R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100 FAX: (416)507-4107

BEFORE COMMENCING WORK

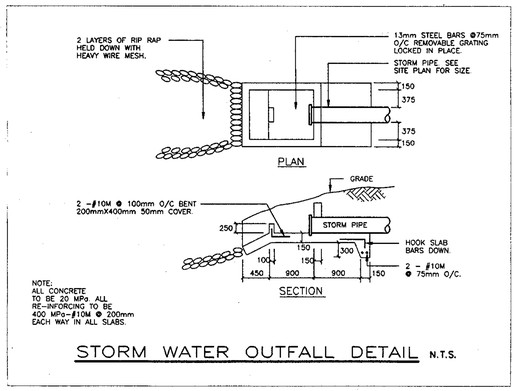
CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.

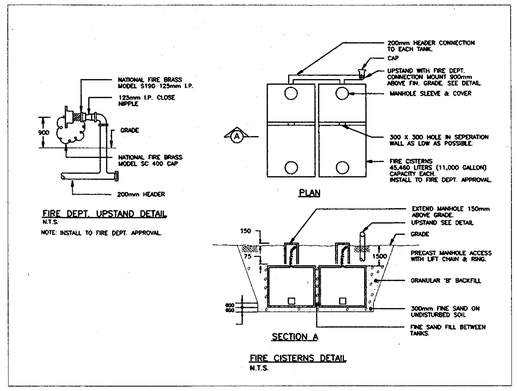
ONTARIO PROVINCIAL STANDARD

OPSD-400.02 CATCHBASIN : FRAME & GRATE
OPSD-401.03 MANHOLE FRAME & GRATE (WITH TIGHT)
OPSD-405.01 MANHOLE STEPS.
OPSD-700.03 CATCHBASIN AND MANHOLE.
OPSD-701.01 PRECAST MANHOLE 1200mm DIAMETER.
OPSD 701.03 PRECAST MANHOLE COMPONENTS.
OPSD-705.02 PRECAST CATCHBASIN (600x600mm)
OPSD-708.01 CATCHBASIN CONNECTION.
OPSD-802.03 BEDDING FOR STORM SEWER UP TO 1800mm DIAMETER. (RIGID PIPE)
OPSD-1000.01 SANITARY MANHOLE.
OPSD-1003.01 MANHOLE DROP STRUCTURE
OPSD-1003.02 MANHOLE DROP STRUCTURE.
OPSD-1004.01 BENCHING DETAILS.
OPSD-1005.01 BEDDING FOR SANITARY.

NOTES: 1. PROVIDE FILTER CLOTH TO WEEP HOLES FOR CATCHBASINS AND MANHOLES.
2. PROVIDE GOSS TRAPS TO ALL CATCHBASINS/ MANHOLES.



STORM WATER OUTFALL DETAIL N.T.S.



FIRE DEPT. UPSTAND DETAIL
N.T.S.
NOTE INSTALL TO FIRE DEPT. APPROVAL.

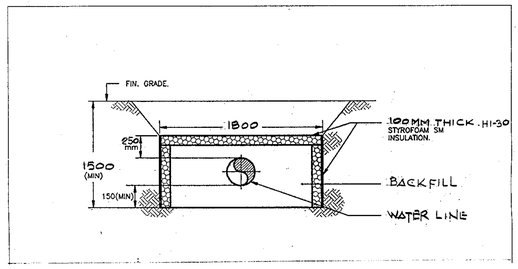
FIRE CISTERNS DETAIL
N.T.S.

PLUMBING & DRAINAGE LEGEND

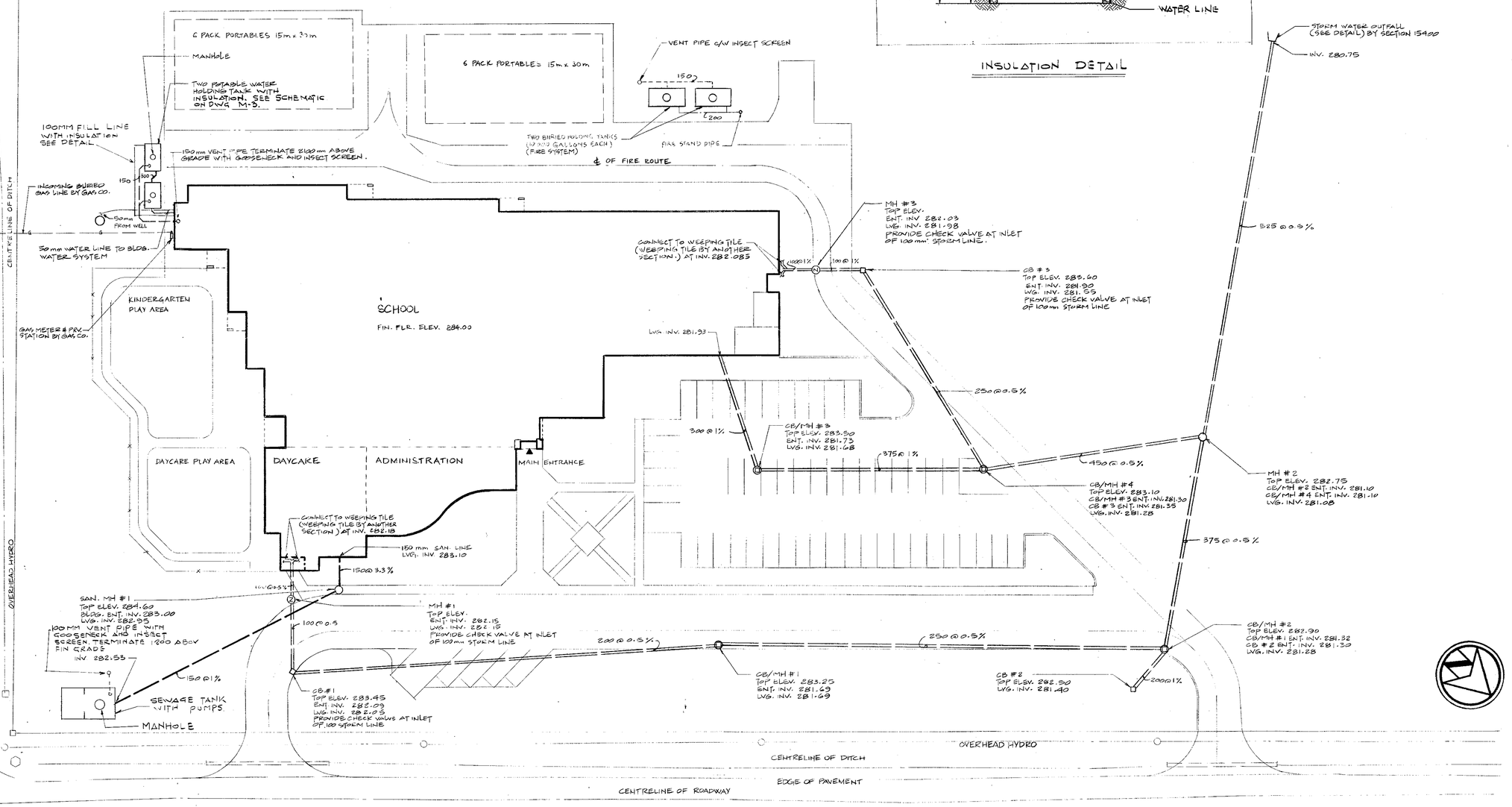
	SANITARY DRAIN (ABOVE GRADE)
	SANITARY DRAIN (BELOW GRADE)
	STORM DRAIN (ABOVE GRADE)
	STORM DRAIN (BELOW GRADE)
	VENT LINE
	DOMESTIC COLD WATER LINE
	DOMESTIC HOT WATER LINE
	DOMESTIC RECIRCULATION LINE
F	FIRE LINE (STANDPIPE SYSTEM)
G	GAS LINE
T	TEMPERED WATER LINE
XXXXXXXXXXXXXXXX	EXISTING PIPING TO REMAIN
XXXXXXXXXXXXXXXX	EXISTING PIPING TO BE REMOVED OR ABANDONED
XXX I XXX	CONNECT NEW PIPE TO EXISTING PIPE
CO	CLEANOUT
HB	HOSE BIBB
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
RH	ROOF HOPPER
RH (1)	ROOF HOPPER (CONTROL FLOW). NUMBER OF WEIRS
	GATE VALVE
	CHECK VALVE
	GLOBE VALVE
	UNION
	STRAINER
	RECIRCULATION LINE CONTROL
15 HS	"DOUL" FITTING & SIZE
	ELECTRICALLY SUPERVISED VALVE (MONITORING SWITCH)
AD	ACID RESISTANT DRAIN
F.H.C.	FIRE HOSE CABINET
F.E.	FIRE EXTINGUISHER
F.E. & CAB	FIRE EXTINGUISHER & CABINET
T.V. & F.	TRAP, VENT & FLUSH
M.H.	MANHOLE
A.D.	AREA DRAIN
C.B.	CATCHBASIN
P.A.	PIPE ANCHOR
R.W.L.	RAINWATER LEADER
B.W.V.	BACK WATER VALVE

NOTES RE: TRENCHING & BEDDING

1. READ SOIL TEST REPORT FOR EXISTING SITE CONDITIONS. NOTE THAT SITE CONTAINS FILL.
2. SUPPORT ALL PIPE BEDDING ON SOLID EARTH FOUNDATION GIVING AT LEAST 95% DENSITY MODIFIED PROCTOR (ASTM #D1557) OR OTHER EQUIVALENT SUPPORT, SEE SPECIFICATIONS, 15.A.17 AND COMPLY THERETO.
3. SEE ONTARIO PLUMBING CODE AND COMPLY THERETO FOR BOTH DRAINS AND WATER MAIN. WORK SHALL BE TO APPROVAL OF ARCHITEC, PLUMBING DEPARTMENT. TAKE ALL PRECAUTIONS TO ENSURE PIPING IS PROPERLY SUPPORTED THROUGHOUT ENTIRE LENGTH.



INSULATION DETAIL



ALLOWANCE BETWEEN LOTS 5 & 6 (FITTONS ROAD)

ALLOWANCE BETWEEN CONCESSIONS 2 & 3 (HARVIE ROAD)

No.	Date	Description
1	FEB 07 1994	ISSUED FOR TENDER.

Revisions

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

SITE PLAN

R.H. CARTER ARCHITECTS INC.
SUITE 200 897 KIPLING AVENUE
ETOBICOKE ONTARIO M8Z 5H3
TEL 416-233-5583 FAX 416-233-5585

REGISTERED PROFESSIONAL ENGINEER D. JAIN PROVINCE OF ONTARIO
93-121

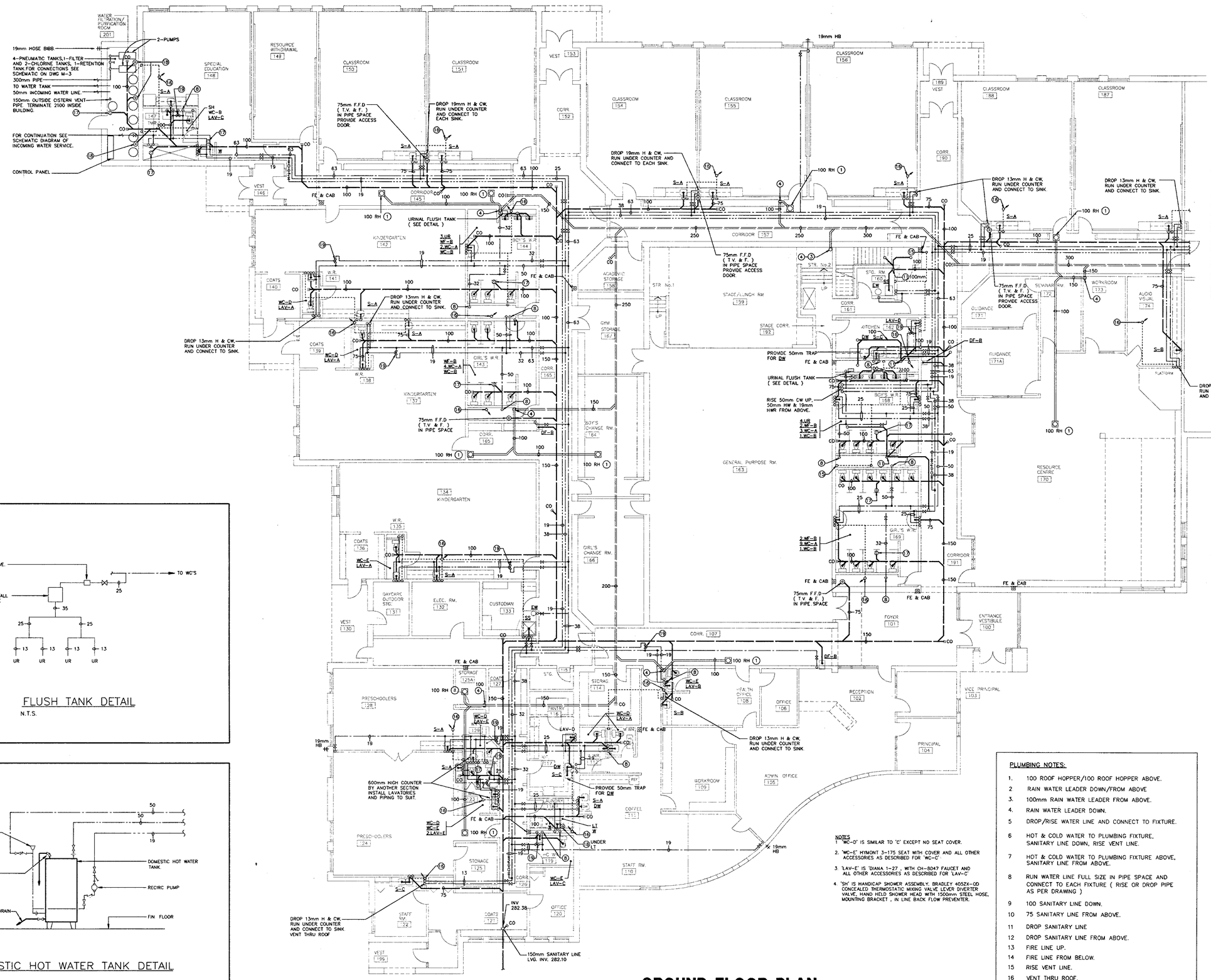
True North	Dwg. North
Scale	1 : 300
Date	FEB 4, 1994
Printed	FEB 4 94
Project No.	92-56
Dwg. No	M-1

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100
FAX: (416)507-4107

BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.



FLUSH TANK DETAIL
N.T.S.

DOMESTIC HOT WATER TANK DETAIL
N.T.S.

NOTES
1. 'WC-D' IS SIMILAR TO 'C' EXCEPT NO SEAT COVER.
2. 'WC-E' HYMONT 3-175 SEAT WITH COVER AND ALL OTHER ACCESSORIES AS DESCRIBED FOR 'WC-C'.
3. 'LAV-E' IS 'DIANA 1-27', WITH CH-8047 FAUCET AND ALL OTHER ACCESSORIES AS DESCRIBED FOR 'LAV-C'
4. 'SH' IS HANDICAP SHOWER ASSEMBLY, BRADLEY 4052X-OD CONCEALED THERMOSTATIC MIXING VALVE LEVER DIVERTER VALVE, HAND HELD SHOWER HEAD WITH 1500mm STEEL HOSE, MOUNTING BRACKET, IN LINE BACK FLOW PREVENTER.

PLUMBING NOTES:

1. 100 ROOF HOPPER/100 ROOF HOPPER ABOVE.
2. RAIN WATER LEADER DOWN/FROM ABOVE
3. 100mm RAIN WATER LEADER FROM ABOVE.
4. RAIN WATER LEADER DOWN.
5. DROP/RISE WATER LINE AND CONNECT TO FIXTURE.
6. HOT & COLD WATER TO PLUMBING FIXTURE, SANITARY LINE DOWN, RISE VENT LINE.
7. HOT & COLD WATER TO PLUMBING FIXTURE ABOVE, SANITARY LINE FROM ABOVE.
8. RUN WATER LINE FULL SIZE IN PIPE SPACE AND CONNECT TO EACH FIXTURE (RISE OR DROP PIPE AS PER DRAWING)
9. 100 SANITARY LINE DOWN.
10. 75 SANITARY LINE FROM ABOVE.
11. DROP SANITARY LINE
12. DROP SANITARY LINE FROM ABOVE.
13. FIRE LINE UP.
14. FIRE LINE FROM BELOW.
15. RISE VENT LINE.
16. VENT THRU ROOF.
17. 75mm FLOOR DRAIN (TRAP, VENT & FLUSH).
18. 75mm FUNNEL FLOOR DRAIN (TRAP, VENT & FLUSH).
19. MIXING VALVE. SEE DETAIL

GROUND FLOOR PLAN F.F.L. 284.00

1 : 100

No.	Date	Description
1	FEB. 07 1994	ISSUED FOR TENDER

Revisions

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

FLOOR PLAN
PLUMBING

R.H. CARTER ARCHITECTS INC.
SUITE 200 897 KIPLING AVENUE
ETOBICOKE ONTARIO M8Z 5H3
TEL. 416-233-5583 FAX 416-233-5585

REGISTERED PROFESSIONAL ENGINEER D. JAIN PROVINCE OF ONTARIO
93-121

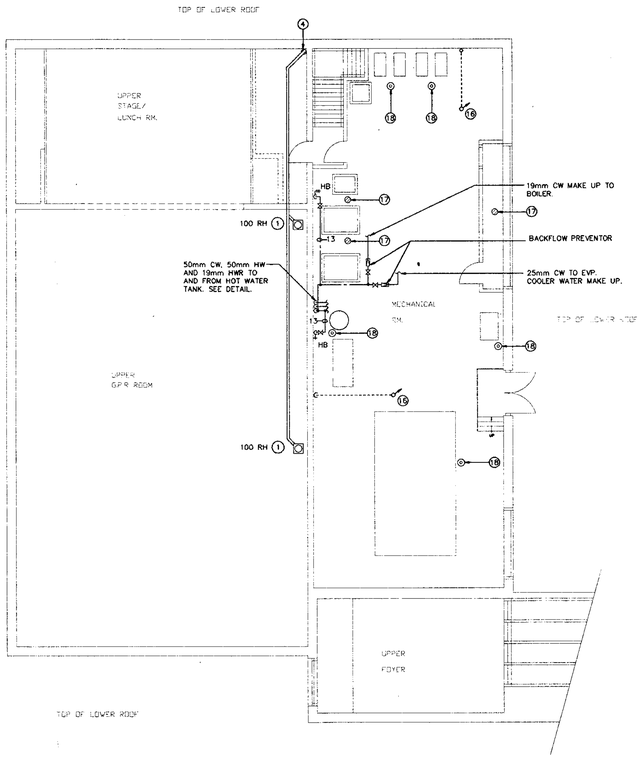
True North	Dwg. North
Scale	1 : 100
Date	FEB. 4, 1994
Printed	FEB. 4, 1994
Project No. 92-56	Dwg. No. M-2

