

ASHRAE 62.1 VENTILATION SUMMARY

UNIT	OCCUPANCY CATEGORY	PEOPLE / OCCUPANT	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 (.06) / 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 FLA LRA	COND. MOTOR (EACH) RLA LRA FLA LRA	SUPPLY PROVIDED BY DIV.	INSTALLED BY DIV.	WIRED BY DIV.	REFRIGERANT TYPE
CU-1 & CU-1B	LENNOX	13AC0-036	21 (72)	14.4 77.0 1.0 1.9	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	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 I/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.	WIRED 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	FWEA184	1394 (7100)	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

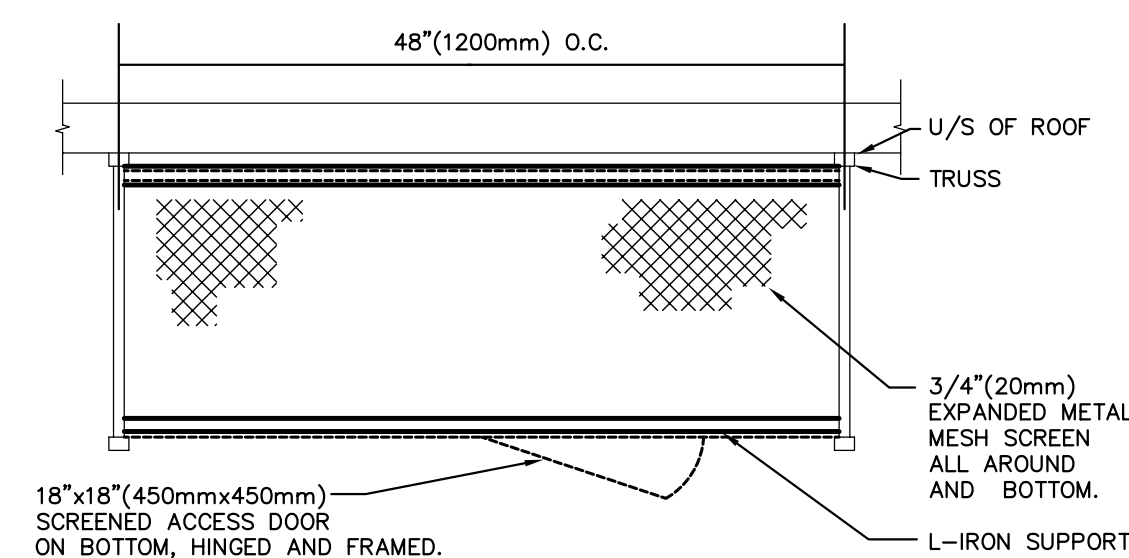
NO.	LOCATION	MAKE	MODEL	AIR L/S (CFM) 70°F	STATIC PA (IN H2O)	MOTOR HP (kw)	REMARKS
EF-1	ATTIC SPACE	GREENHECK	CSP-A290	203 (430)	124.5 (0.5)	FRAC	C/W 1 HR ROTARY DIAL TIMER SUPPLIED AND INSTALLED BY DIVISION 16
EF-2	ATTIC SPACE	GREENHECK	CSP-A780	248 (525)	124.5 (0.5)	FRAC	C/W 24 HR/ 7 DAY PROGRAMMABLE 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

