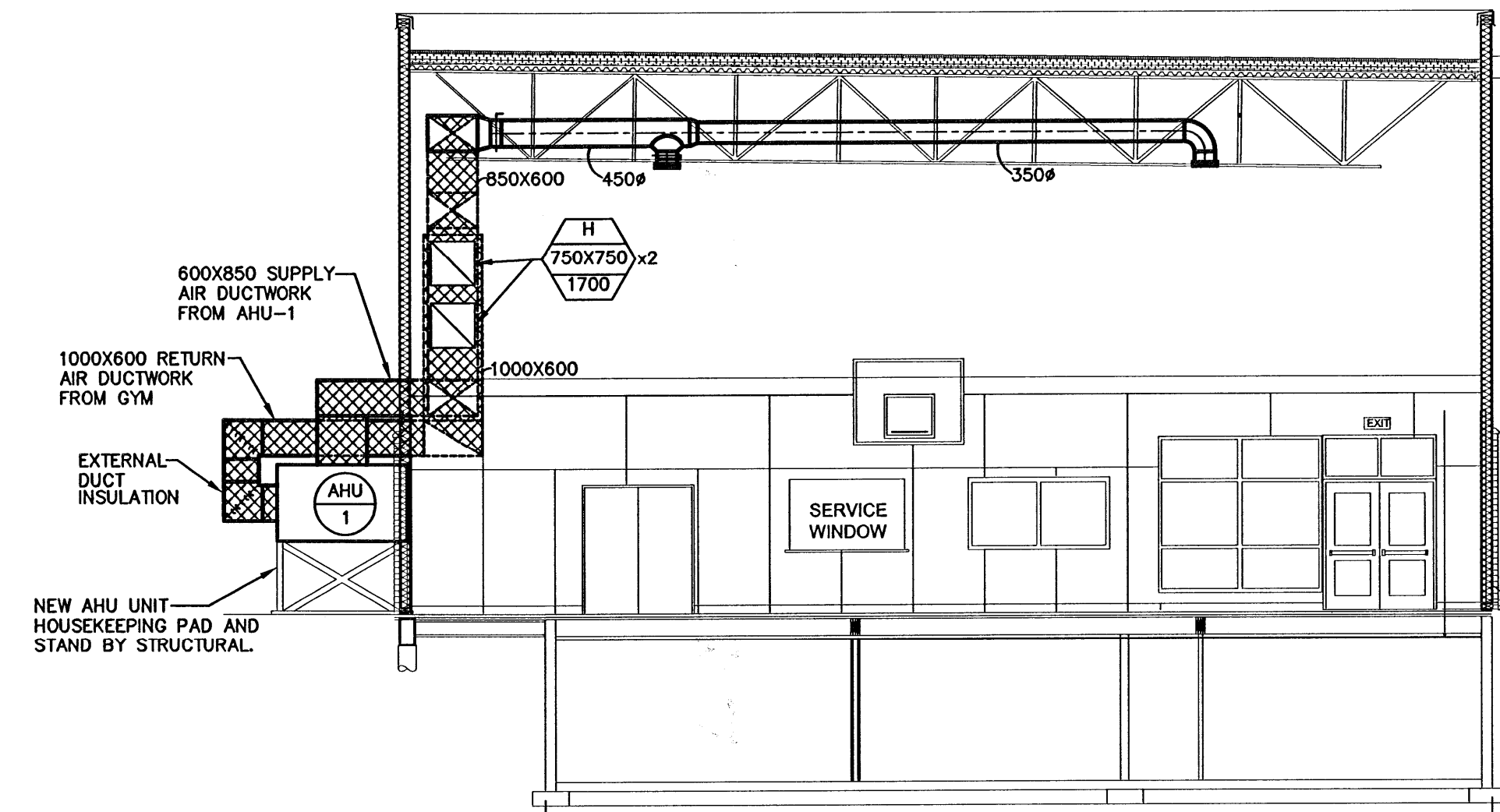
2 TRANSFER AIR DETAIL
 SCALE: N.T.S.