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100
FAX: (416)507-4107

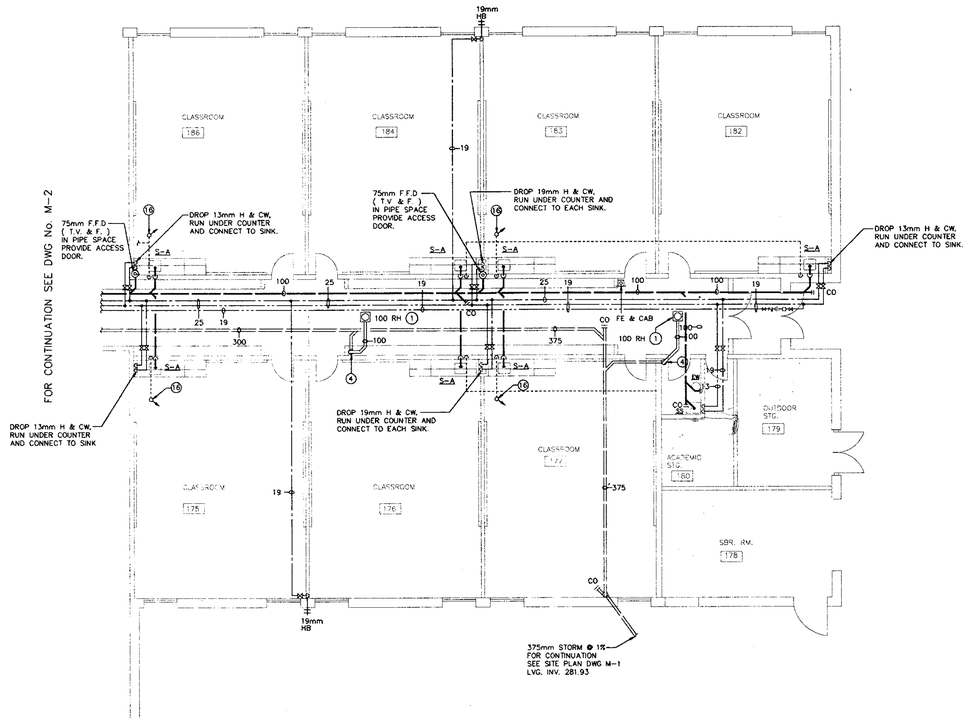
BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

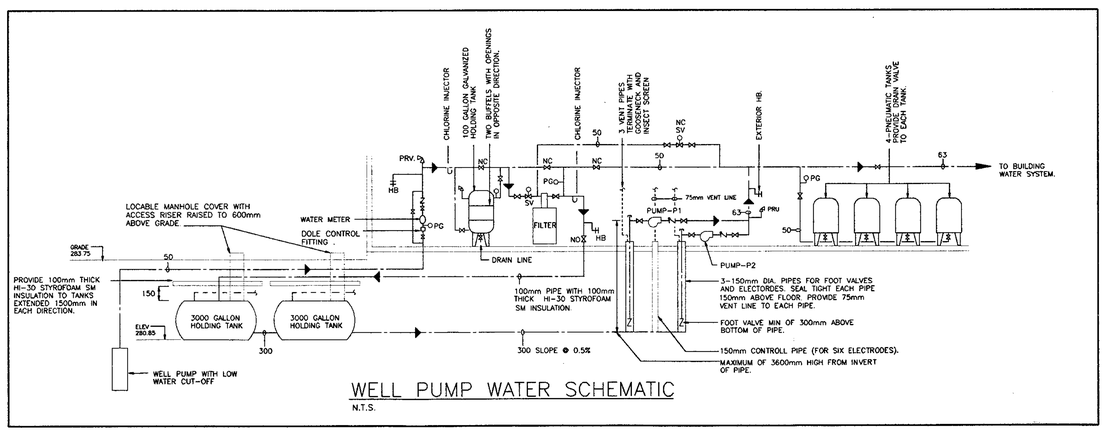
REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.



UPPER FLOOR PLAN
1 : 100



GROUND FLOOR PLAN (CONTINUATION)
1 : 100



WELL PUMP WATER SCHEMATIC
N.T.S.

PLUMBING NOTES:

1. 100 ROOF HOPPER/100 ROOF HOPPER ABOVE.
2. RAIN WATER LEADER DOWN/FROM ABOVE
3. 100mm RAIN WATER LEADER FROM ABOVE.
4. RAIN WATER LEADER DOWN.
5. DROP/RISE WATER LINE AND CONNECT TO FIXTURE.
6. HOT & COLD WATER TO PLUMBING FIXTURE, SANITARY LINE DOWN, RISE VENT LINE.
7. HOT & COLD WATER TO PLUMBING FIXTURE ABOVE, SANITARY LINE FROM ABOVE.
8. RUN WATER LINE FULL SIZE IN PIPE SPACE AND CONNECT TO EACH FIXTURE (RISE OR DROP PIPE AS PER DRAWING)
9. 100 SANITARY LINE DOWN.
10. 75 SANITARY LINE FROM ABOVE.
11. DROP SANITARY LINE
12. DROP SANITARY LINE FROM ABOVE.
13. FIRE LINE UP.
14. FIRE LINE FROM BELOW.
15. RISE VENT LINE.
16. VENT THRU ROOF.
17. 75mm FLOOR DRAIN (TRAP, VENT & FLUSH).
18. 75mm FUNNEL FLOOR DRAIN (TRAP, VENT & FLUSH).
19. MIXING VALVE. SEE DETAIL

No.	Date	Description
1	FEB. 07 1994	ISSUED FOR TENDER

Revisions

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

FLOOR PLAN
PLUMBING

R.H. CARTER ARCHITECTS INC.
SUITE 200 897 KIPLING AVENUE
ETOBICOKE ONTARIO M8Z 5H3
TEL 416-233-5583 FAX 416-233-5585

REGISTERED PROFESSIONAL ENGINEER D. JAIN PROVINCE OF ONTARIO
93-121

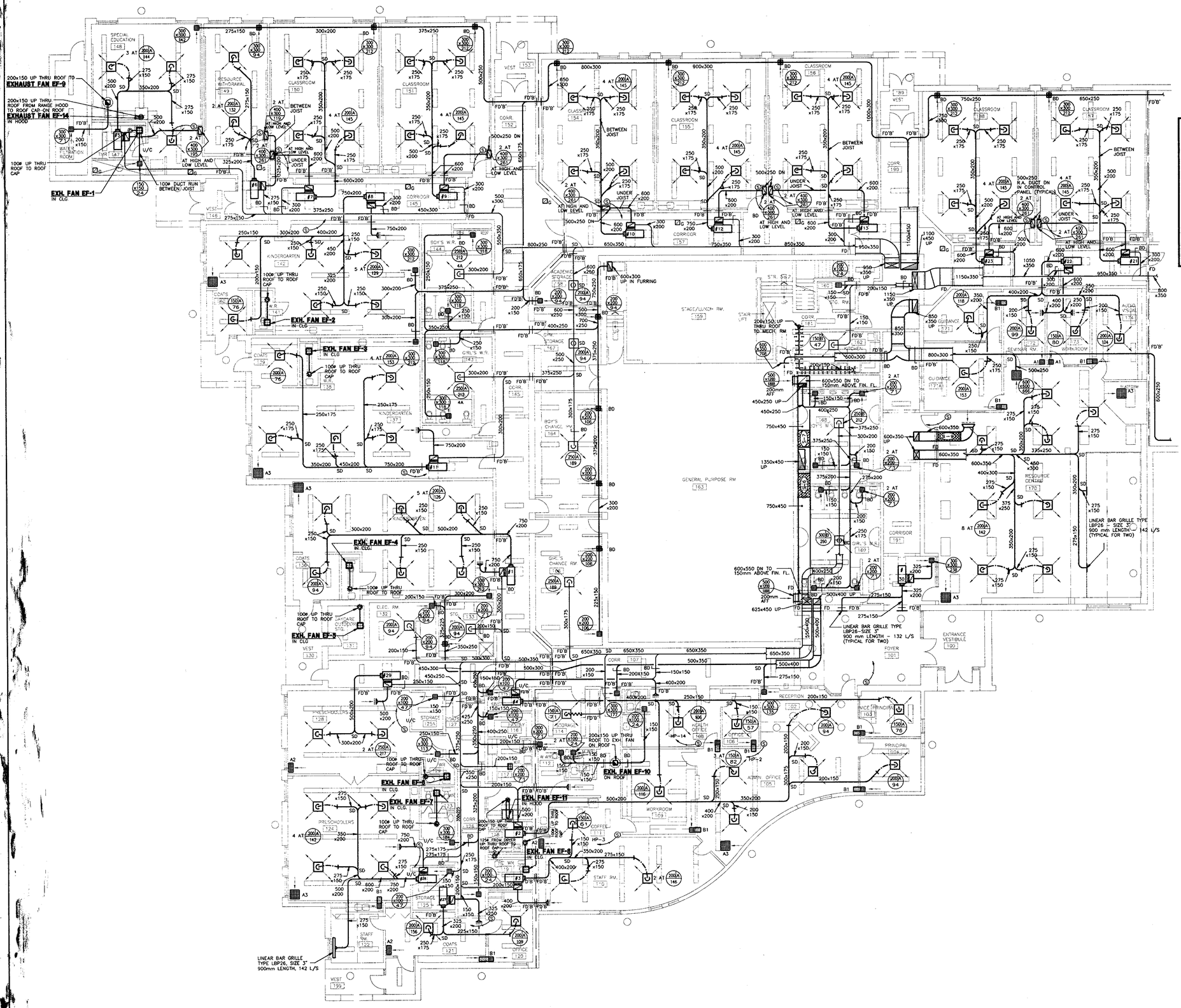
True North	Dwg. North
Scale	1 : 100
Date	FEB. 4, 1994
Printed	FEB. 4, 1994
Project No.	92-56
Dwg. No.	M-3

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100
FAX: (416)507-4107

BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.



H.V.A.C. LEGEND

HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
LTS	LOW TEMP. WATER SUPPLY
LTR	LOW TEMP. WATER RETURN
ST	STEAM LINE
C	CONDENSATE PUMP DISCHARGE
G	GAS LINE
CBV	CIRCUIT BALANCING VALVE(SEE SPEC)
EX	EXPANSION LINE
SOV	SHUT OFF VALVE
SCV	SELF CONTAINED VALVE
CV	CONTROL VALVE
	CHECK VALVE
	ANCHORS
	UNION
	STRAINER
	EXPANSION JOINT & GUIDES
3	SEE DETAIL 3-WAY CONTROL VALVE
T	THERMOSTAT
H	HUMIDISTAT
S	SENSOR
SG	SENSOR WITH GUARD
HG	HUMIDISTAT WITH GUARD
TH	THERMOMETER
SD V.V.V.V.	STEAM DISTRIBUTOR
	STEAM TRAP & DRIP
C.O.	CLEAN OUT
U/C	UNDER CUT DOOR BY ANOTHER TRADE SECTION.
	SPLITTER DAMPER
B.D.	BALANCING DAMPER
F.D.	FIRE DAMPER
	SHADING DENOTES SOUND LINING (SEE SPECS).
	DENOTES SILENCER
	SOUND LINING
	SOUND JACKETING
	BLANK OFF SHADED PORTION OF DIFFUSER
A.D.	ACCESS DOOR
	TURNING VANES (DOUBLE THICKNESS-SEE SPECS)
	FIRE PROOFING
4 M-6	DETAIL OR SECTION NUMBER DETAIL OR SECTION SHEET LOCATION
300 x200 100	GRILLE SIZE (SUPPLY) L/S
300 x200 100	GRILLE SIZE (RETURN OR EXH.) L/S
250A 350	SIZE TYPE OF DIFFUSER L/S
G	GAS VENT GRILLE SIZE 300x300
F.S.F.	FIRE STOP FLAP
S.D.	SPLITTER DAMPER
FC	FLEX. CONNECTION
	OPEN END DUCT C/W 13mm MESH SCREEN
A1	300x300 RETURN AIR GRILLE
A2	300x600 RETURN AIR GRILLE
A3	600x600 RETURN AIR GRILLE
B1	300x300 RETURN AIR GRILLE C/W SOUNDLINED 300x200x900 LONG OPEN END DUCT
B2	300x600 RETURN AIR GRILLE C/W SOUNDLINED 600x200x1200 LONG OPEN END DUCT
B3	600x600 RETURN AIR GRILLE C/W SOUNDLINED 600x300x1200 LONG OPEN END DUCT
C1	400x400 SOUNDLINED ELBOW DUCT THRU WALL
D1	600x300 TRANSFER GRILLES C/W SOUNDLINED 600x200 INTERCONNECTING DUCT MIN 1200 LONG OVERALL
SD	SMOKE DETECTOR

FLOOR PLAN – DUCTWORK

SCALE 1 : 100

No.	Date	Description
1	FEB. 07 1994	ISSUED FOR TENDER

Revisions

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

FLOOR PLAN
HVAC

R.H. CARTER ARCHITECTS INC.
SUITE 200 897 KIPLING AVENUE
ETOBICOKE ONTARIO M8Z 5X3
TEL 416-233-5583 FAX 416-233-5585

REGISTERED PROFESSIONAL ENGINEER D.JAIN PROVINCE OF ONTARIO
93-121

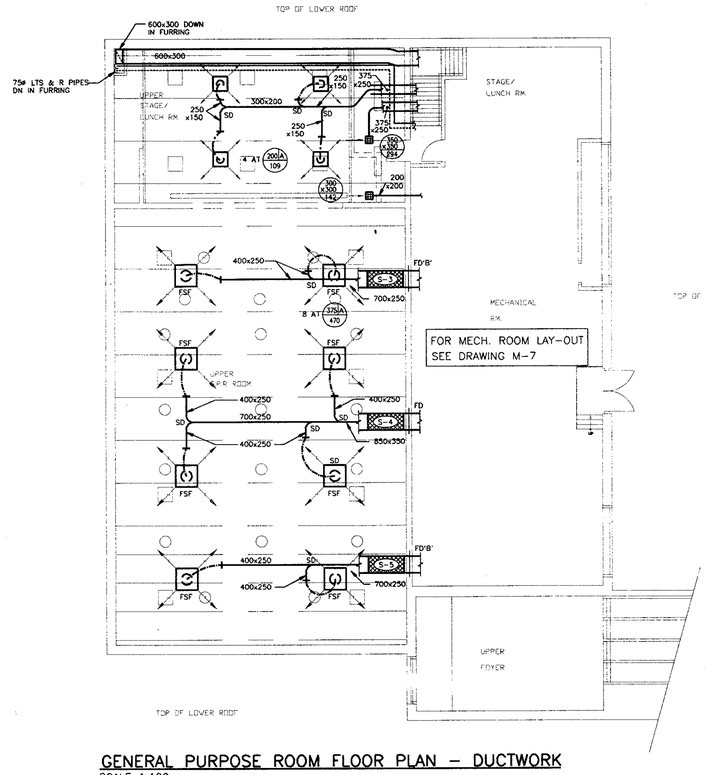
True North	Dwg. North
Scale	1:100
Date	FEB. 4, 1994
Printed	FEB. 4, 1994
Project No.	92-56
Dwg. No.	M-4

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100
FAX (416)507-4107

BEFORE COMMENCING WORK

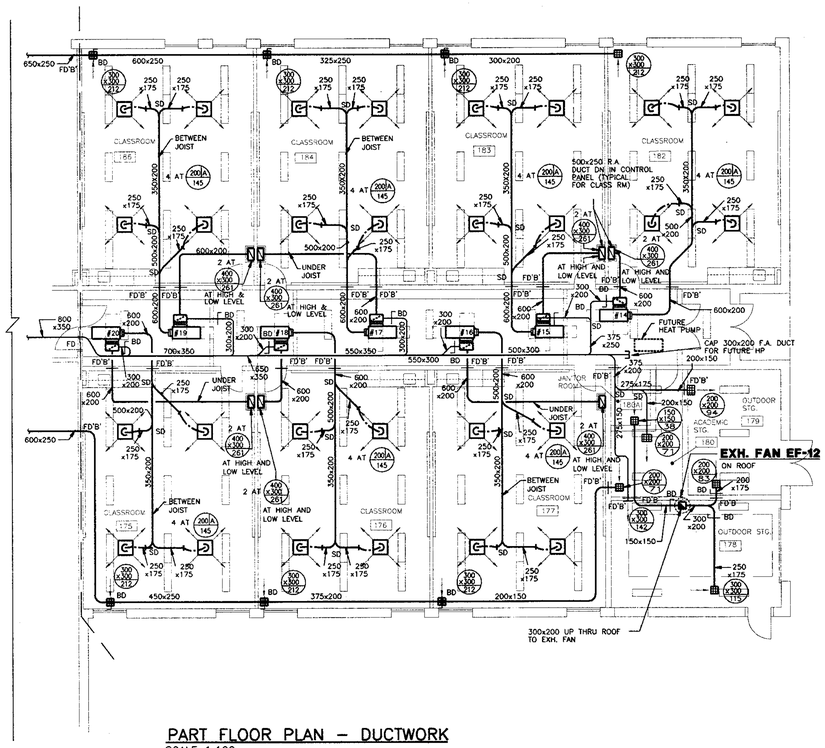
CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.