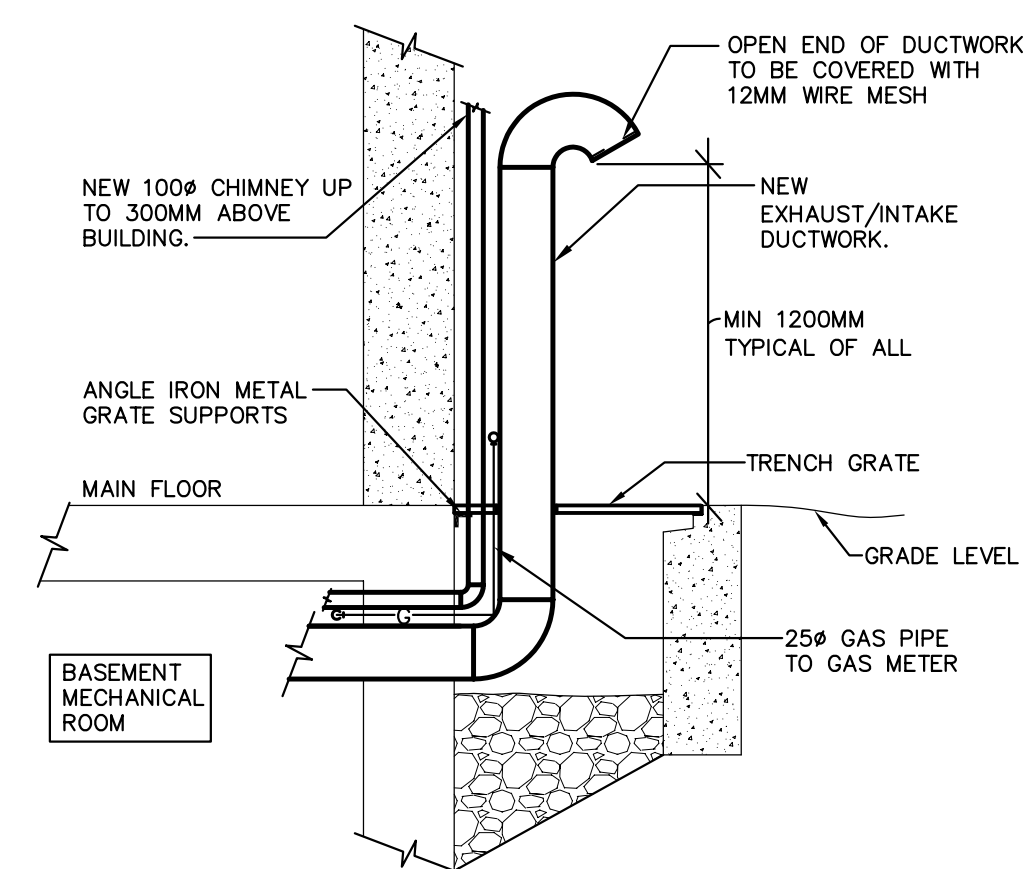
PUMP SCHEDULE

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	-	0.63 (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

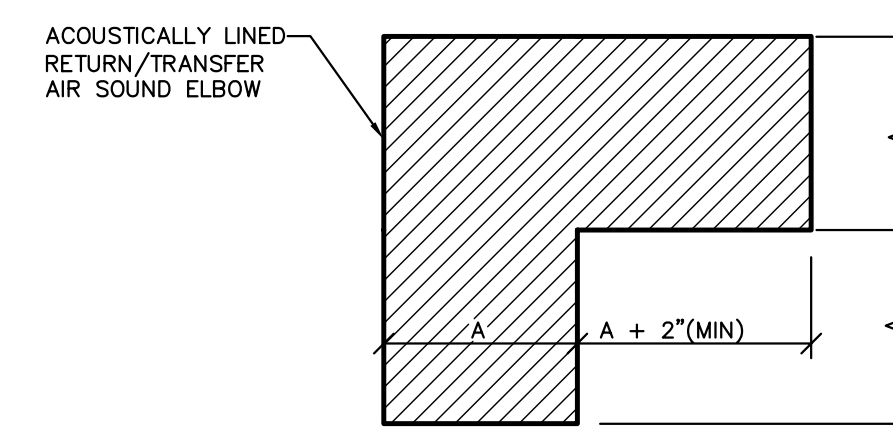
* COORDINATE ALL VOLTAGES WITH DIVISION 16