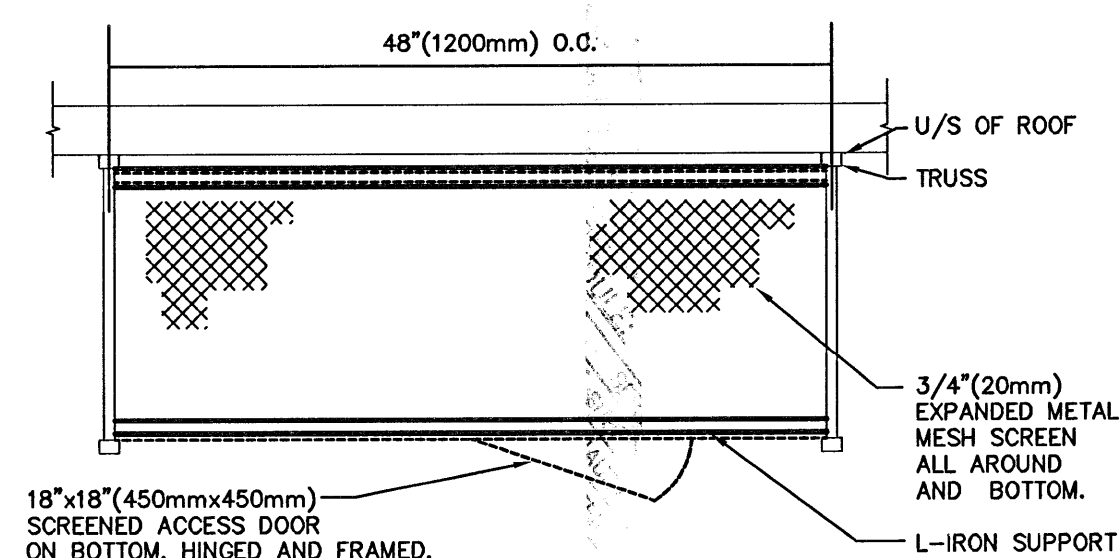
3 VAV BOX DETAIL
 SCALE: N.T.S.



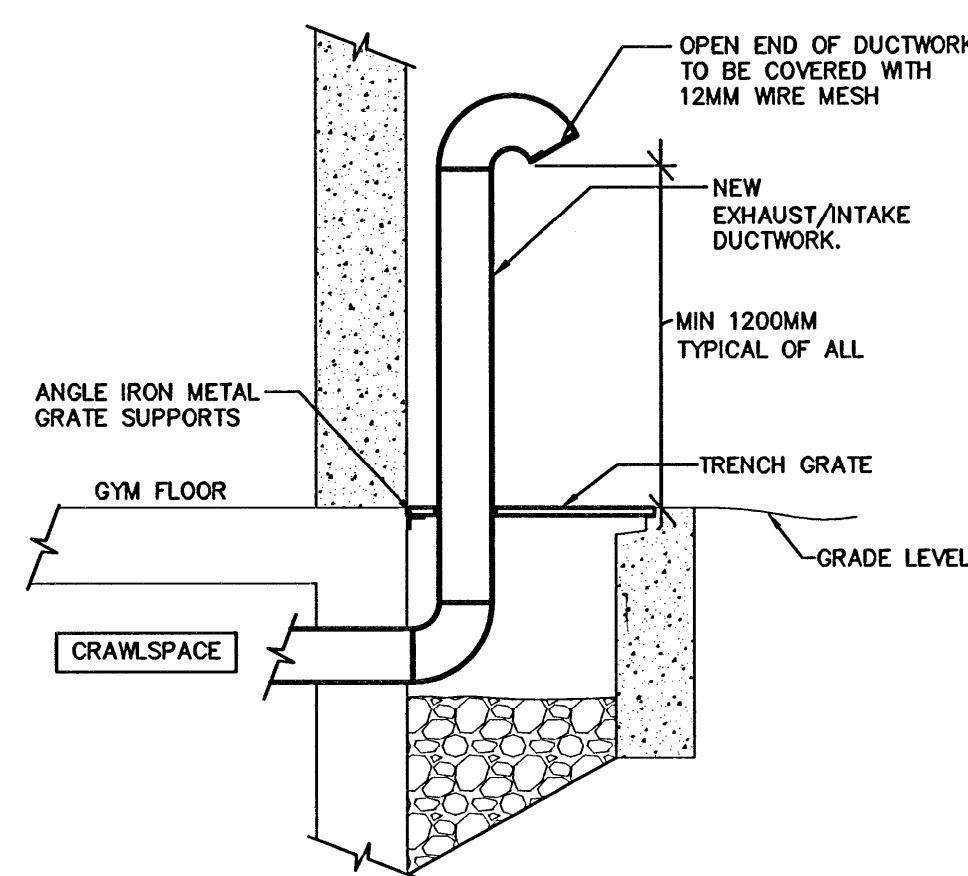
4 CEILING FAN CAGE DETAIL
 SCALE: N.T.S.