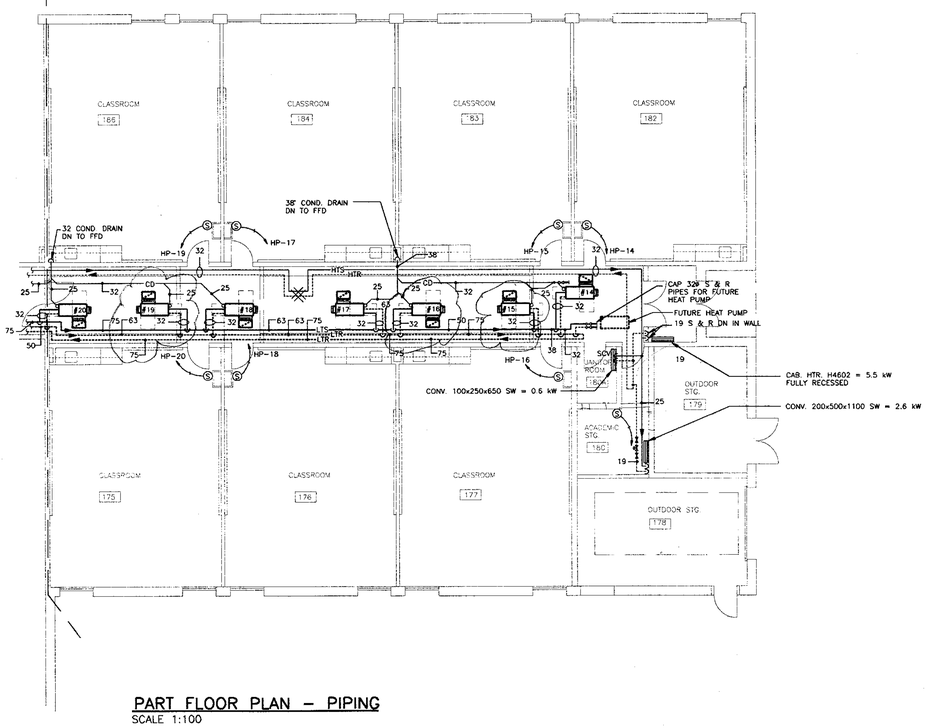
GENERAL PURPOSE ROOM FLOOR PLAN – DUCTWORK
SCALE 1:100

FOR CONTINUATION SEE DRAWING M-4



PART FLOOR PLAN – DUCTWORK
SCALE 1:100

FOR CONTINUATION SEE DRAWING M-6



PART FLOOR PLAN – PIPING
SCALE 1:100

No.	Date	Description
1	FEB. 07 1994	ISSUED FOR TENDER

Revisions

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

FLOOR PLANS
HVAC

R.H. CARTER-ARCHITECTS INC.
SUITE 200 597 KIPLING AVENUE
ETOBICOKE ONTARIO M8Z 5G3
TEL 416-233-5583 FAX 416-233-5585

REGISTERED PROFESSIONAL ENGINEER D. JAIN PROVINCE OF ONTARIO

93-121

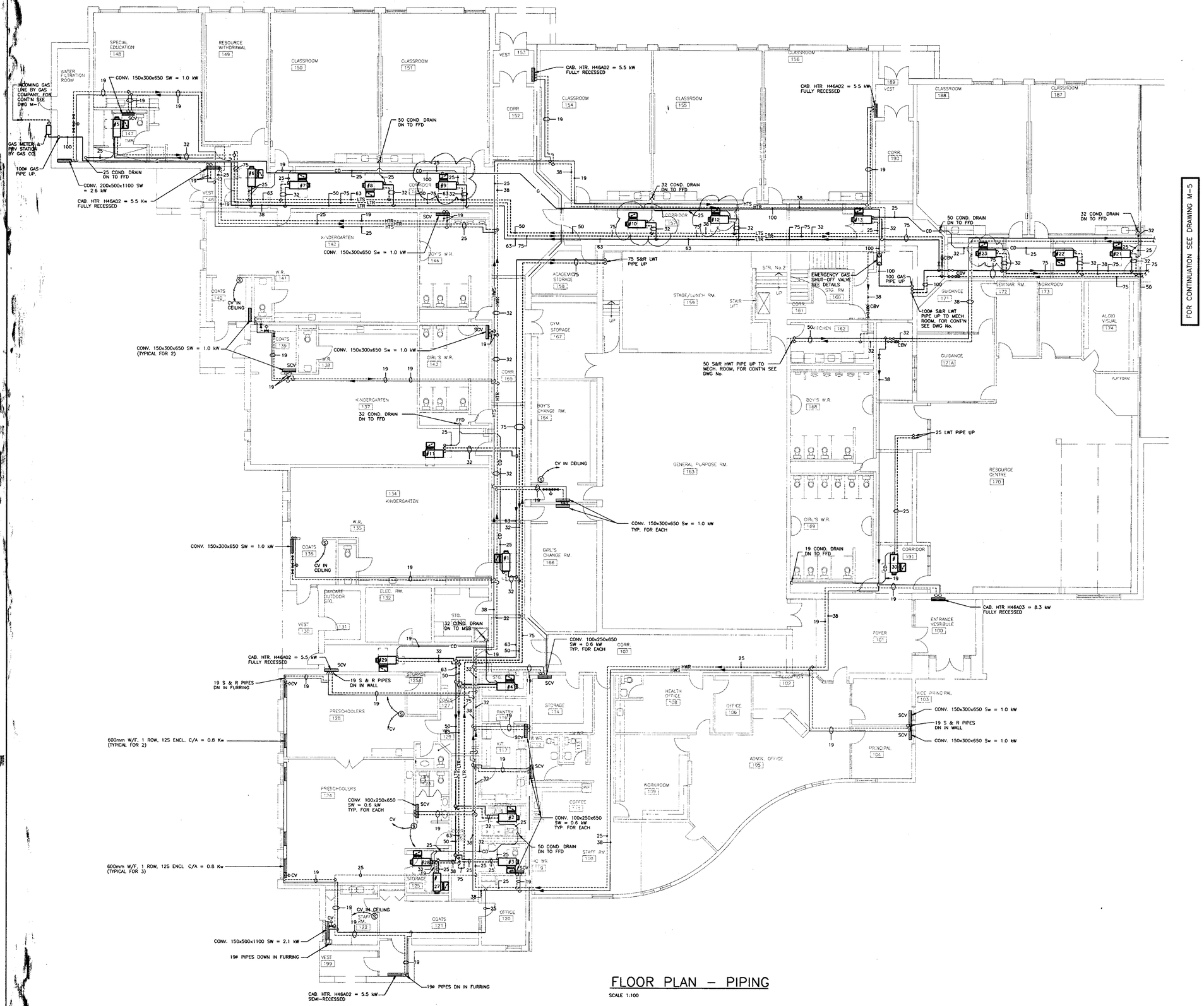
True North / Dwg. North	
Scale	1:100
Date	FEB. 4, 1994
Printed	FEB. 4, 1994
Project No.	92-56
Dwg. No.	M-5

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100 FAX: (416)507-4107

BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.



FLOOR PLAN – PIPING

SCALE 1:100

No.	Date	Description
1	FEB. 07 1994	ISSUED FOR TENDER

Revisions

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

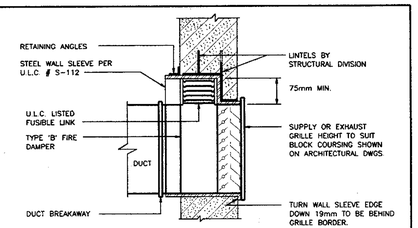
FLOOR PLAN
PIPING – HVAC

R.H. CARTER ARCHITECTS INC.
SUITE 200 897 KIPLING AVENUE
ETOBICOKE, ONTARIO M8Z 5H3
TEL 416-233-5583 FAX 416-233-5585

REGISTERED PROFESSIONAL ENGINEER D.JAIN PROVINCE OF ONTARIO

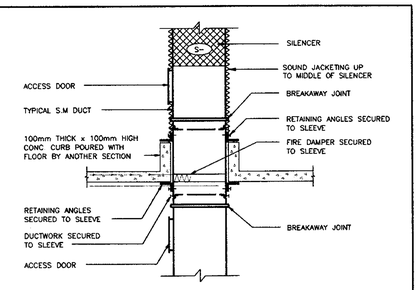
93-121

True North / Dwg North	
Scale	1:100
Date	FEB. 4, 1994
Printed	FEB. 4, 1994
Project No.	92-56
Dwg. No.	M-6



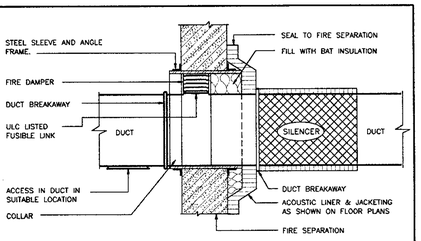
TYPICAL DETAIL OF TYPE 'B' FIRE DAMPER IN WALL

N.T.S.



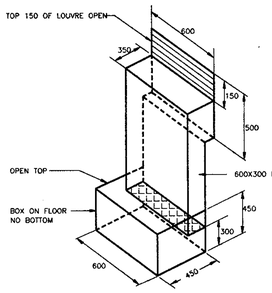
TYPICAL DUCT THRU MECHANICAL RM FLOOR

N.T.S.

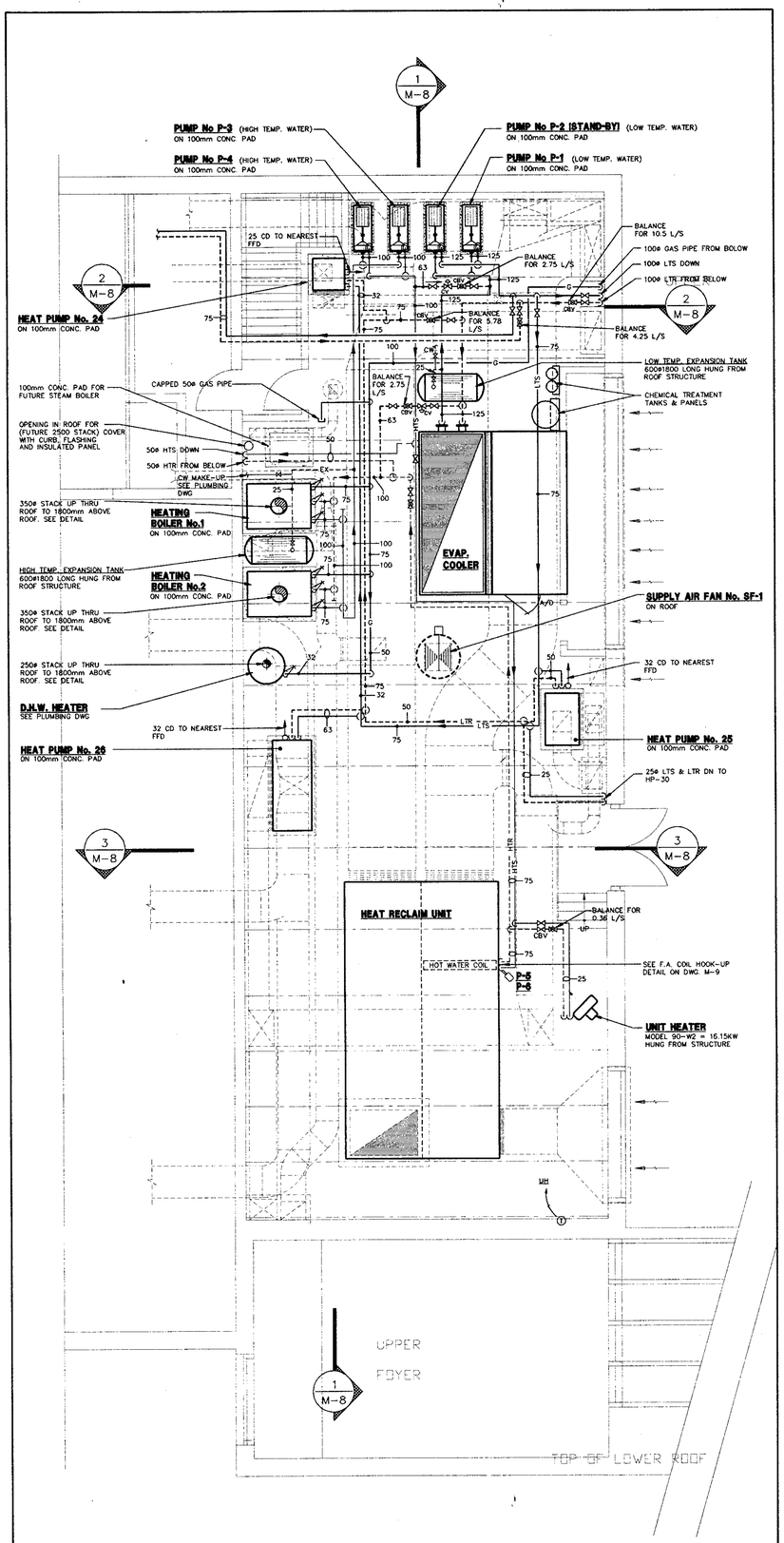


TYPICAL SILENCER & FIRE DAMPER INSTALLATION

N.T.S.

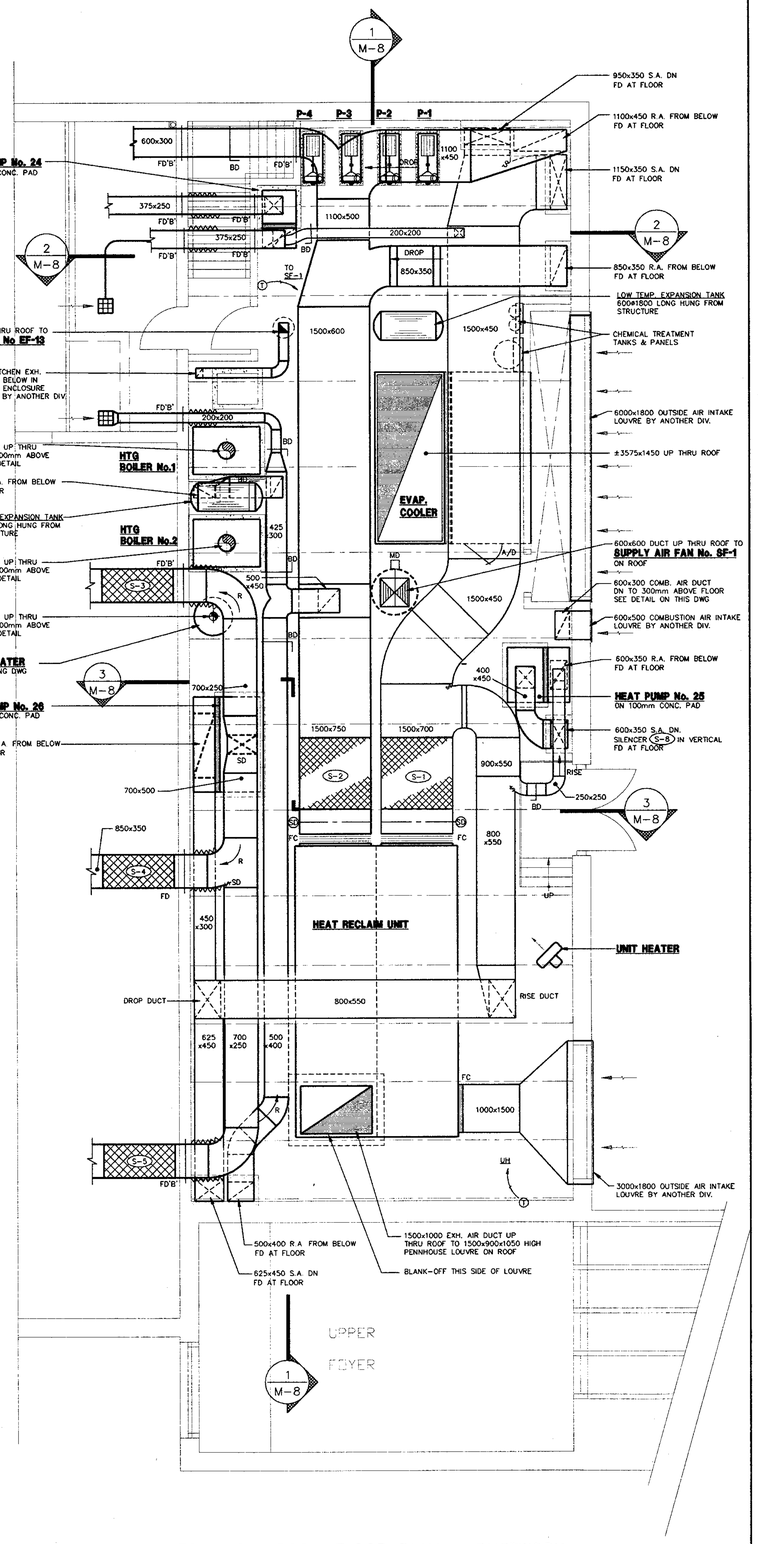


COMBUSTION AIR INLET DETAIL N.T.S.



MECHANICAL ROOM FLOOR PLAN – PIPING

SCALE 1:100



MECHANICAL ROOM FLOOR PLAN – DUCTWORK

SCALE 1:100

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100
FAX: (416)507-4107

BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.

No.	Date	Description
1	FEB. 07 1994	ISSUED FOR TENDER

Revisions

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

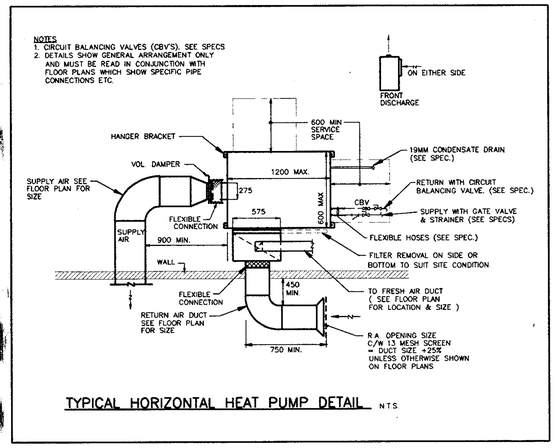
MECH. RM FL. PLANS
HVAC

R.H. CARTER-ARCHITECTS INC.
SUITE 200 897 KIPLING AVENUE
ETOBICOKE ONTARIO M8Z 5H3
TEL 416-233-5583 FAX 416-233-5585

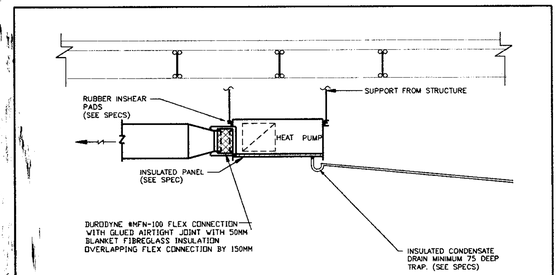
REGISTERED PROFESSIONAL ENGINEER D.JAIN PROVINCE OF ONTARIO

93-121

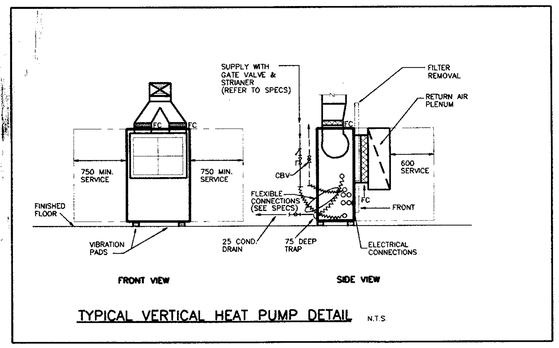
True North	Dwg. North
Scale	1:50
Date	FEB. 4, 1994
Printed	FEB. 4, 1994
Project No.	92-56
Dwg. No.	M-7



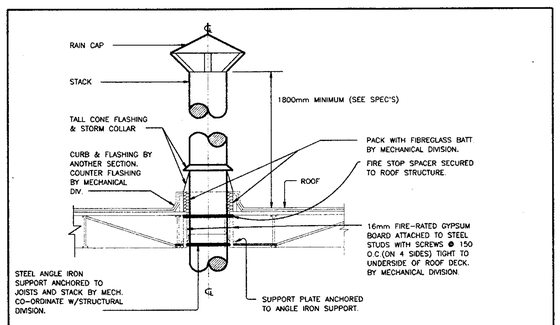
TYPICAL HORIZONTAL HEAT PUMP DETAIL N.T.S.