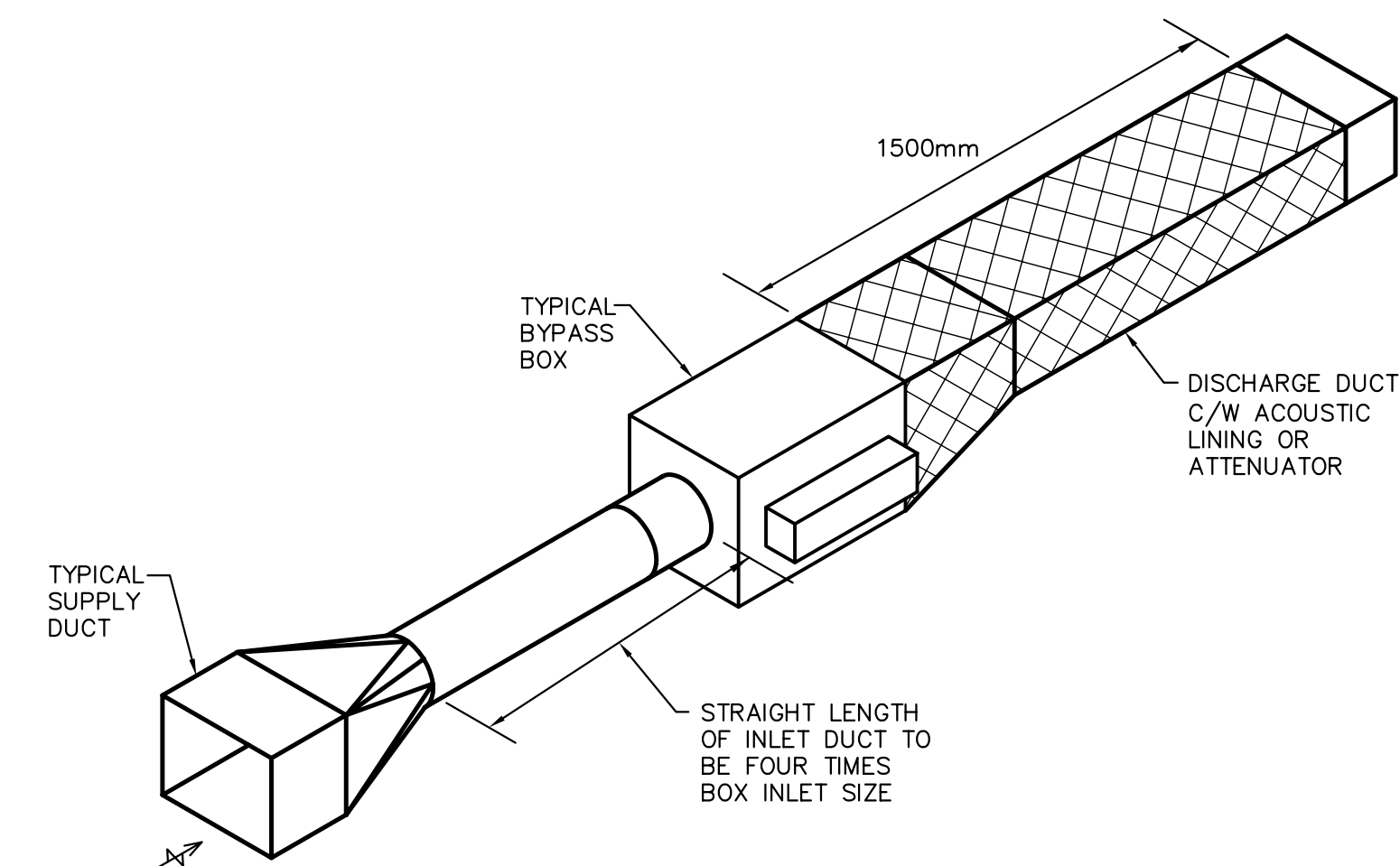
6 CEILING CAGE DETAIL SCALE: N.T.S.