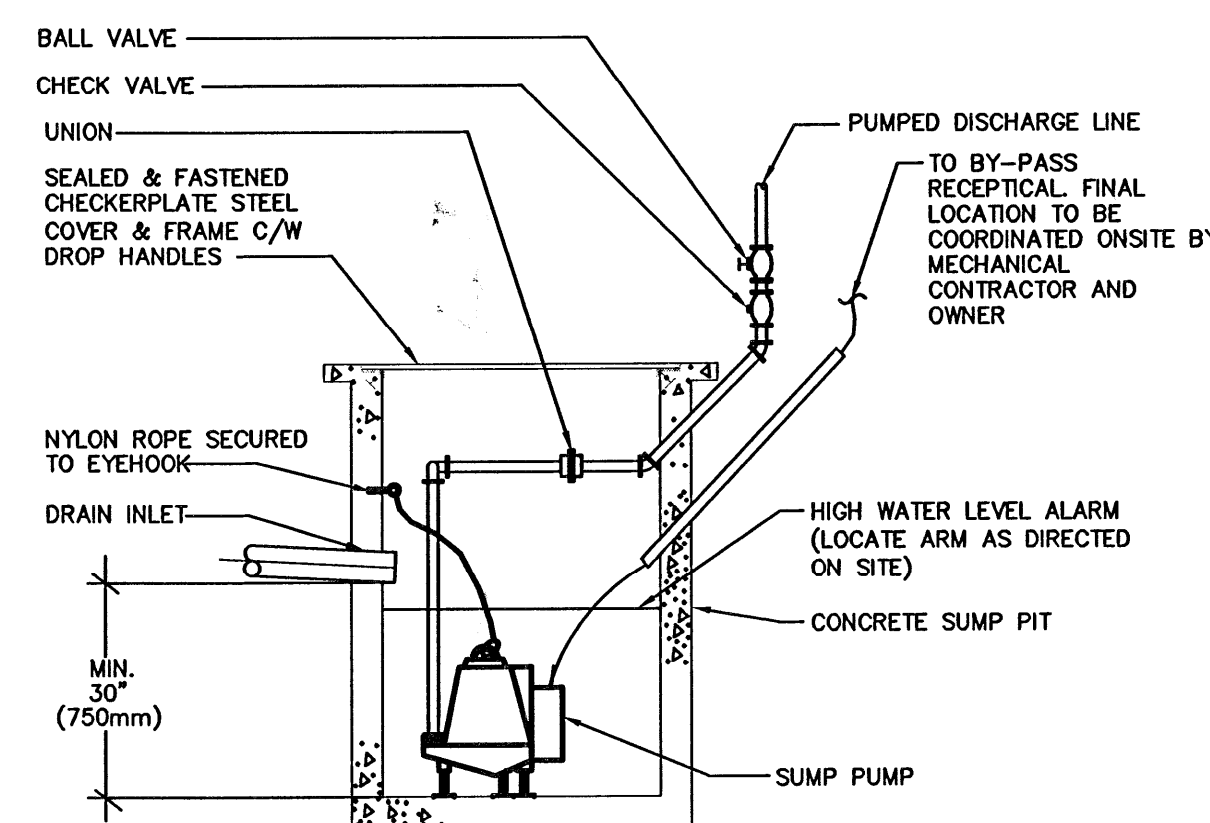
5 BUILDING SECTION
 SCALE: N.T.S.



6 CEILING CAGE DETAIL
 SCALE: N.T.S.



7 CRAWLSPACE VENTILATION DETAIL
 SCALE: N.T.S.



8 WEEPING TILE PIT DETAIL
 SCALE: N.T.S.

3 ISSUED FOR TENDER SR 2007.11.14
 2 ISSUED FOR 100% REVIEW DG 2007.07.06
 1 ISSUED FOR 99% REVIEW DG 2007.06.29
 revisions

This drawing must not be scaled.
 The general Contractor must verify all dimensions, details and levels prior to commencement of work. All errors and omissions must be reported immediately to the Architect.
 Variations and modifications to work shown on this drawing shall not be carried out without written permission from the Architect.
 This drawing is the exclusive property of the Architect and cannot be reproduced without written permission of the Architect. Reproduction must bear the name of the Architect. Copyright © 2006.

engineers

APCCM
 Certificate of Authorization
 MCW/AGE Consulting Professional Engineers
 No. 589 Expiry: April 30, 2008

MCW / AGE
 Consulting Professional Engineers
 210-1621 Wellington Avenue
 Winnipeg, Manitoba R2H 0C4
 Phone: (204) 779-2200 Fax: (204) 779-1119
 E-Mail: mcw_age@mcw-ags.com

architect
HAROLD FUNK ARCHITECT INC.

1320-55 Donald Street
 Winnipeg, Manitoba
 Canada R3C 1J8
 Tel: 204 943 5087
 Fax: 204 943 9231
 E-mail: hfunkarchitects.net

project
VALOUR COMMUNITY CENTRE GYMNASIUM ADDITION AND REVOLUTIONS

715 Telfer St. North, Winnipeg, Manitoba

sheet title
MECHANICAL SPECIFICATION AND DETAILS

project no. 5603
 scale: AS SHOWN
 drawn by: BK
 approved by: SS
 date July 6, 2007

sheet no.

M-4