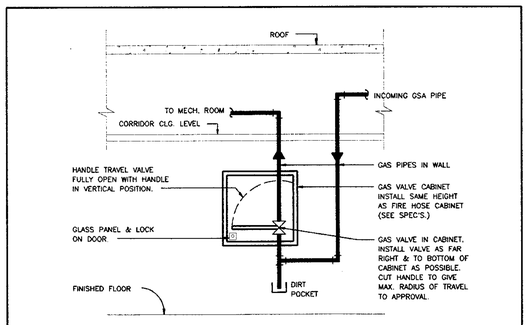
TYPICAL HORIZONTAL HEAT PUMP DETAIL N.T.S.



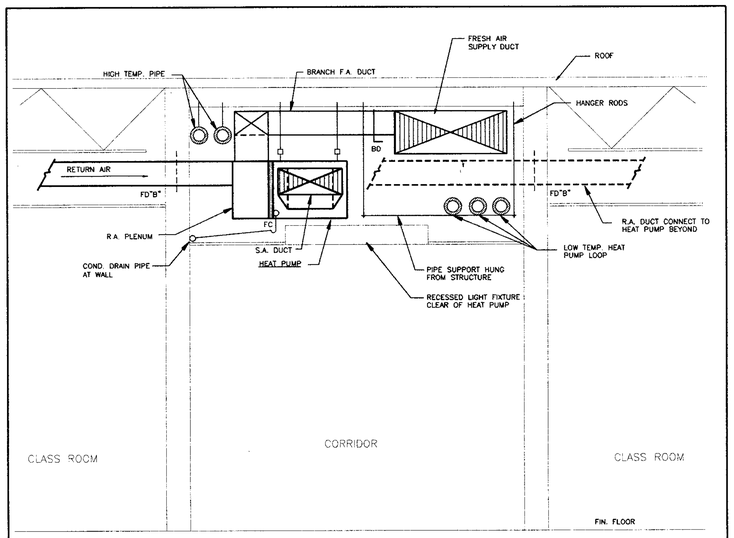
TYPICAL VERTICAL HEAT PUMP DETAIL N.T.S



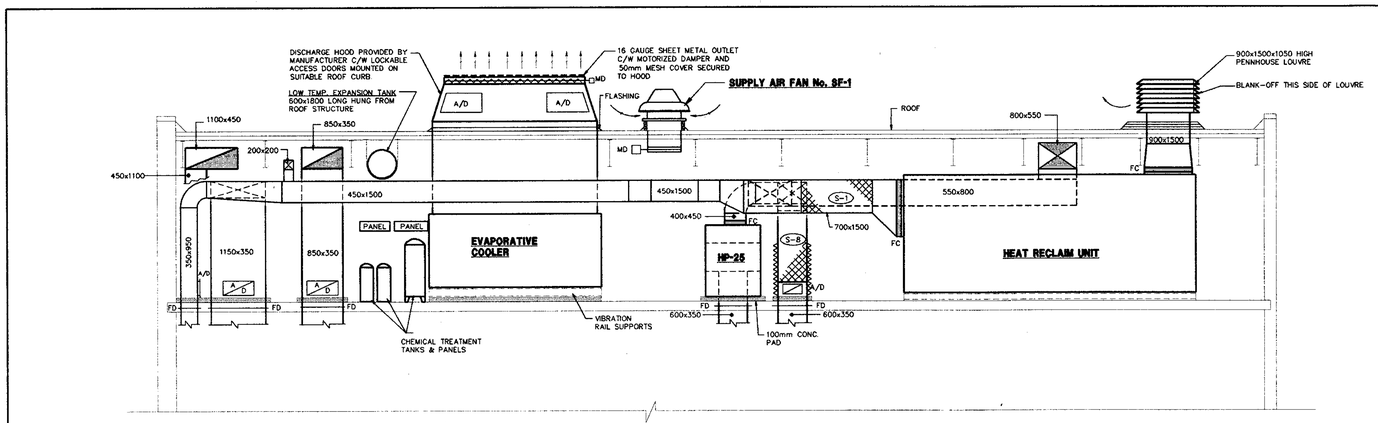
TYPICAL STACK SUPPORT DETAIL N.T.S.



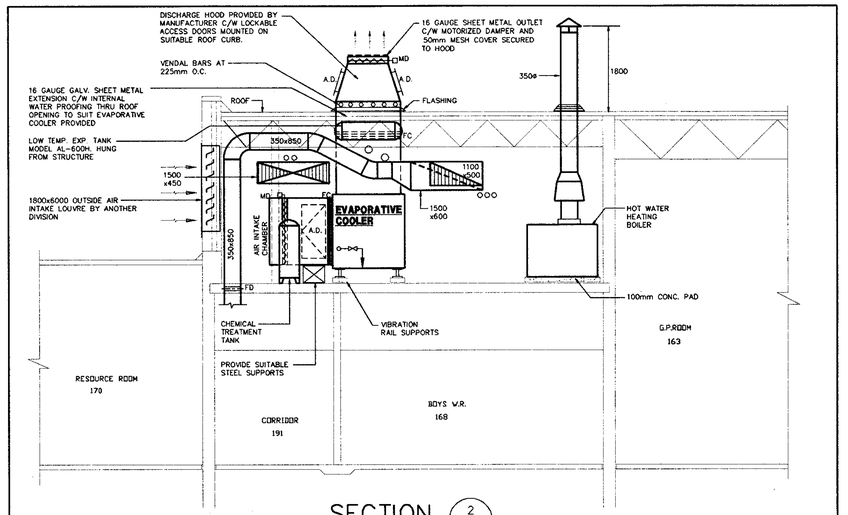
EMERGENCY GAS SHUT-OFF VALVE CABINET DETAIL
N.T.S.



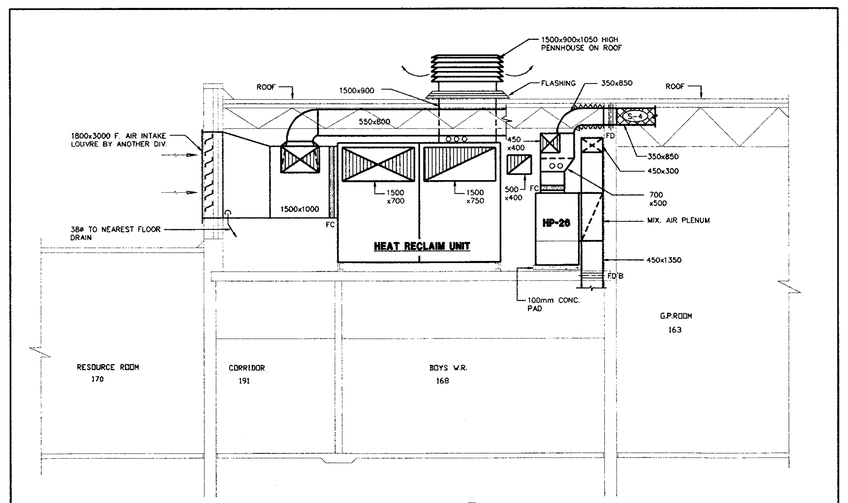
TYPICAL SECTION THRU CORRIDOR N.T.S.



SECTION (1 / M-7)
SCALE 1:50



SECTION (2 / M-7)
SCALE 1:50



SECTION (3 / M-7)
SCALE 1:50

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100 FAX: (416)507-4107

BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.

No.	Date	Description
1	FEB. 07 1994	ISSUED FOR TENDER

Revisions

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

SECTIONS & DETAILS HVAC

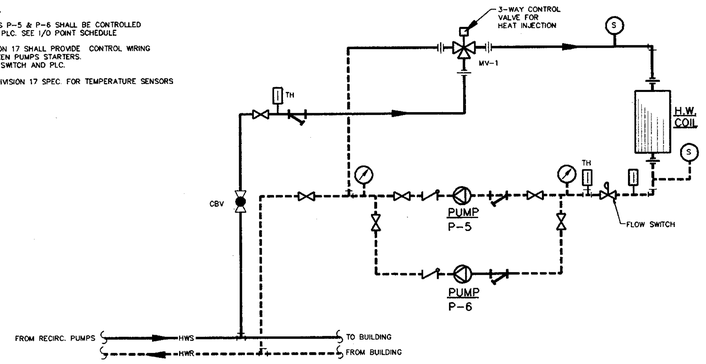
R.H. CARTER - ARCHITECTS INC.
SUITE 206 897 KIPLING AVENUE ETOBICOKE ONTARIO M8Z 5H3
TEL 416-233-5583 FAX 416-233-5585

REGISTERED PROFESSIONAL ENGINEER D.JAIN PROVINCE OF ONTARIO
93-121

True North	Dwg. North
Scale	AS NOTED
Date	FEB. 4, 1994
Printed	FEB. 4, 1994
Project No.	92-56
Dwg. No.	M-8

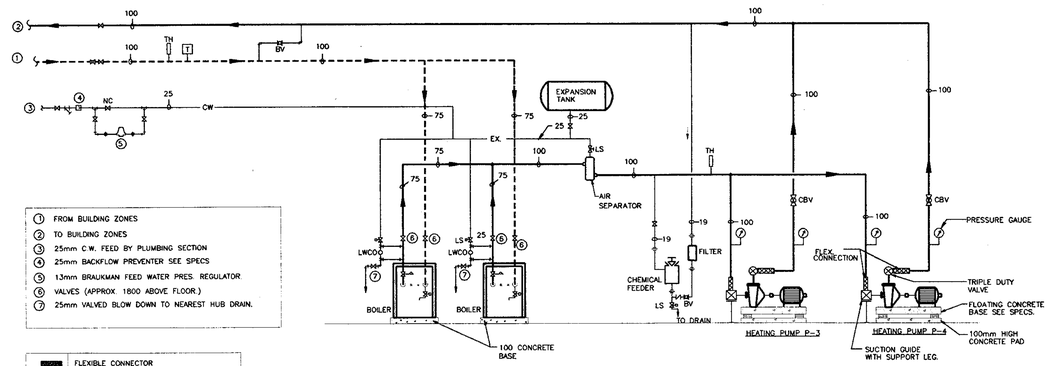
NOTES:

1. PUMPS P-5 & P-6 SHALL BE CONTROLLED FROM PLC. SEE I/O POINT SCHEDULE
2. DIVISION 17 SHALL PROVIDE CONTROL WIRING BETWEEN PUMPS STARTERS, FLOW SWITCH AND PLC.
3. SEE DIVISION 17 SPEC. FOR TEMPERATURE SENSORS



FRESH AIR COIL HOOK-UP DETAIL (HEAT RECLAIM UNIT)

N.T.S.



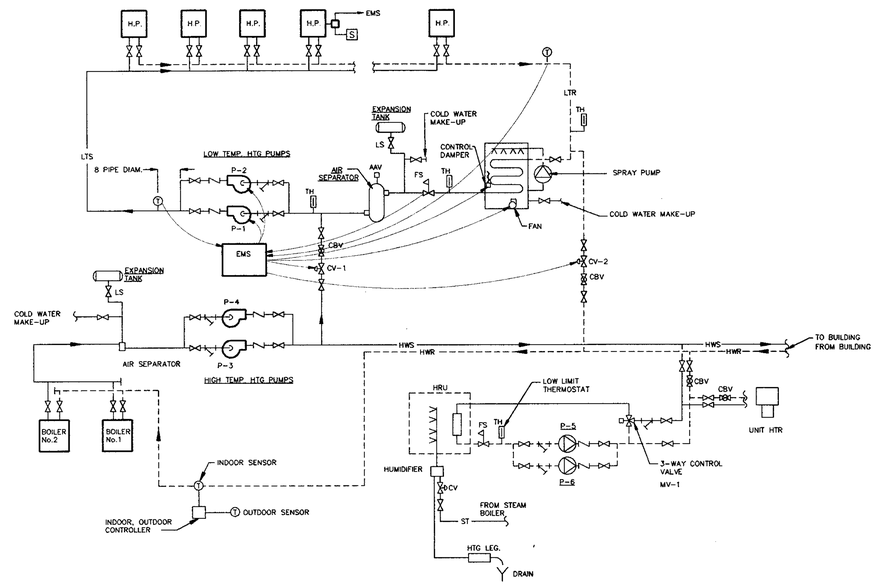
1. FROM BUILDING ZONES
2. TO BUILDING ZONES
3. 25mm C.W. FEED BY PLUMBING SECTION
4. 25mm BACKFLOW PREVENTER SEE SPECS
5. 13mm BRAUKMAN FEED WATER PRES. REGULATOR
6. VALVES (APPROX. 1800 ABOVE FLOOR.)
7. 25mm VALVED BLOW DOWN TO NEAREST HUB DRAIN.

	FLEXIBLE CONNECTOR
	FLOW SWITCH
⊗	TRIPLE-DUTY VALVE. MOUNT 1500 mm ABOVE FLR. SUPPORT FROM CLG. W/ SPRING HANGER (S)
	L.S. DRAIN VALVE
	BALANCING VALVE. ADJUST TO PROPER FLOW (L/S).
TH	THERMOMETER
T	INDOOR SENSOR BOILER WATER TEMP. CTL.

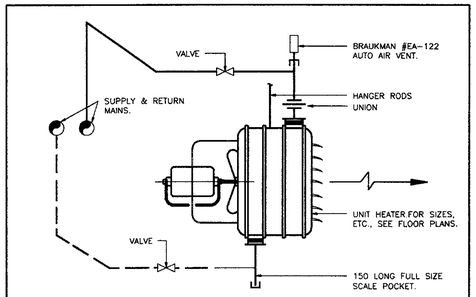
* = MIN. LENGTH OF 6X PIPE SIZE
** UNION OR FLANGE CONNECTION TO BOILER

SCHEMATIC OF BALANCED HOT WATER HEATING PIPING SYSTEM

NTS



MECHANICAL ROOM PIPING SCHEMATIC N.T.S.



TYPICAL HORIZONTAL UNIT HEATER PIPING DETAIL N.T.S.

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100 FAX: (416)507-4107

BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.

No.	Date	Description
1	FEB. 07 1994	ISSUED FOR TENDER

Revisions

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

DETAILS

HVAC

R.H. CARTER ARCHITECTS INC.
SUITE 200 897 KIPLING AVENUE
ETOBICOKE ONTARIO M8Z 5H3
TEL 416-233-5583 FAX 416-233-5585

REGISTERED PROFESSIONAL ENGINEER
D. JAIN
PROVINCE OF ONTARIO
93-121

True North / Dwg. North	
Scale	AS SHOWN
Date	FEB. 4, 1994
Printed	FEB. 4, 1994
Project No.	92-56
Dwg. No.	M-9

MECHANICAL EQUIPMENT STARTER AND ELECTRICAL DATA SCHEDULE

EQUIPMENT & LABEL	STARTER LOCATION	UNIT H.P. OR KW	UNIT PHASE	UNIT VOLTAGE	STARTER TYPE	FUSED	PILOT LIGHT ON/OFF SW.	ON/OFF SW. C/W PILOT LIGHT	START/STOP P.B.	H-O-A SELECTOR SWITCH C/W PILOT LIGHT	TRANSFORMER	CONTACTOR & O.L. RELAY	THERMISTOR	THERMOSTAT LOCATION REQUIRED	FIRE STAT	MANUAL RESET HIGH LIMIT	E.M.S.	REMARKS
HEAT RECOVERY UNIT	MECH. RM	MCA 230	3	208	MAGNETIC IN UNIT PANEL								●				●	ELECTRICAL DIVISION WILL WIRE TO PANEL
EVAP. WATER COOLER FAN	MECH. RM	14.9	3	208	MAGNETIC	●	●			●	●					●	●	ELECTRICAL DIVISION WILL WIRE TO PANEL.
EVAP. WATER COOLER CAPACITY CONTROL DAMPERS	MECH. RM	AMP 5	1	115	MANUAL											●	●	ELECTRICAL DIVISION WILL WIRE TO UNIT PANEL
EVAP. WATER COOLER SPRAY WATER PUMP	MECH. RM	1.1	3	208	MAGNETIC	●	●			●	●					●	●	ELECTRICAL DIVISION WILL WIRE TO UNIT PANEL
EVAP. WATER COOLER INLET & OUTLET DAMPERS	MECH. RM	AMP 15	1	115	MANUAL											●	●	ELECTRICAL DIVISION WILL PROVIDE 120V OUTLET ADJACENT
EVAP. WATER COOLER CHEMICAL FEED SYSTEM	MECH. RM	AMP 15	1	115	MANUAL													ELECTRICAL DIVISION WILL INSTALL 120V TIMER BY DIV 15 & WIRE TO OUTLET PLUG FOR PUMP
HEATING BOILER # 1 & 2 BUILDING HEATING	MECH RM	AMP 15	1	120	IN UNIT CONTROL PANEL												●	ELECTRICAL DIVISION WILL PROVIDE 120V NON-FUSED DISCONNECT AT MECH. ROOM DOOR
PUMP # P-1 HEAT PUMP SYSTEM LOW TEMP	MECH. RM	KW 7.46	3	208	MAGNETIC	●	●			●	●						●	INTERLOCK TO START FROM HEAT PUMP CONTROL PANEL
PUMP # P-2 HEAT PUMP SYSTEM LOW TEMP. (STAND BY)	MECH. RM	KW 7.46	3	208	MAGNETIC	●	●			●	●						●	INTERLOCK TO START FROM HEAT PUMP CONTROL PANEL
PUMP #P-3 BUILDING HEATING HIGH TEMP.	MECH. RM	KW 2.24	3	208	MAGNETIC	●	●			●	●						●	
PUMP # P-4 BUILDING HEATING HIGH TEMP. (STAND BY)	MECH. RM	KW 2.24	3	208	MAGNETIC	●	●			●	●						●	
PUMP # P-5 HEAT RECOVERY COIL	MECH. RM	WATT 560	3	208	MAGNETIC	●	●			●	●						●	
PUMP # P-6 HEAT RECOVERY COIL (STAND BY)	MECH RM	WATT 560	3	208	MAGNETIC	●	●			●	●						●	
EMS. SYSTEM PANEL	------	AMP 20	1	115	------												●	ELECTRICAL DIVISION WILL PROVIDE 120V OUTLET IN MECH. ROOM
EXHAUST FAN EF-1 TMR # 147	T.M. ROOM	AMP 1.0	1	115	FLUSH MANUAL		●			●							●	
EXHAUST FAN EF-2 WR #141	------	AMP 0.35	1	115	------													ELECTRICAL DIVISION WILL WIRE TO START FROM LIGHT SWITCH
EXHAUST FAN EF-3 W.R. # 138	------	AMP 0.35	1	115	------													DITTO
EXHAUST FAN EF-4 W.R. # 135	------	AMP 0.35	1	115	------													DITTO
EXHAUST FAN EF-5 DAY CARE STOR. # 131	DAY CARE STORAGE	AMP 1.0	1	115	MANUAL		●			●							●	
EXHAUST FAN EF-6 W.R. # 129	------	AMP 0.35	1	115	------													ELECTRICAL DIVISION WILL WIRE TO START FROM LIGHT SWITCH
EXHAUST FAN EF-7 W.R. # 123	------	AMP 1.0	1	115	------													DITTO
EXHAUST FAN EF-8 W.R. # 119	------	AMP 1.0	1	115	------													DITTO
EXHAUST FAN EF-9 WATER FILTRATION	WATER FILTRATION RM	WATT 29.8	1	115	MANUAL		●			●							●	
EXHAUST FAN EF-10 W.R. #107,112 & 113	CUSTODIAN RM 133	WATT 29.8	1	115	FLUSH MANUAL		●			●							●	
EXHAUST FAN EF-11 KITCHEN # 117	KITCHEN	AMP 20	1	115	INTEGRAL													ELECTRICAL DIVISION WILL WIRE TO HOOD
EXHAUST FAN EF-12 STOR #179 & RM #178	STORAGE#179	WATT 74.6	1	115	FLUSH MANUAL		●			●							●	
EXHAUST FAN EF-13 KITCHEN # 162	KITCHEN	WATT 62	1	115	INTEGRAL													ELECTRICAL DIVISION WILL WIRE TO HOOD AND REMOTE FAN
EXHAUST FAN EF-14 SPECIAL EDUCATION # 148	SPECIAL EDUCATION #148	AMP 20	1	115	INTEGRAL													ELECTRICAL DIVISION WILL WIRE TO HOOD
SUPPLY AIR FAN #SF-1 MECH. ROOM	MECH RM	WATT 186.5	1	115	MANUAL		●			●							●	WIRE TO START FROM REVERSE ACTING THERMOSTAT
SEWAGE PUMPS	CUSTODIAN 133	5 HP	3	208	PUMP CONTROL PANEL	●	●			●							●	
BUILDING WATER PUMP	WATER FILTER ROOM 201	2	3	208	MAGNETIC	●	●			●	●					●	●	ELECTRICAL DIVISION TO WIRE LINE SIDE OF PANEL AND FROM PANEL TO SENSOR & MOTOR
BUILDING WATER PUMP	WATER FILTER ROOM 201	2	3	208	MAGNETIC	●	●			●	●					●	●	ELECTRICAL DIVISION TO WIRE LINE SIDE OF PANEL AND FROM PANEL TO SENSOR & MOTOR
WELL PUMP	WATER FILTER ROOM 201	1.2 HP	3	208	MAGNETIC	●	●			●	●						●	ELECTRICAL DIVISION TO WIRE LINE SIDE OF PANEL AND FROM PANEL TO SENSOR & MOTOR
RECIRCULATING PUMP	MECHANICAL ROOM	WATT 62	3	208	MAGNETIC		●											
HOT WATER TANK	MECH RM	AMP 15	-	-														