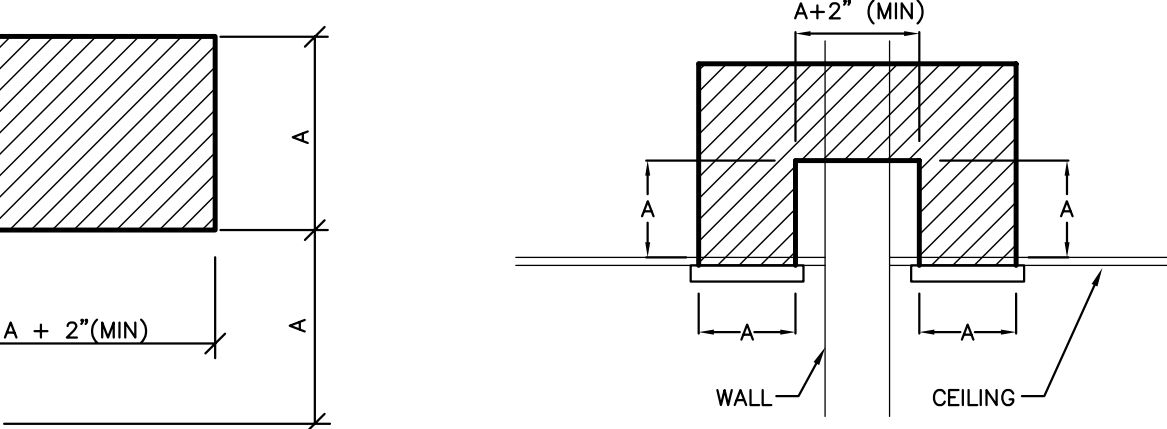
1 BASEMENT MECHANICAL DUCTWORK DETAIL SCALE: N.T.S.



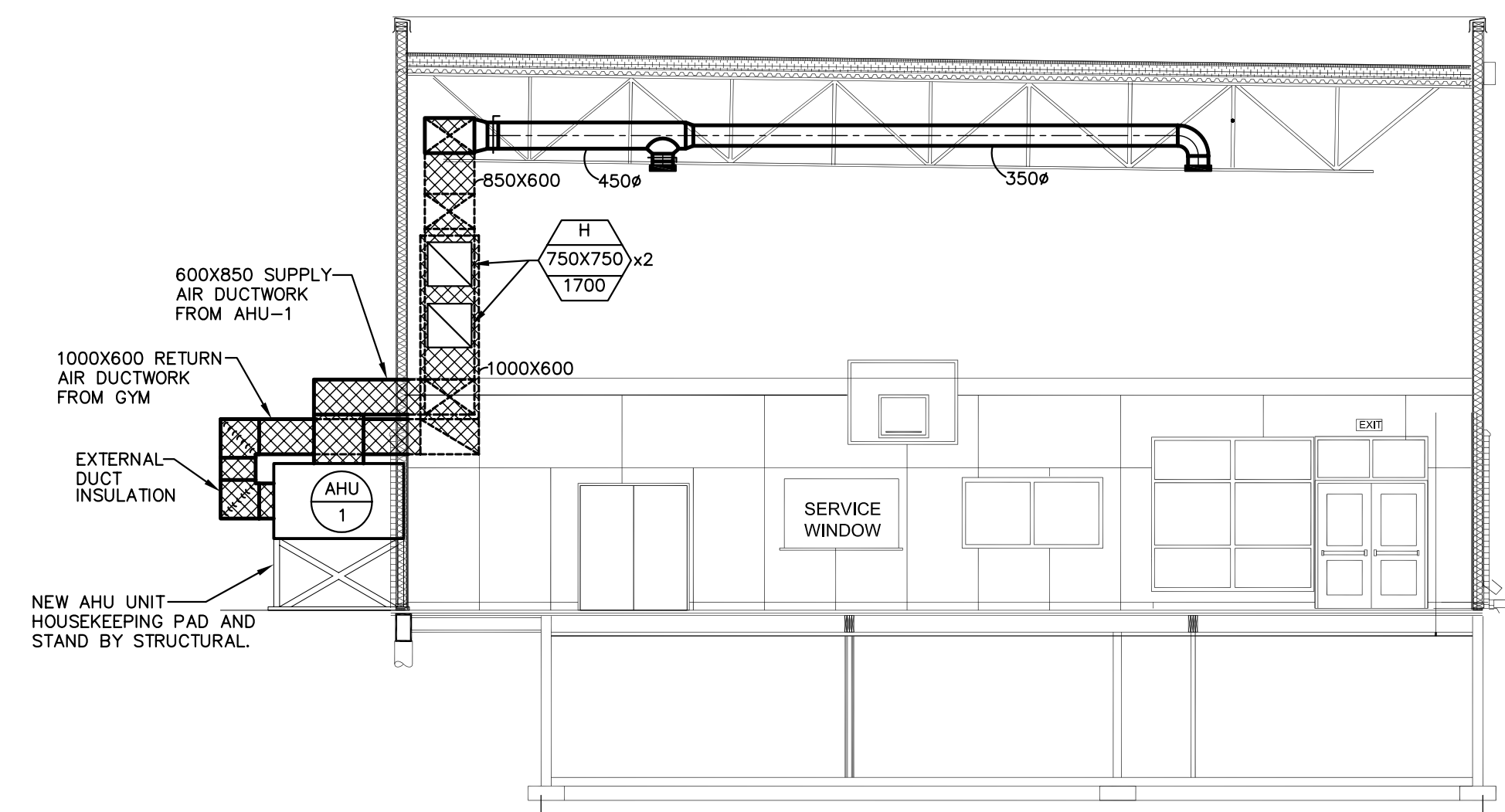
2 TRANSFER AIR DETAIL SCALE: N.T.S.