STARTER SCHEDULE NOTES

S.S. - SELECTOR SWITCH P.B. - PUSH BUTTON H/O/A - HAND-OFF-AUTOMATIC P.L. - PILOT LIGHT.

1. SEE "WIRING & MOTORS" IN MECHANICAL GENERAL REQUIREMENTS FOR FULL DETAILS OF STARTERS, FUSES, OVERLOAD HEATERS, ETC.
2. LABEL ON STARTERS FOR EQUIPMENT, FANS ETC., SHALL BE AS NOTED IN THEIR SCHEDULES. SEE SPECIFICATIONS FOR DETAIL.
3. INTERLOCKS, FIRE, FREEZE & SAFETY CONTROL WIRING SHALL BE BY TEMPERATURE CONTROL TRADE. SEE SPECIFICATIONS FOR DETAIL.

SILENCER SCHEDULE

No.	SERVICE	MODEL	L/S	PRESSURE DROP(Pa)	SIZE WxHxL	INSERTION LOSS 2	3	4	5	6	7	8	REMARKS
S-1	H.R.U. SUPPLY	10RSS-O	7552	75	1500x700x1500	13	27	40	50	50	50	32	
S-2	H.R.U. RETURN	10RSS-O	7930	75	1500x750x1500	13	27	40	50	50	50	32	
S-3	HEAT PUMP # 26 SUPPLY	10RSS-O	944	62	700x250x1500	10	23	36	50	50	46	27	
S-4	HEAT PUMP # 26 SUPPLY	14RSS-O	1888	62	850x350x1500	10	17	28	42	38	27	16	
S-5	HEAT PUMP # 26 SUPPLY	10RSS-O	944	62	700x250x1500	10	23	36	50	50	46	27	
S-6	HEAT PUMP # 26 RETURN	10RSS-O	2124	62	750x450x1500	13	27	40	50	50	50	32	
S-7	HEAT PUMP # 26 RETURN	10RSS-O	2124	62	750x450x900	7	16	29	38	47	44	24	
S-8	HEAT PUMP # 25 SUPPLY	12RSS-O	1416	62	600x350x1500	9	19	35	50	45	40	20	
S-9	HEAT PUMP # 25 RETURN	12RSS-O	1416	62	600x350x1500	12	25	39	50	50	44	24	

HEAT PUMP SCHEDULE

UNIT NO.	AREA SERVED & LABEL	MODEL NO.	COOLING CAPACITY (KW)	HEATING CAPACITY (KW)	AIR FLOW (L/S)	EXT. SP (KPa)	FAN (w)	WATER FLOW (L/S)	WATER P.D. (METERS)	ELECTRICS TOTAL FLA	VOLT	MCA	F.A. (L/S)	UNIT WT (KG)	FUSE SIZE	REMARKS
1	KINDERGARTEN COATS 134 & 136	HS 042	11.782	13.863	590	0.124		0.68	3.55	14.7	208/3/60	17.7	212	105	25	
2	ADMIN. OFFICE 105	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	85	102	25	
3	STAFF RM. 110 COFFEE RM. 111	HS 042	6.712	8.001	382	0.124		0.38	3.42	9.6	208/1/60	12.5	92	91	20	
4	OFFICE 106 HEALTH OFFICE 108	HS 019	5.774	6.506	269	0.124		0.33	2.73	8.8	208/1/60	11.3	50	79	15	
5	SPECIAL EDUC. 148	HS 024	6.712	8.001	382	0.124		0.38	3.42	9.6	208/1/60	12.5	142	91	20	
6	RESOURCE WITHDRAWAL 149	HS 019	5.774	6.506	269	0.124		0.33	2.73	8.8	208/1/60	11.3	94	79	15	
7	CLASS RM. 150	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
8	KINDERGARTEN 142	HS 048	13.482	14.625	826	0.124		0.78	5.15	19.2	208/3/60	22.7	212	132	35	
9	CLASSROOM 151	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
10	KINDERGARTEN 142	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
11	KINDERGARTEN 137	HS 042	11.782	13.863	590	0.124		0.68	3.55	14.7	208/3/60	17.7	212	105	25	
12	CLASSROOM 155	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
13	CLASSROOM 156	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
14	CLASSROOM 182	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
15	CLASSROOM 183	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
16	CLASSROOM 177	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
17	CLASSROOM 184	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
18	CLASSROOM 176	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
19	CLASSROOM 186	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
20	CLASSROOM 175	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
21	CLASSROOM 187	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
22	GUIDANCE 171, 172, 173 & 174	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
23	CLASSROOM 188	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
24	STAGE/LUNCH 159	HS 030	8.177	10.199	437	0.124		0.47	1.97	8.3	208/3/60	10	142	91	20	
25	RESOURCE CENTRE 170	V-080	21.835	20.516	1416	0.249		1.31	4.21	28.2	208/3/60	33.7	238	270	50	
26	G. PURPOSE RM. 163	V-200	57.298	55.944	3776	0.298		3.39	6.36	68.8	208/3/60	75.3	708	575	100	
27	OFFICE & COATS 120 & 121	HS 019	5.774	6.506	269	0.124		0.33	2.73	8.8	208/1/60	11.3	28	79	15	
28	STAFF RM. 122 & PRESCHOOLERS	HS 042	11.782	13.863	590	0.124		0.68	3.55	14.7	208/3/60	17.7	184	105	25	
29	SCHOOLERS 128	HS 030	8.177	10.199	437	0.124		0.47	1.97	8.3	208/3/60	10	113	91	20	
30	FOYER 101	HS 019	5.774	6.506	269	0.124		0.33	2.73	8.8	208/1/60	11.3	30	79	15	

FAN EQUIPMENT SCHEDULE

NUMBER	SERVICE AND LABEL	MAKE OF FAN	MODEL No.	VOL FLOW (L/S)	O.V. (M/S)	S.P. (Pa)	SPEED R.P.S.	TIP SPEED (M/S)	MOTOR kW	PH.	V.	ROT'N	DISCH.	TIMER	ACCESSORIES & REMARKS
EF-1	EXHAUST FAN EF-1 TMR - 147	REVERSOMATIC	BB100	47	—	37.0	25.8	—	AMP. 1.0	1	115				
EF-2	EXHAUST FAN EF-2 W.R. - 141	DITTO	QB60	24	—	37.0	17.5	—	AMP. 0.35	1	115				
EF-3	EXHAUST FAN EF-3 W.R. - 138	DITTO	QB60	24	—	37.0	17.5	—	AMP. 0.35	1	115				
EF-4	EXHAUST FAN EF-4 W.R.-135	DITTO	QB60	24	—	37.0	17.5	—	AMP. 0.35	1	115				
EF-5	EXHAUST FAN EF-5 DAY CARE STOR. - 131	DITTO	BB100	47	—	37.0	25.8	—	AMP. 1.0	1	115				
EF-6	EXHAUST FAN EF-6 W.R. 129	DITTO	QB60	24	—	37.0	17.5	—	AMP. 0.35	1	115				
EF-7	EXHAUST FAN EF-7 W.R. -123	DITTO	BB100	47	—	37.0	25.8	—	AMP. 1.0	1	115				
EF-8	EXHAUST FAN EF-8 W.R. - 119	DITTO	BB100	47	—	37.0	25.8	—	AMP. 1.0	1	115				
EF-9	EXHAUST FAN EF-9 WATER FILTRATION	PENN-DOMEX	XR 60	71	—	62.5	25.8	—	WATT 29.8	1	115				
EF-10	EXHAUST FAN EF-10 W.R. -107,112 & 113	PENN-DOMEX	XR 60	71	—	62.5	25.8	—	WATT 29.8	1	115				
EF-11	EXHAUST FAN EF-11 KITCHEN - 117	NUTONE	V-90 -30 VP 400C	88	—	—	—	—	WATT 120	1	115				ROOF CAP
EF-12	EXHAUST FAN EF-12 STOR.-179 & SBR RM -178	PENN-DOMEX	XR 94	236	—	62.5	25.8	—	WATT 74.6	1	115				
EF-13	EXHAUST FAN EF-13 KITCHEN - 162	PENN-DOMEX	QX60	88	—	75	29.2	—	WATT 62	1	115				HOOD w/o FAN
EF-14	EXHAUST FAN EF-14 SPECIAL EDUCATION	NUTONE	V-80 -30 VP 400C	88	—	—	—	—	WATT 62	1	115				ROOF CAP
SF-1	SUPPLY AIR FAN SF-1 MECH. ROOM	PENN-BREEZWAY	P16 0	292	—	62.5	28.7	—	WATT 186.5	1	115				MOTORIZED DAMPER

CIRCULATING PUMP SCHEDULE

NO:	SYSTEM SERVED & PUMP LABEL	MODEL	SIZE	FLOW (L/S)	HEAD (M)	MOTOR KW	MOTOR R.P.S.	REMARKS
P-1	PUMP # P-1 HEAT PUMP SYSTEM LOW TEMP.	ARMSTRONG 4030	150X100X200	20.2	18.3	7.46	30	
P-2	PUMP # P-2 HEAT PUMP SYSTEM LOW TEMP.	ARMSTRONG 4030	150X100X200	20.2	18.3	7.46	30	
P-3	PUMP #P-3 BUILDING HEATING HIGH TEMP.	ARMSTRONG 4030	80X50X200	7.0	16.7	2.24	30	
P-4	PUMP #P-4 BUILDING HEATING	ARMSTRONG 4030	80X50X200	7.0	16.7	2.24	30	
P-5	PUMP #P-5 HEAT RECOVERY COIL	ARMSTRONG CIRCULATOR	S57	5.0	4.6	0.56	30	
P-6	PUMP #P-6 HEAT RECOVERY COIL	ARMSTRONG CIRCULATOR	S57	5.0	4.6	0.56	30	

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE (416)507-4100 FAX (416)507-4107

BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.

No.	Date	Description
1	FEB. 07 1994	ISSUED FOR TENDER

Revisions

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL
FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

SCHEDULES

HVAC

R.H. CARTER ARCHITECTS INC.
SUITE 200 897 KIPLING AVENUE
ETOBICOKE ONTARIO M8Z 5H3
TEL 416-233-5583 FAX 416-233-5285

REGISTERED PROFESSIONAL ENGINEER D. JAIN PROVINCE OF ONTARIO

93-121

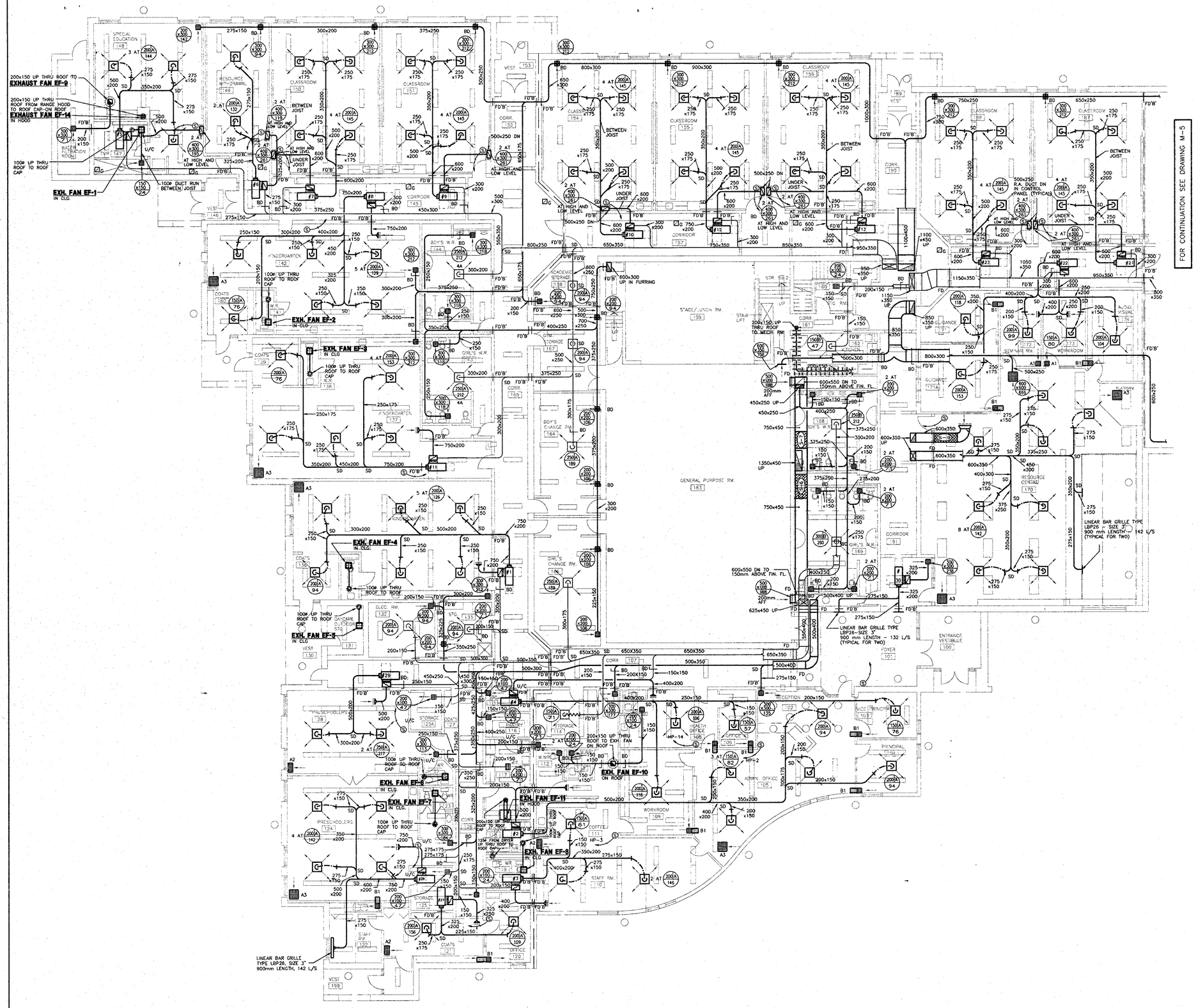
True North	Dwg. North
Scale	N.T.S.
Date	FEB. 4, 1994
Printed	FEB. 4, 1994
Project No.	92-56
Dwg. No.	M-10

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100 FAX: (416)507-4107

BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.



FLOOR PLAN - DUCTWORK

SCALE 1 : 100

H.V.A.C. LEGEND

HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
LWS	LOW TEMP. WATER SUPPLY
LTR	LOW TEMP. WATER RETURN
ST	STEAM LINE
C	CONDENSATE PUMP DISCHARGE
G	GAS LINE
CBV	CIRCUIT BALANCING VALVE(SEE SPEC)
EX	EXPANSION LINE
SCV	SHUT OFF VALVE
CV	SELF CONTAINED VALVE
	CONTROL VALVE
	CHECK VALVE
	ANCHORS
	UNION
	STRAINER
	EXPANSION JOINT & GUIDES SEE DETAIL
	3-WAY CONTROL VALVE
T	THERMOSTAT
H	HUMIDISTAT
S	SENSOR
S G	SENSOR WITH GUARD
H G	HUMIDISTAT WITH GUARD
TH	THERMOMETER
SD V V V V V	STEAM DISTRIBUTOR
	STEAM TRAP & DRIP
C.O.	CLEAN OUT
U/C	UNDER CUT DOOR BY ANOTHER TRADE SECTION.
	SPLITTER DAMPER
B.D.	BALANCING DAMPER
F.D.	FIRE DAMPER
	SHADING DENOTES SOUND LINING (SEE SPECS).
	DENOTES SILENCER
	SOUND LINING
	SOUND JACKETING
	BLANK OFF SHADED PORTION OF DIFFUSER
A.D	ACCESS DOOR
A.D	TURNING VANES (DOUBLE THICKNESS-SEE SPECS).
	FIRE PROOFING
4 M-6	DETAIL OR SECTION NUMBER DETAIL OR SECTION SHEET LOCATION
300 x200 100	GRILLE SIZE (SUPPLY) L/S
300 x200 100	GRILLE SIZE (RETURN OR EXH.) L/S
250A 350	SIZE TYPE OF DIFFUSER L/S
G	GAS VENT GRILLE SIZE 300x300
F.S.F.	FIRE STOP FLAP
S.D.	SPLITTER DAMPER
FC	FLEX. CONNECTION
	OPEN END DUCT C/W 13mm MESH SCREEN
A1	300x300 RETURN AIR GRILLE
A2	300x600 RETURN AIR GRILLE
A3	600x600 RETURN AIR GRILLE
B1	300x300 RETURN AIR GRILLE c/w SOUNDLINED 300x200x900 LONG OPEN END DUCT
B2	300x600 RETURN AIR GRILLE c/w SOUNDLINED 600x200x1200 LONG OPEN END DUCT
B3	600x600 RETURN AIR GRILLE c/w SOUNDLINED 600x300x1200 LONG OPEN END DUCT
C1	400x400 SOUNDLINED ELBOW DUCT THRU WALL
S1	600x300 TRANSFER GRILLES c/w SOUNDLINED 600x200 INTERCONNECTING DUCT MIN 1200 LONG OVERALL
SD	SMOKE DETECTOR

No.	Date	Description
Revisions		

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

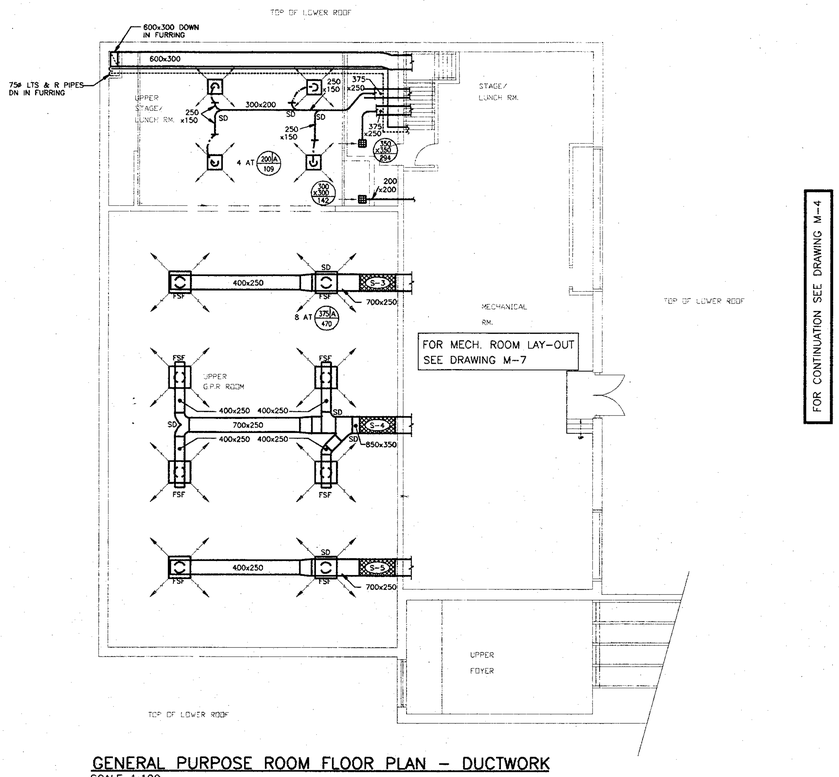
FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

FLOOR PLAN
HVAC

93-121

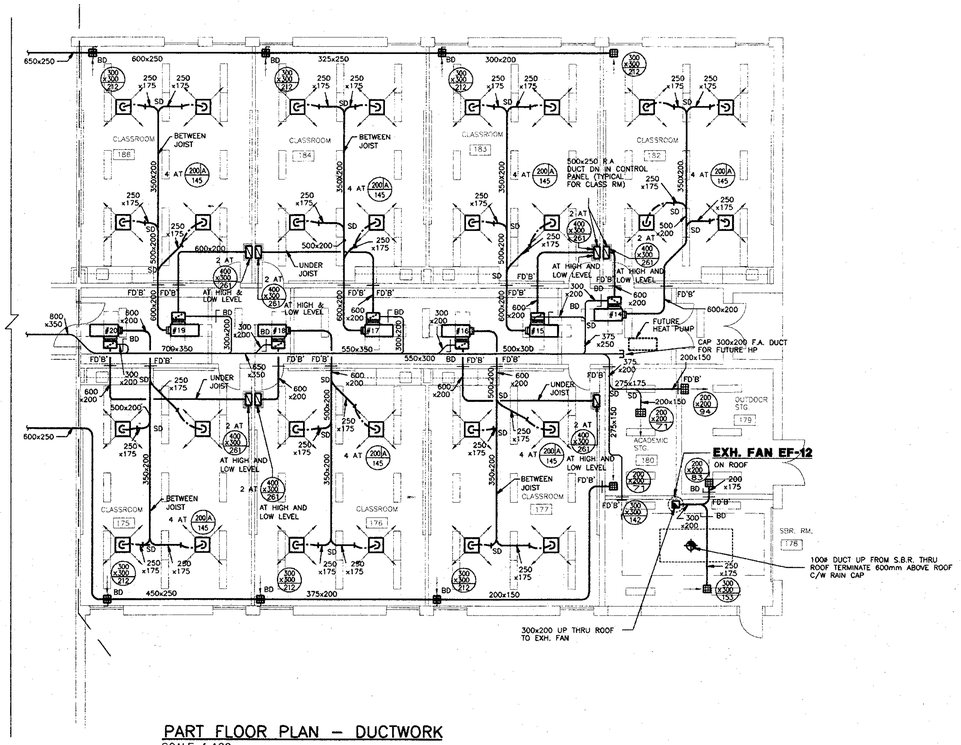
True North / Dwg. North	
Scale	1:100
Date	JULY 19, 1993
Printed	
Project No. 92-56	Dwg. No. M-4

FEB. 3, 1994



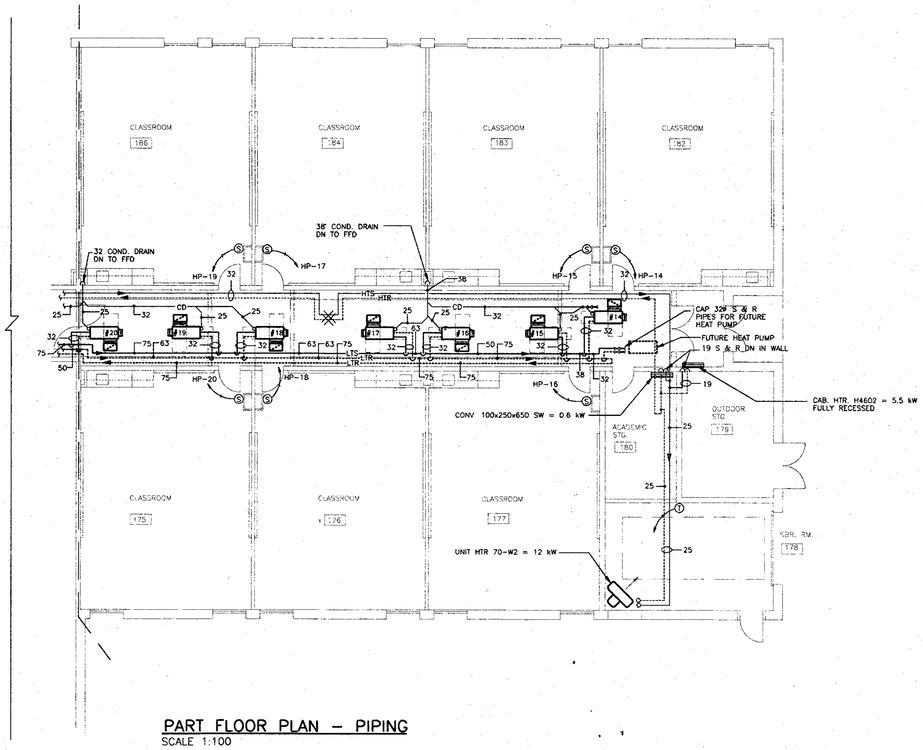
GENERAL PURPOSE ROOM FLOOR PLAN – DUCTWORK
SCALE 1:100

FOR CONTINUATION SEE DRAWING M-4



PART FLOOR PLAN – DUCTWORK
SCALE 1:100

FOR CONTINUATION SEE DRAWING M-6



PART FLOOR PLAN – PIPING
SCALE 1:100

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100
FAX: (416)507-4107

BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.

No	Date	Description
Revisions		

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

FLOOR PLANS
HVAC

93-121

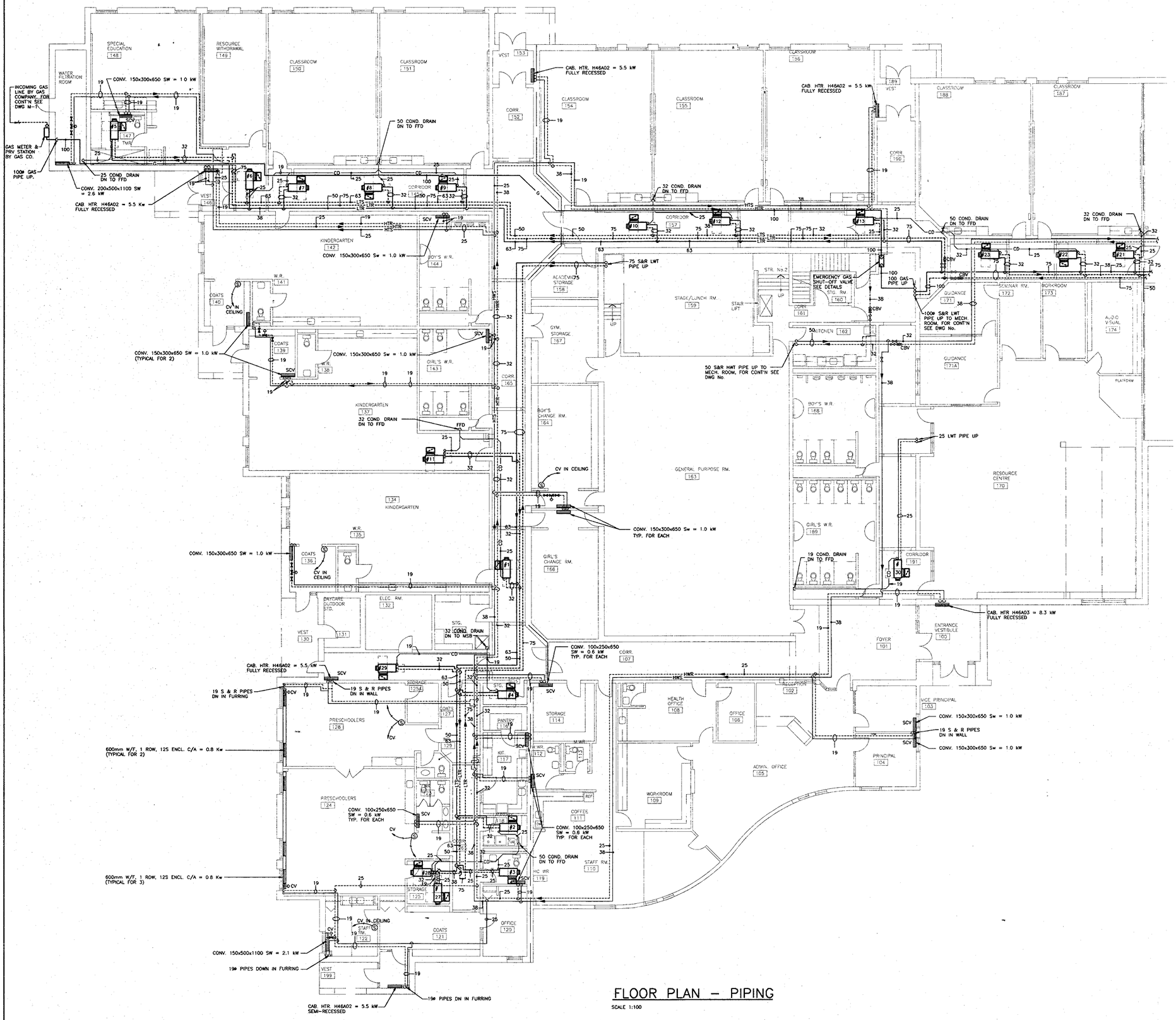
True North / Dwg. North	
Scale	1:100
Date	JULY 19, 1993
Printed	AUG. 18, 1993
Project No.	92-56
Dwg. No.	M-5

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100
FAX: (416)507-4107

BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.



FOR CONTINUATION SEE DRAWING M-5

FLOOR PLAN – PIPING

SCALE 1:100

No.	Date	Description
Revisions		

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

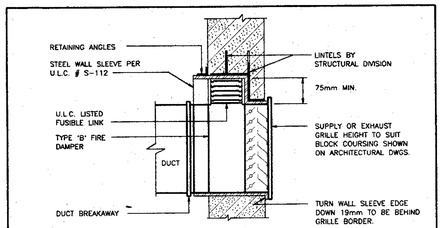
FLOOR PLAN

PIPING – HVAC

93-121

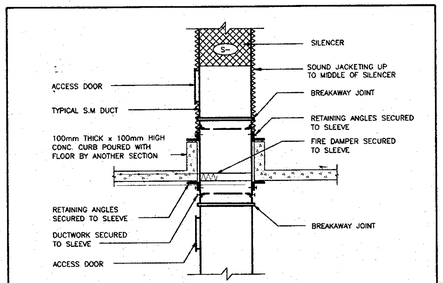
True North	Dwg. North
Scale	1:100
Date	JULY 19, 1993
Printed	AUG. 18, 1993
Project No. 92-56	Dwg. No. M-6

FEB. 3, 1994



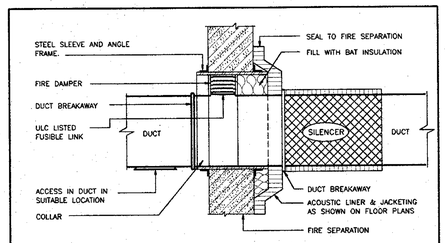
TYPICAL DETAIL OF TYPE 'B' FIRE DAMPER IN WALL

N.T.S.



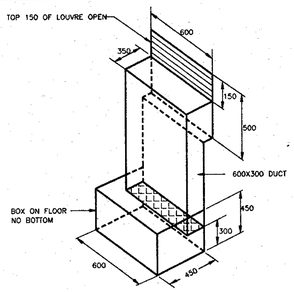
TYPICAL DUCT THRU MECHANICAL RM FLOOR

N.T.S.

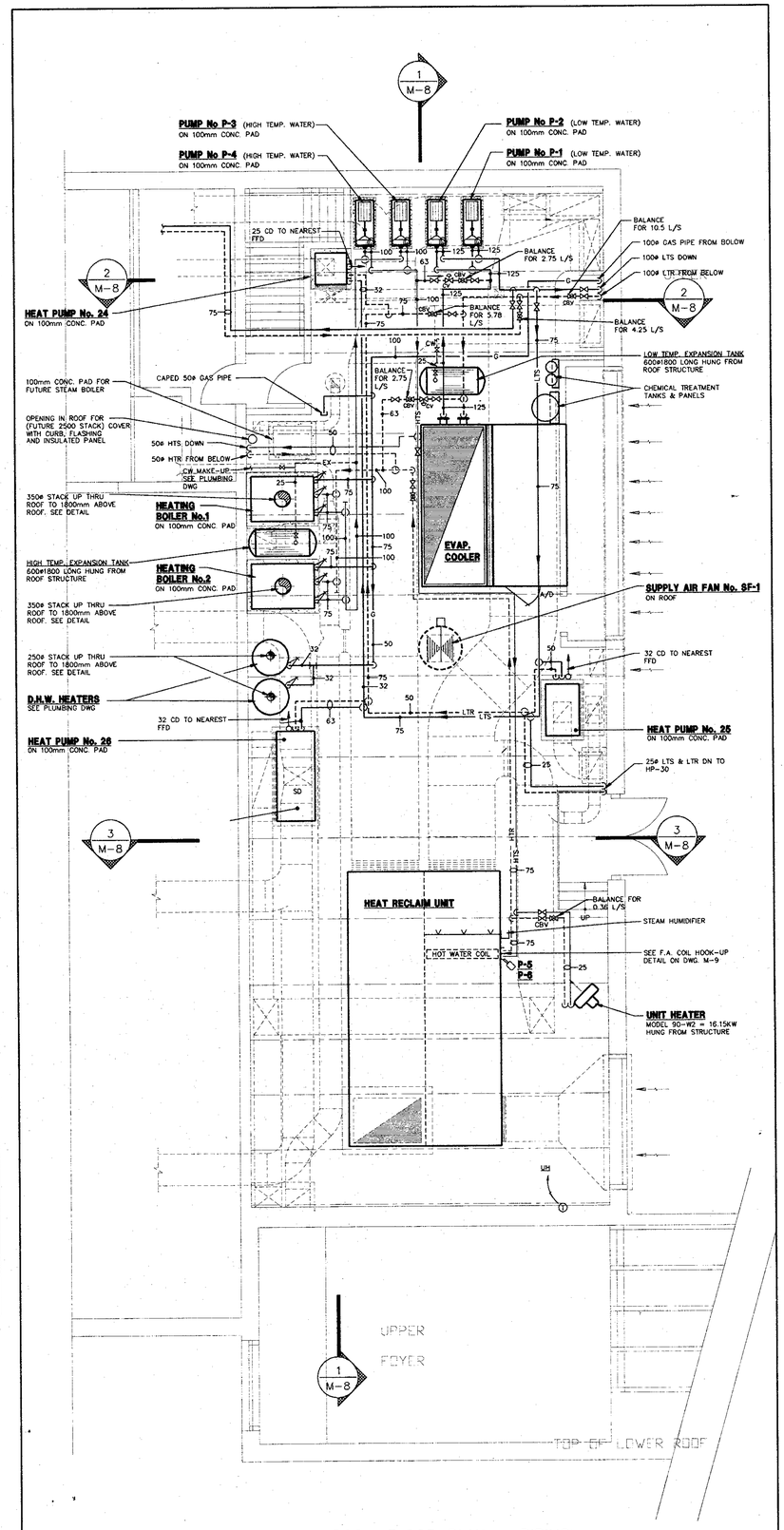


TYPICAL SILENCER & FIRE DAMPER INSTALLATION

N.T.S.