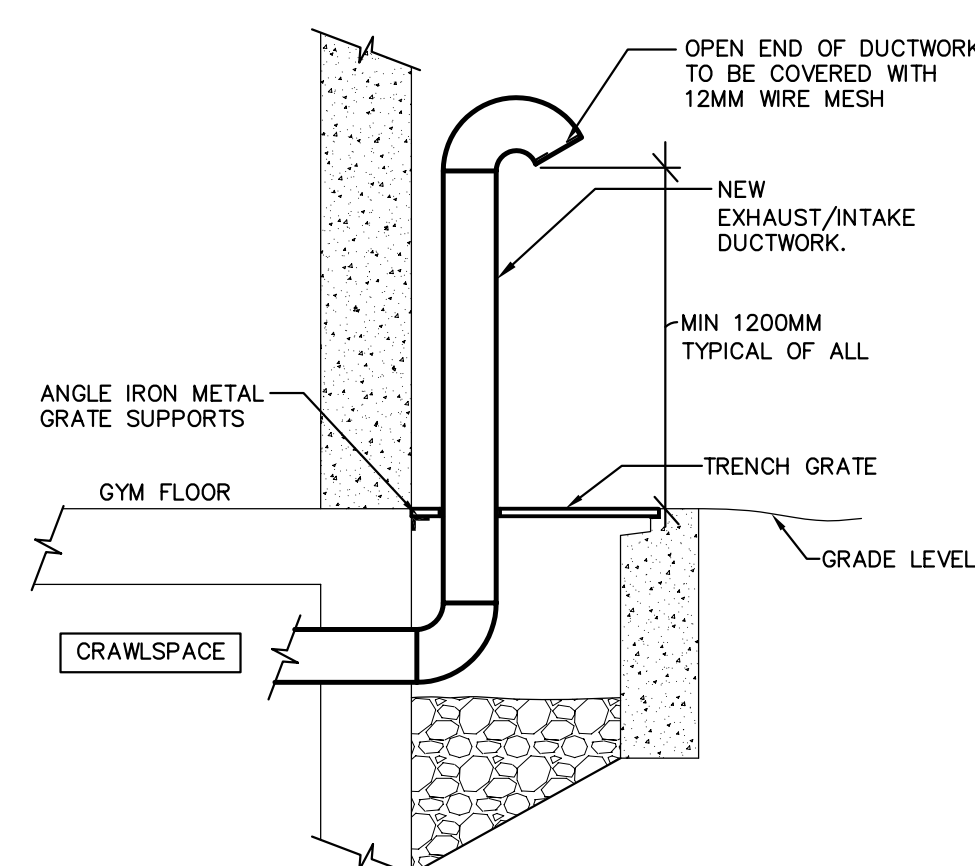
3 VAV BOX DETAIL SCALE: N.T.S.