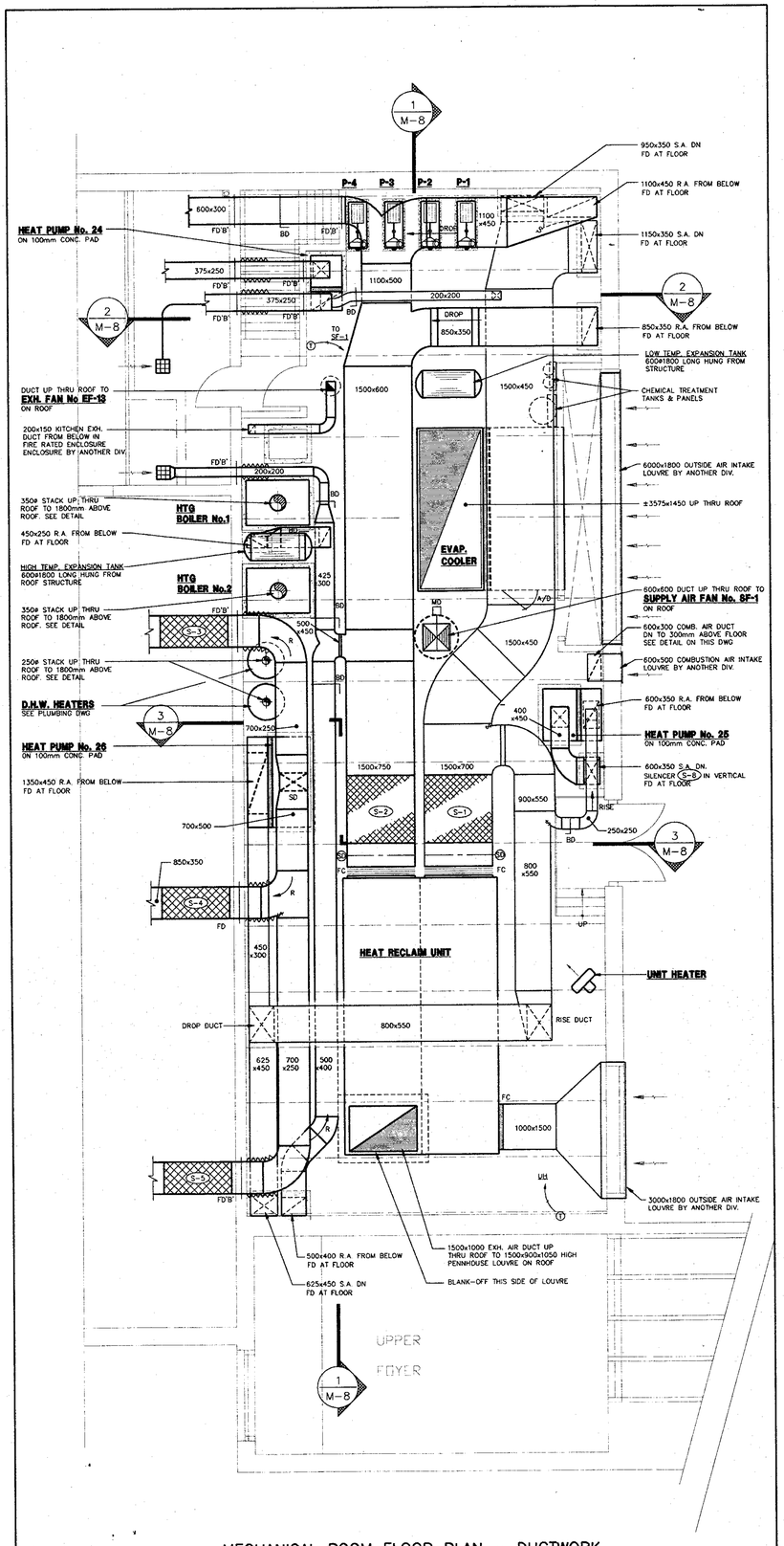


COMBUSTION AIR INLET DETAIL N.T.S.



MECHANICAL ROOM FLOOR PLAN – PIPING

SCALE 1:100



MECHANICAL ROOM FLOOR PLAN – DUCTWORK

SCALE 1:100

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100
FAX: (416)507-4107

BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.

1	AUG 18 1993	ISSUED FOR TENDER

Revisions

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

MECH. RM FL. PLANS
HVAC

93-121

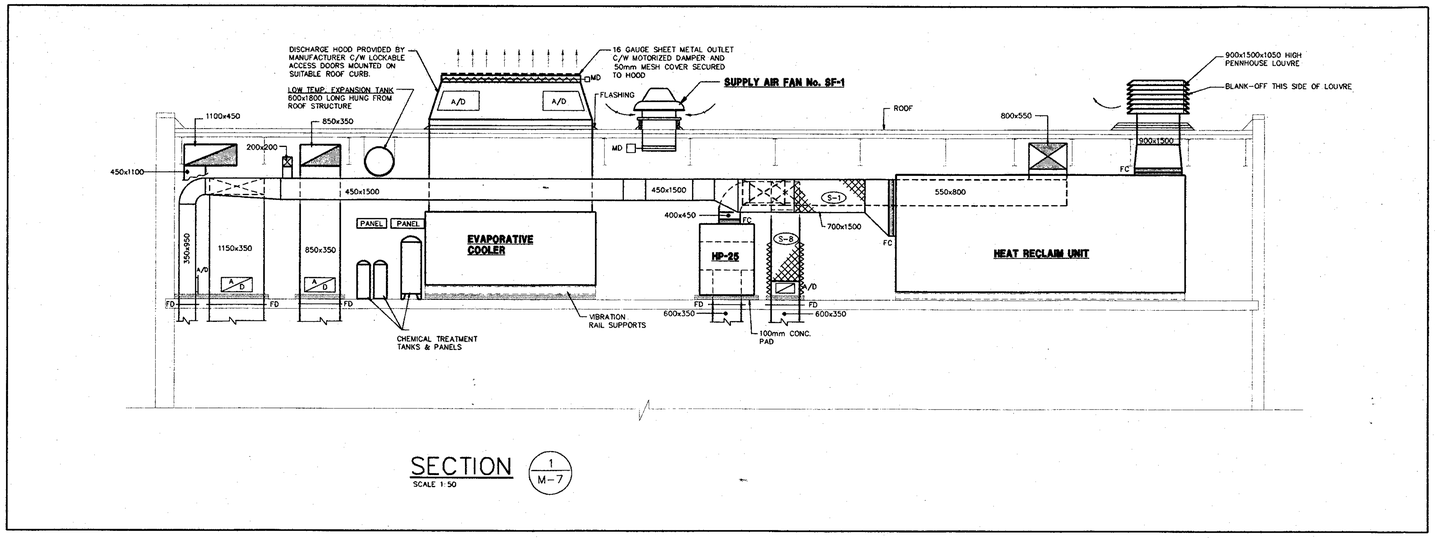
True North	Dwg. North
Scale 1:50	
Date JULY 19, 1993	
Printed FEB. 2, 1994	
Project No. 92-56	Dwg. No. M-7

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100
FAX (416)507-4107

BEFORE COMMENCING WORK

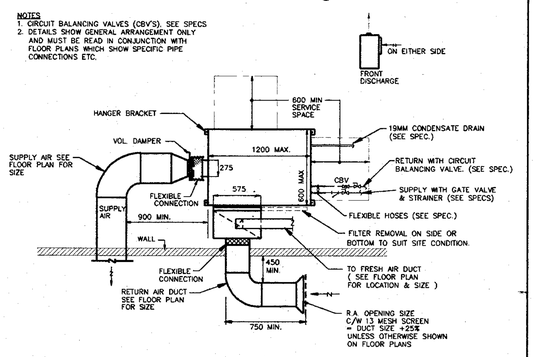
CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.

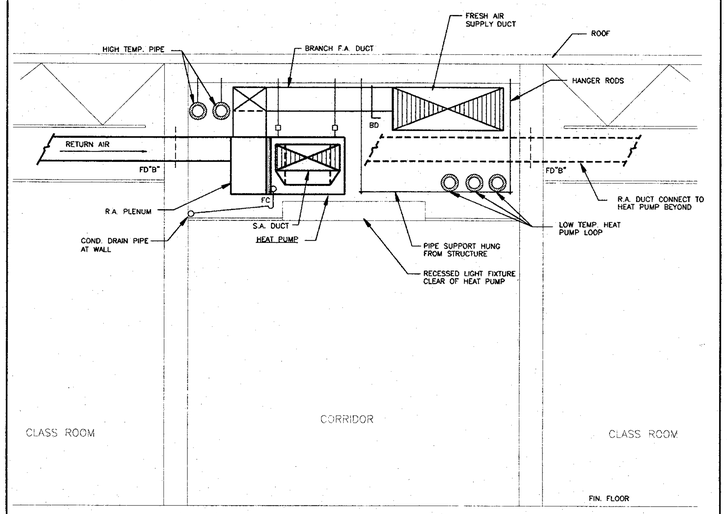


SECTION (1/M-7)
SCALE 1:50

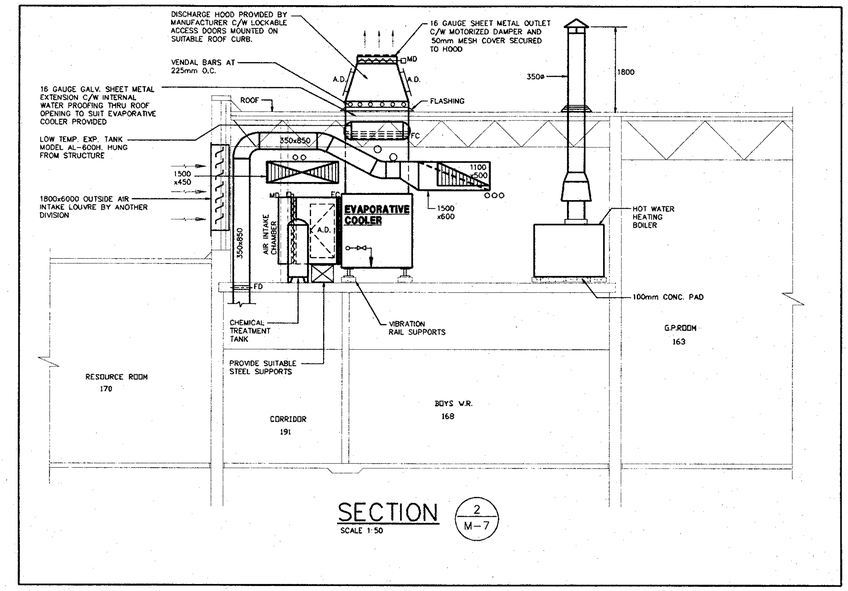
NOTES
1. CIRCUIT BALANCING VALVES (CBV'S). SEE SPECS.
2. DETAILS SHOW GENERAL ARRANGEMENT ONLY AND MUST BE READ IN CONJUNCTION WITH FLOOR PLANS WHICH SHOW SPECIFIC PIPE CONNECTIONS ETC.



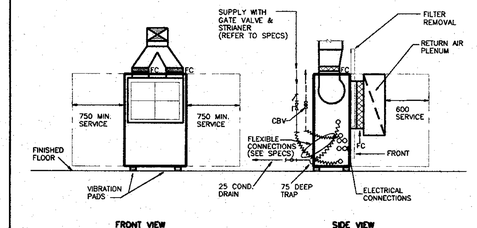
TYPICAL HORIZONTAL HEAT PUMP DETAIL N.T.S.



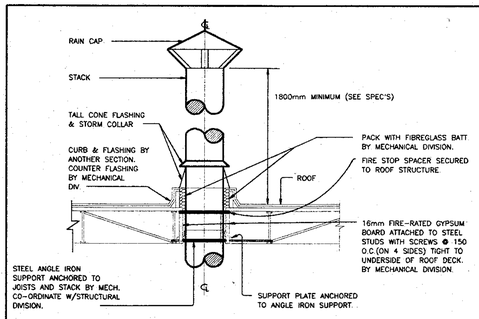
TYPICAL SECTION THRU CORRIDOR N.T.S.



SECTION (2/M-7)
SCALE 1:50

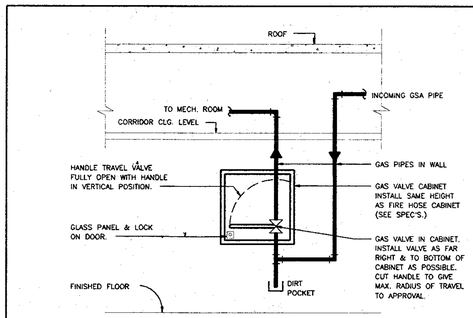


TYPICAL VERTICAL HEAT PUMP DETAIL N.T.S.

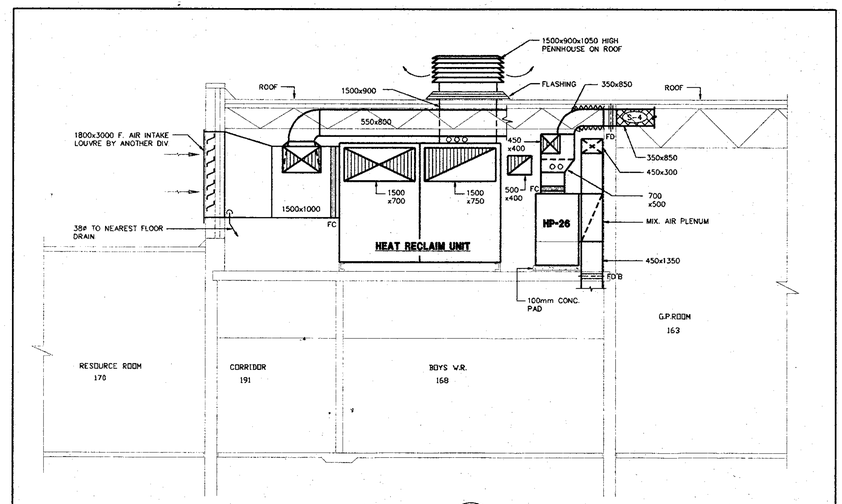


TYPICAL HORIZONTAL HEAT PUMP DETAIL N.T.S.

TYPICAL STACK SUPPORT DETAIL N.T.S.



EMERGENCY GAS SHUT-OFF VALVE CABINET DETAIL
N.T.S.



SECTION (3/M-7)
SCALE 1:50

No.	Date	Description
Revisions		

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL
FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

SECTIONS & DETAILS
HVAC

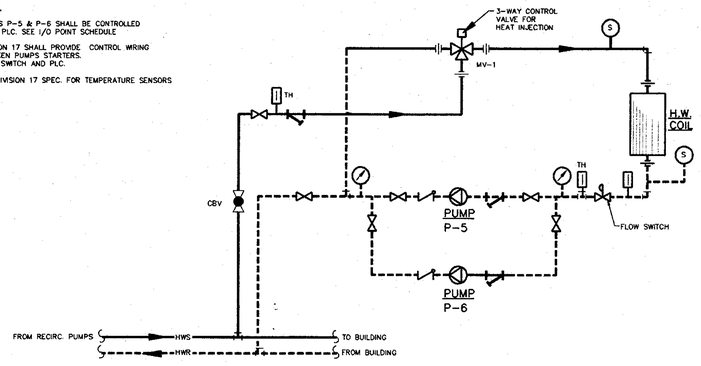
93-121

True North	Dwg. North
Scale	AS NOTED
Date	JULY 19, 1993
Printed	
Project No. 92-56	Dwg. No. M-8

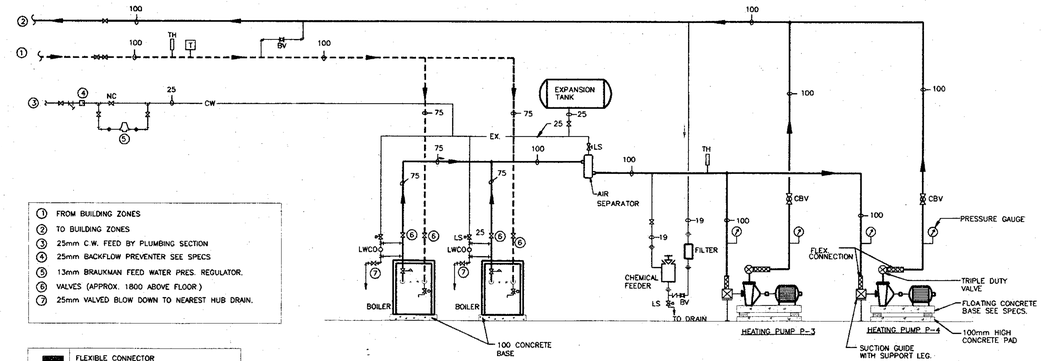
JAN 25, 1994

NOTES:

1. PUMPS P-5 & P-6 SHALL BE CONTROLLED FROM PLC. SEE I/O POINT SCHEDULE
2. DIVISION 17 SHALL PROVIDE CONTROL WIRING BETWEEN PUMPS STARTERS, FLOW SWITCH AND PLC.
3. SEE DIVISION 17 SPEC. FOR TEMPERATURE SENSORS



FRESH AIR COIL HOOK-UP DETAIL (HEAT RECLAIM UNIT)
N.T.S.

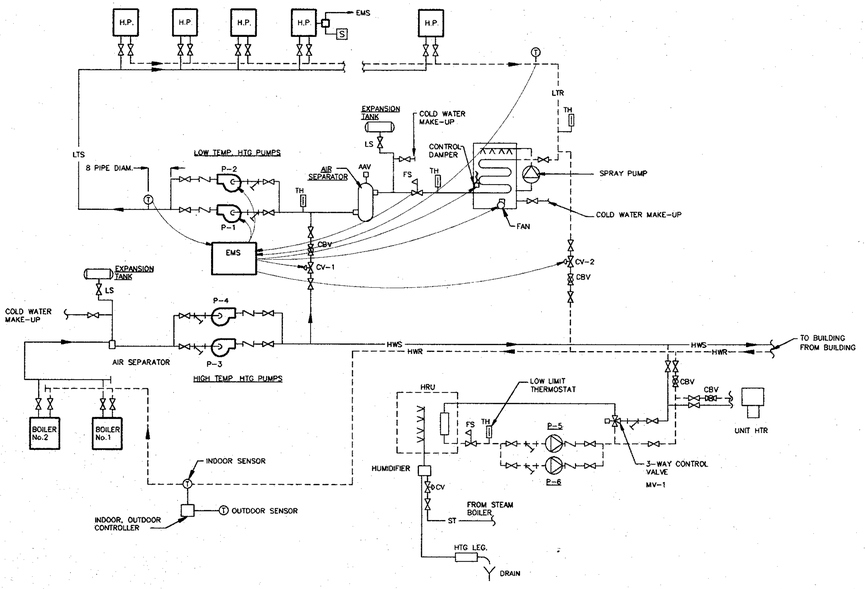


1. FROM BUILDING ZONES
2. TO BUILDING ZONES
3. 25mm C.W. FEED BY PLUMBING SECTION
4. 25mm BACKFLOW PREVENTER SEE SPECS
5. 13mm BRAUKMAN FEED WATER PRES. REGULATOR.
6. VALVES (APPROX. 1800 ABOVE FLOOR)
7. 25mm VALVED BLOW DOWN TO NEAREST HUB DRAIN.

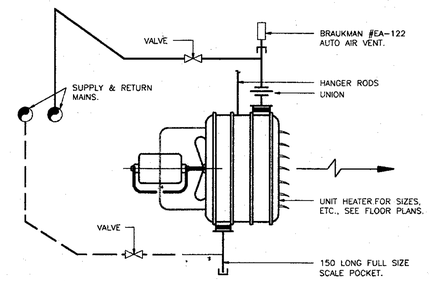
	FLEXIBLE CONNECTOR
	FLOW SWITCH
	TRIPLE-DUTY VALVE. MOUNT 1500 mm ABOVE FLR. SUPPORT FROM CLG. W/ SPRING HANGER.(S)
	L.S. DRAIN VALVE
	BALANCING VALVE. ADJUST TO PROPER FLOW (L/S).
TH	THERMOMETER
T	INDOOR SENSOR BOILER WATER TEMP. CTL.

* = MIN. LENGTH OF 6X PIPE SIZE
** = UNION OR FLANGE CONNECTION TO BOILER

SCHEMATIC OF BALANCED HOT WATER HEATING PIPING SYSTEM
NTS



MECHANICAL ROOM PIPING SCHEMATIC N.T.S.



TYPICAL HORIZONTAL UNIT HEATER PIPING DETAIL N.T.S.

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100
FAX: (416)507-4107

BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.

No.	Date	Description
Revisions		

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL
FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

DETAILS

HVAC

93-121

True North	Dwg. North
Scale: AS SHOWN	
Date: JULY 19, 1993	
Printed: AUG. 18, 1993	
Project No. 92-56	Dwg No. M-9

MECHANICAL EQUIPMENT STARTER AND ELECTRICAL DATA SCHEDULE

EQUIPMENT & LABEL	STARTER LOCATION	UNIT H.P. OR KW	UNIT PHASE	UNIT VOLTAGE	STARTER TYPE	FUSED	PILOT LIGHT	ON/OFF SELECTOR SWITCH	START/STOP P.B.	H/O/A SELECTOR SWITCH	120V CONTROL	LOCKING TYPE DISCONNECT SWITCH	H.P. & P.L. STATION	THERMISTOR OVERLOAD POWER REQUIRED	FIRE STAT	MOTORIZED DAMPER	E.M.S.	REMARKS
HEAT RECOVERY UNIT	MECH. RM	MCA 230	3	208	MAGNETIC IN UNIT PANEL									•			•	ELECTRICAL DIVISION WILL WIRE TO PANEL
EVAP. WATER COOLER FAN	MECH. RM	14.9	3	208	MAGNETIC	•	•			•	•							ELECTRICAL DIVISION WILL WIRE TO PANEL.
EVAP. WATER COOLER CAPACITY CONTROL DAMPERS	MECH. RM	AMP 5	1	115	MANUAL												•	ELECTRICAL DIVISION WILL WIRE TO UNIT PANEL
EVAP. WATER COOLER SPRAY WATER PUMP	MECH. RM	1.1	3	208	MAGNETIC	•	•			•	•							ELECTRICAL DIVISION WILL WIRE TO UNIT PANEL
EVAP. WATER COOLER INLET & OUTLET DAMPERS	MECH. RM	AMP 15	1	115	MANUAL												•	ELECTRICAL DIVISION WILL PROVIDE 120V OUTLET ADJACENT
EVAP. WATER COOLER CHEMICAL FEED SYSTEM	MECH. RM	AMP 15	1	115	MANUAL													ELECTRICAL DIVISION WILL INSTALL 120V TIMER BY DIV. 15 & WIRE TO OUTLET PLUG FOR PUMP
HEATING BOILER # 1 & 2 BUILDING HEATING	MECH. RM	AMP 15	1	120	IN UNIT CONTROL PANEL												•	ELECTRICAL DIVISION WILL PROVIDE 120V NON-FUSED DISCONNECT AT MECH. ROOM DOOR
PUMP # P-1 HEAT PUMP SYSTEM LOW TEMP.	MECH. RM	KW 7.46	3	208	MAGNETIC	•	•			•	•						•	INTERLOCK TO START FROM HEAT PUMP CONTROL PANEL
PUMP # P-2 HEAT PUMP SYSTEM LOW TEMP. (STAND BY)	MECH. RM	KW 7.46	3	208	MAGNETIC	•	•			•	•						•	INTERLOCK TO START FROM HEAT PUMP CONTROL PANEL
PUMP #P-3 BUILDING HEATING HIGH TEMP.	MECH. RM	KW 2.24	3	208	MAGNETIC	•	•			•	•						•	
PUMP # P-4 BUILDING HEATING HIGH TEMP. (STAND BY)	MECH. RM	KW 2.24	3	208	MAGNETIC	•	•			•	•						•	
PUMP # P-5 HEAT RECOVERY COIL	MECH. RM	WATT 560	3	208	MAGNETIC	•	•			•	•						•	
PUMP # P-6 HEAT RECOVERY COIL (STAND BY)	MECH. RM	WATT 560	3	208	MAGNETIC	•	•			•	•						•	
EMS. SYSTEM PANEL	-----	AMP 20	1	115	-----												•	ELECTRICAL DIVISION WILL PROVIDE 120V OUTLET IN MECH. ROOM
EXHAUST FAN EF-1 TMR # 147	T.M. ROOM	AMP 1.0	1	115	FLUSH MANUAL		•			•							•	
EXHAUST FAN EF-2 WR #141	-----	AMP 0.35	1	115	-----													ELECTRICAL DIVISION WILL WIRE TO START FROM LIGHT SWITCH
EXHAUST FAN EF-3 W.R. # 138	-----	AMP 0.35	1	115	-----													DITTO
EXHAUST FAN EF-4 W.R. # 135	-----	AMP 0.35	1	115	-----													DITTO
EXHAUST FAN EF-5 DAY CARE STOR. # 131	DAY CARE STORAGE	AMP 1.0	1	115	MANUAL		•			•							•	
EXHAUST FAN EF-6 W.R. # 129	-----	AMP 0.35	1	115	-----													ELECTRICAL DIVISION WILL WIRE TO START FROM LIGHT SWITCH
EXHAUST FAN EF-7 W.R. # 123	-----	AMP 1.0	1	115	-----													DITTO
EXHAUST FAN EF-8 W.R. # 119	-----	AMP 1.0	1	115	-----													DITTO
EXHAUST FAN EF-9 WATER FILTRATION	WATER FILTRATION RM	WATT 29.8	1	115	MANUAL		•			•							•	
EXHAUST FAN EF-10 W.R. #107,112 & 113	CUSTODIAN RM 133	WATT 29.8	1	115	FLUSH MANUAL		•			•							•	
EXHAUST FAN EF-11 KITCHEN # 117	KITCHEN	AMP 20	1	115	INTEGRAL													ELECTRICAL DIVISION WILL WIRE TO HOOD
EXHAUST FAN EF-12 STOR. #179 & SBR. RM. #178	STORAGE#179	WATT 74.6	1	115	FLUSH MANUAL		•										•	
EXHAUST FAN EF-13 KITCHEN # 162	KITCHEN	WATT 62	1	115	INTEGRAL													ELECTRICAL DIVISION WILL WIRE TO HOOD AND REMOTE FAN
EXHAUST FAN EF-14 SPECIAL EDUCATION # 148	SPECIAL EDUCATION #148	AMP 20	1	115	INTEGRAL													ELECTRICAL DIVISION WILL WIRE TO HOOD
SUPPLY AIR FAN #SF-1 MECH. ROOM	MECH.RM	WATT 186.5	1	115	MANUAL		•			•							•	WIRE TO START FROM REVERSE ACTING THERMOSTAT
SUMP PUMPS	WATER FIL. ROOM	1/3	1	115	PUMP PANEL		•			•								ELECTRICAL DIVISION TO WIRE LINE SIDE OF PANEL ONLY
SUMP PUMPS	SBR ROOM	1/3	1	115	PUMP PANEL		•			•								ELECTRICAL DIVISION TO WIRE LINE SIDE OF PANEL ONLY
RECIRC. PUMP	MECH. ROOM	WATT 124	1	115	MANUAL		•											

S.S. - SELECTOR SWITCH P.B. - PUSH BUTTON H/O/A - HAND-OFF-AUTOMATIC P.L. - PILOT LIGHT.

1 SEE "WIRING & MOTORS" IN MECHANICAL GENERAL REQUIREMENTS FOR FULL DETAILS OF STARTERS, FUSES, OVERLOAD HEATERS, ETC.
2. LABEL ON STARTERS FOR EQUIPMENT, FANS ETC., SHALL BE AS NOTED IN THEIR SCHEDULES. SEE SPECIFICATIONS FOR DETAIL.
3. INTERLOCKS, FIRE, FREEZE & SAFETY CONTROL WIRING SHALL BE BY MECHANICAL TRADE. SEE SPECIFICATIONS FOR DETAIL.

SILENCER SCHEDULE

No.	SERVICE	MODEL	L/S	PRESSURE DROP(Po)	SIZE WxHxL	INSERTION LOSS 2	3	4	5	6	7	8	REMARKS
S-1	H.R.U. SUPPLY	10RSS-O	7552	75	1500x700x1500	13	27	40	50	50	50	32	
S-2	H R U RETURN	10RSS-O	7930	75	1500x750x1500	13	27	40	50	50	50	32	
S-3	HEAT PUMP # 26 SUPPLY	10RSS-O	944	62	700x250x1500	10	23	36	50	50	46	24	
S-4	HEAT PUMP # 26 SUPPLY	14RSS-O	1888	62	850x350x1500	10	17	28	42	38	27	16	
S-5	HEAT PUMP # 26 SUPPLY	10RSS-O	944	62	700x250x1500	10	23	36	50	50	46	24	
S-6	HEAT PUMP # 26 RETURN	10RSS-O	2124	62	750x450x1500	13	27	40	50	50	50	32	
S-7	HEAT PUMP # 26 RETURN	10RSS-O	2124	62	750x450x900	7	16	29	38	47	44	24	
S-8	HEAT PUMP # 25 SUPPLY	12RSS-O	1416	62	600x350x1500	9	19	35	50	45	40	20	
S-9	HEAT PUMP # 25 RETURN	12RSS-O	1416	62	600x350x1500	12	25	39	50	50	44	24	

UNIT NO.	AREA SERVED & LABEL	MODEL NO.	COOLING CAPACITY (KW)	HEATING CAPACITY (KW)	AIR FLOW (L/S)	EXT. SP. (kPa)	FAN (W)	WATER FLOW (L/S)	WATER P.D. (METERS)	ELECTRICS TOTAL FLA	VOLT	MCA	F.A. (L/S)	UNIT WT (KG)	FUSE SIZE	REMARKS
1	KINDERGARTEN COATS 134 & 136	HS 042	11.782	13.863	590	0.124		0.68	3.55	14.7	208/3/60	17.7	212	105	25	
2	ADMIN OFFICE 105	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	85	102	25	
3	STAFF RM. 110 COFFEE RM. 111	HS 042	6.712	8.001	382	0.124		0.38	3.42	9.6	208/1/60	12.5	92	91	20	
4	OFFICE 106 HEALTH OFFICE 108	HS 019	5.774	6.506	269	0.124		0.33	2.73	8.8	208/1/60	11.3	50	79	15	
5	SPECIAL EDUC. 148	HS 024	6.712	8.001	382	0.124		0.38	3.42	9.6	208/1/60	12.5	142	91	20	
6	RESOURCE WITHDRAWAL 149	HS 019	5.774	6.506	269	0.124		0.33	2.73	8.8	208/1/60	11.3	94	79	15	
7	CLASS RM. 150	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
8	KINDERGARTEN 142	HS 048	13.482	14.625	826	0.124		0.78	5.15	19.2	208/3/60	22.7	212	132	35	
9	CLASSROOM 151	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
10	KINDERGARTEN 142	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
11	KINDERGARTEN 137	HS 042	11.782	13.863	590	0.124		0.68	3.55	14.7	208/3/60	17.7	212	105	25	
12	CLASSROOM 155	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
13	CLASSROOM 156	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
14	CLASSROOM 182	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
15	CLASSROOM 183	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
16	CLASSROOM 177	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
17	CLASSROOM 184	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
18	CLASSROOM 176	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
19	CLASSROOM 186	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
20	CLASSROOM 175	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
21	CLASSROOM 187	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
22	GUIDANCE 171, 172, 173 & 174	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
23	CLASSROOM 188	HS 036	10.141	10.903	552	0.124		0.59	2.85	13.8	208/3/60	16.5	212	102	25	
24	STAGE/LUNCH 159	HS 030	8.177	10.199	437	0.124		0.47	1.97	8.3	208/3/60	10	142	91	20	
25	RESOURCE CENTRE 170	V-080	21.835	20.516	1416	0.249		1.31	4.21	28.2	208/3/60	33.7	238	270	50	
26	G. PURPOSE RM. 163	V-200	57.298	55.944	3776	0.298		3.39	6.36	68.8	208/3/60	75.3	708	575	100	
27	OFFICE & COATS 120 & 121	HS 019	5.774	6.506	269	0.124		0.33	2.73	8.8	208/1/60	11.3	28	79	15	
28	STAFF RM. 122 & PRESCHOOLERS	HS 042	11.782	13.863	590	0.124		0.68	3.55	14.7	208/3/60	17.7	184	105	25	
29	SCHOOLERS 128	HS 030	8.177	10.199	437	0.124		0.47	1.97	8.3	208/3/60	10	113	91	20	
30	FOYER 101	HS 019	5.774	6.506	269	0.124		0.33	2.73	8.8	208/1/60	11.3	30	79	15	

FAN EQUIPMENT SCHEDULE

NUMBER	SERVICE AND LABEL	MAKE OF FAN	MODEL No.	VOL. FLOW (L/S)	O-V (M/S)	S.P. (Pa)	SPEED R.P.S.	TIP SPEED (M/S)	MOTOR kW	PH.	V.	ROT'N	DISCH	TIMER	ACCESSORIES & REMARKS
EF-1	EXHAUST FAN EF-1 TMR - 147	REVERSOMATIC	BB100	47	—	37.0	25.8	—	AMP. 1.0	1	115				
EF-2	EXHAUST FAN EF-2 W.R. - 141	DITTO	QB60	24	—	37.0	17.5	—	AMP. 0.35	1	115				
EF-3	EXHAUST FAN EF-3 W.R. - 138	DITTO	QB60	24	—	37.0	17.5	—	AMP. 0.35	1	115				
EF-4	EXHAUST FAN EF-4 W.R.-135	DITTO	QB60	24	—	37.0	17.5	—	AMP. 0.35	1	115				
EF-5	EXHAUST FAN EF-5 DAY CARE STOR. - 131	DITTO	BB100	47	—	37.0	25.8	—	AMP 1.0	1	115				
EF-6	EXHAUST FAN EF-6 W.R. 129	DITTO	QB60	24	—	37.0	17.5	—	AMP. 0.35	1	115				
EF-7	EXHAUST FAN EF-7 W.R. -123	DITTO	BB100	47	—	37.0	25.8	—	AMP. 1.0	1	115				
EF-8	EXHAUST FAN EF-8 W.R. - 119	DITTO	BB100	47	—	37.0	25.8	—	AMP 1.0	1	115				
EF-9	EXHAUST FAN EF-9 WATER FILTRATION	PENN-DOMEX	XR 60	71	—	62.5	25.8	—	WATT 29.8	1	115				
EF-10	EXHAUST FAN EF-10 W.R -107,112 & 113	PENN-DOMEX	XR 60	71	—	62.5	25.8	—	WATT 29.8	1	115				
EF-11	EXHAUST FAN EF-11 KITCHEN -, 117	NUTONE	V-90 -30 VP 400C	88	—	—	—	—	WATT 120	1	115				
EF-12	EXHAUST FAN EF-12 STOR.-179 & SBR. RM.-178	PENN-DOMEX	XR 94	236	—	62.5	25.8	—	WATT 74.6	1	115				
EF-13	EXHAUST FAN EF-13 KITCHEN - 162	PENN-DOMEX	QX60	88	—	75	29.2	—	WATT 62	1	115				HOOD w/o FAN
EF-14	EXHAUST FAN EF-14 SPECIAL EDUCATION	NUTONE	V-80 -30 VP 400C	88	—	—	—	—	WATT 62	1	115				
SF-1	SUPPLY AIR FAN SF-1 MECH. ROOM	PENN-BREEZWAY	P16 0	292	—	62.5	28.7	—	WATT 186.5	1	115				MOTORIZED DAMPER

CIRCULATING PUMP SCHEDULE

NO:	SYSTEM SERVED & PUMP LABEL	MODEL	SIZE	FLOW (L/S)	HEAD (M)	MOTOR KW	MOTOR R.P.S.	REMARKS
P-1	PUMP # P-1 HEAT PUMP SYSTEM LOW TEMP.	ARMSTRONG 4030	150X100X200	20.2	18.3	7.46	30	
P-2	PUMP # P-2 HEAT PUMP SYSTEM LOW TEMP.	ARMSTRONG 4030	150X100X200	20.2	18.3	7.46	30	
P-3	PUMP #P-3 BUILDING HEATING HIGH TEMP.	ARMSTRONG 4030	80X50X200	7.0	16.7	2.24	30	
P-4	PUMP #P-4 BUILDING HEATING	ARMSTRONG 4030	80X50X200	7.0	16.7	2.24	30	
P-5	PUMP #P-5 HEAT RECOVERY COIL	ARMSTRONG CIRCULATOR	S57	5.0	4.6	0.56	30	
P-6	PUMP #P-6 HEAT RECOVERY COIL	ARMSTRONG CIRCULATOR	S57	5.0	4.6	0.56	30	

R.J.BLACK & ASSOCIATES LTD.
CONSULTING ENGINEERS
5745 COOPERS AVENUE
MISSISSAUGA, ONTARIO L4Z 1R9
TELEPHONE: (416)507-4100 FAX: (416)507-4107

BEFORE COMMENCING WORK

CHECK AND VERIFY LOCATION OF ALL PIPES, DUCTS AND EQUIPMENT WITH ALL OTHER TRADES TO PREVENT INTERFERENCE.

REMOVAL OR RELOCATION OF ANY SUCH WORK INTERFERING WITH WORK OF OTHER TRADES IS THE RESPONSIBILITY OF THE MECHANICAL TRADE CONCERNED UNLESS OTHERWISE APPROVED IN WRITING.

1993
No. Date Description
Revisions

Dimensions are to be checked and verified by the Contractor on the site

NOTRE DAME CATHOLIC SCHOOL

FITTONS RD. ORILLIA
SIMCOE COUNTY SEPARATE SCHOOL BOARD

SCHEDULES

HVAC

93-121

True North | Dwg. North
Scale N.T.S.
Date JULY 19, 1993
Printed FEB. 2, 1994

Project No. 92-56
Dwg. No. M-10