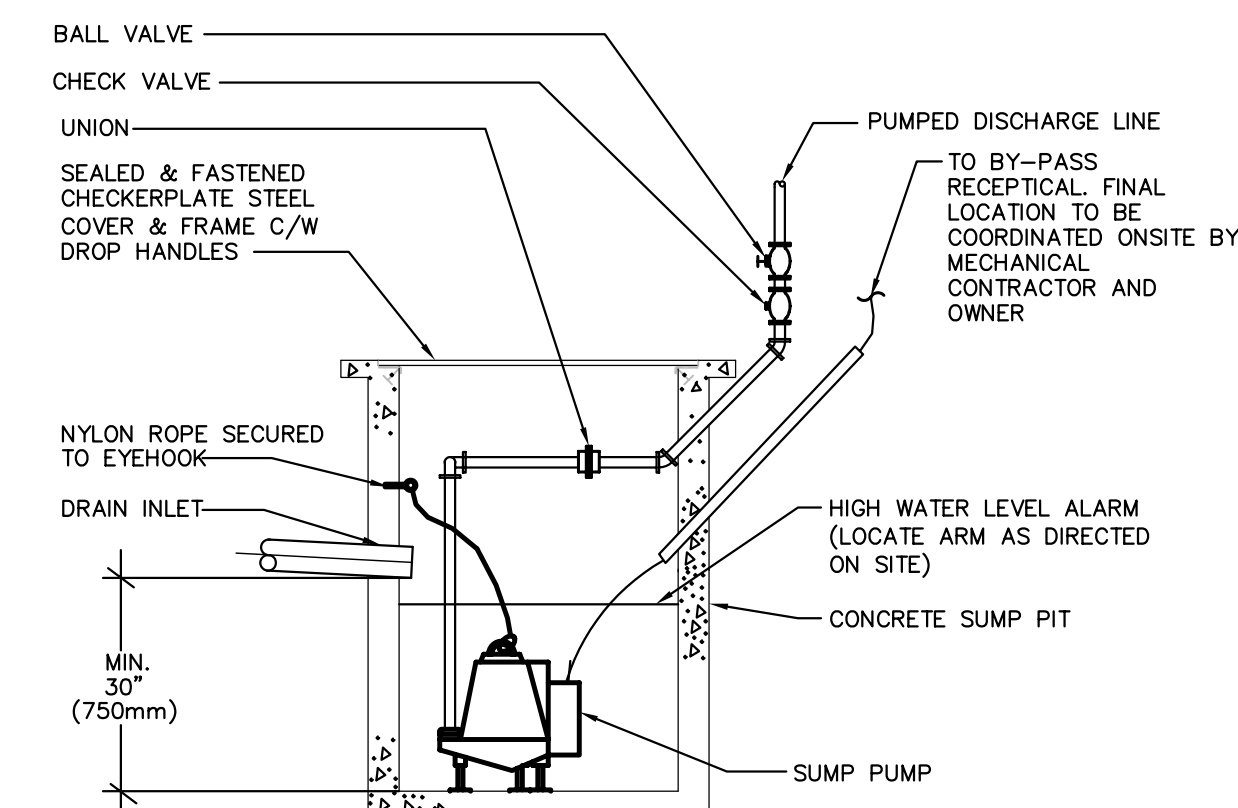
4 CEILING FAN CAGE DETAIL SCALE: N.T.S.



5 BUILDING SECTION SCALE: N.T.S.



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



NOTE: SUMP TO BE MINIMUM 750x750mm SQUARE OR 750mm DIAMETER.

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

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seals

engineers

MCW / AGE
 Consulting Professional Engineers
 210-1621 Wellington Avenue
 Winnipeg, Manitoba R3H 0G4
 Phone: (204) 779-7800 Fax: (204) 779-1119
 E-Mail: mcw_wsp@mcw-ens.com

5603

architect
HAROLD FUNK ARCHITECT INC.

#200-55 Donald Street
 Winnipeg, Manitoba
 Canada R3C 1L6

Tel: 204 943 5087
 Fax: 204 949 9231
 E-mail: hunkarch@mts.net

project
VALOUR COMMUNITY CENTRE GYMNASIUM ADDITION AND REVOLUTIONS

715 Teller St. North, Winnipeg, Manitoba

sheet title

MECHANICAL SPECIFICATION AND DETAILS

project no. 5603

scale :AS SHOWN

drawn by: RK

approved by: SR

date July 6, 2007

sheet no.

M-4 R1