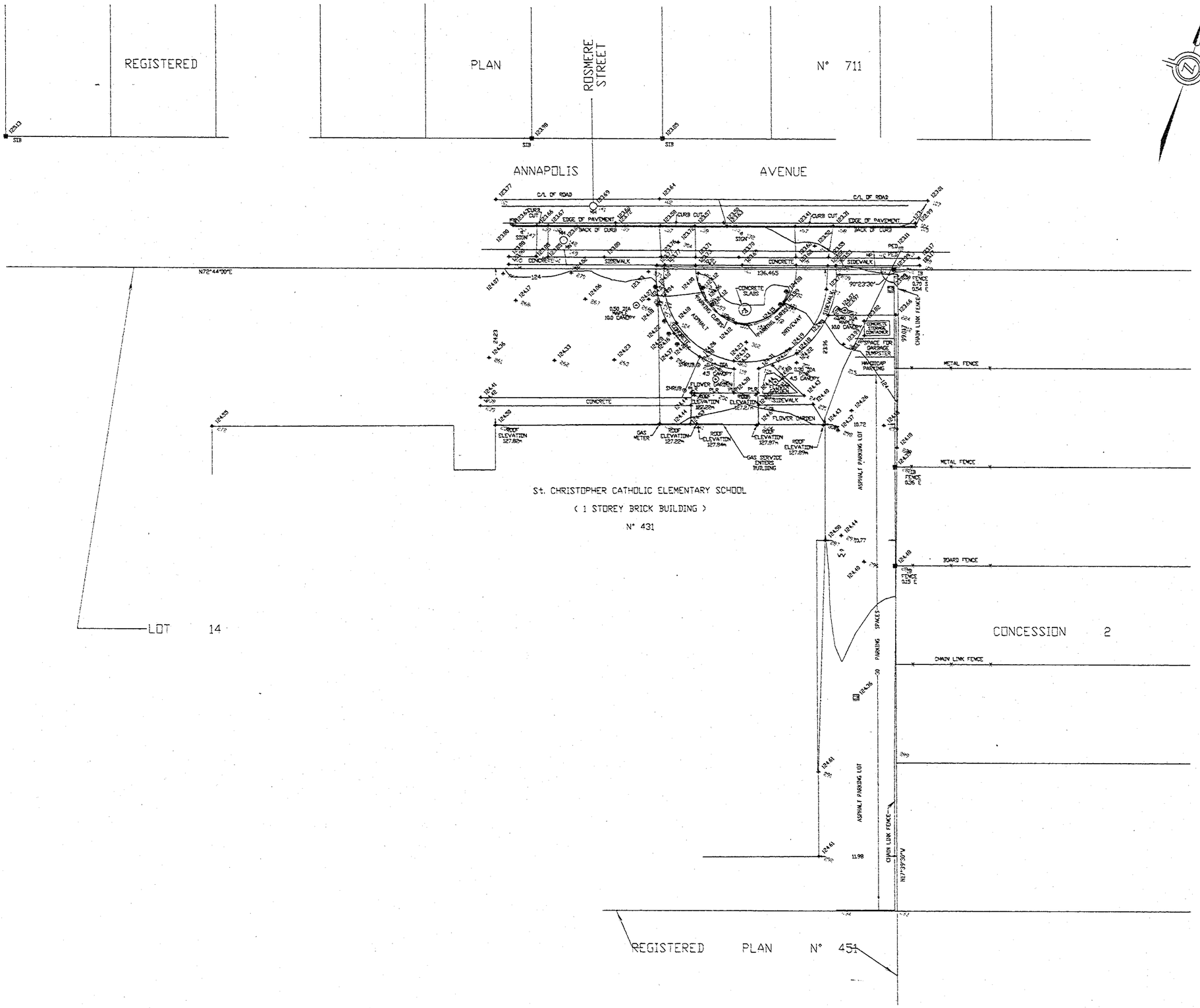


TOPOGRAPHIC PLAN OF
PART OF LOT 14
CONCESSION 2
(GEOGRAPHIC TOWNSHIP OF EAST WHITBY)
NOW IN THE
CITY OF OSHAWA
REGIONAL MUNICIPALITY OF DURHAM

SCALE 1 : 300

5 0 5 10 20 metres

METRIC DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

NOTES

LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR BEFORE EXCAVATION.

BENCHMARK

CITY OF OSHAWA BENCHMARK N° 32

LOCATED ON THE WEST SIDE OF GIBBONS STREET, SOUTH OF ANNAPOLIS AVENUE. PLAQUE AT THE SOUTHEAST CORNER BOTTOM FOUNDATION, HOUSE N° 368 GIBBONS STREET.

ELEVATION = 124.803m (GEODETIC)

LEGEND

■	DENOTES SURVEY MONUMENT FOUND
SIB	DENOTES STANDARD IRON BAR
IB	DENOTES IRON BAR
MH	DENOTES MANHOLE
CB	DENOTES CATCHBASIN
HP	DENOTES HYDRO POLE
FP	DENOTES FLAG POLE
PLR	DENOTES PILLAR
WV	DENOTES WATER VALVE
	DENOTES ROUND CONCRETE CURB STONES
PED	DENOTES TELEPHONE PEDESTAL
SIGN	DENOTES SIGN
—G—	DENOTES UNDERGROUND GAS SERVICE
—UT—	DENOTES UNDERGROUND TELEPHONE SERVICE
—TE—	DENOTES OVERHEAD TELEPHONE AND HYDRO SERVICE

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

THE SURVEY REPRESENTED BY THIS PLAN WAS COMPLETED ON APRIL 5th, 1999

DATE ___ ___ ___ ___ ___ ___ ___ ___

S. E. COONS
ONTARIO LAND SURVEYOR

J.D. BARNES LIMITED
SURVEYING MAPPING
LAND INFORMATION SERVICES
110 SCOTIA COURT #46
WHITBY, ONTARIO L1N 8Y7
TEL. (905) 723-1212
FAX (905) 723-4234

DRAWN BY:	CHECKED BY:	REFERENCE NO.:
D. H. T.	S. E. C.	99-25-795-00
FILE: G:/99257900/2579001.dgn		DATE: 07 APR 1999

SC-0048

ADDITION AND RENOVATIONS TO

ST. CHRISTOPHER'S CATHOLIC SCHOOL

Oshawa, Ontario

THE DURHAM CATHOLIC DISTRICT SCHOOL BOARD

The Durham Catholic District School Board

LIST OF DRAWINGS

ARCHITECTURAL
DRAWINGS BY ZAWADZKI ARMIN STEVENS ARCHITECTS INC.

A100	TITLE SHEET/ SITE PLAN
–	SURVEYING MAP AND LAND INFORMATION SERVICES
A301	GROUND FLOOR EXISTING/ DEMOLITION PLAN
A302	PART FLOOR PLANS
A401	ELEVATIONS/ PLAN DETAILS/ SCREEN ELEVATIONS
A501	WALL SECTIONS AND SECTION DETAILS

STRUCTURAL
DRAWINGS BY HALSALL ASSOCIATES LIMITED

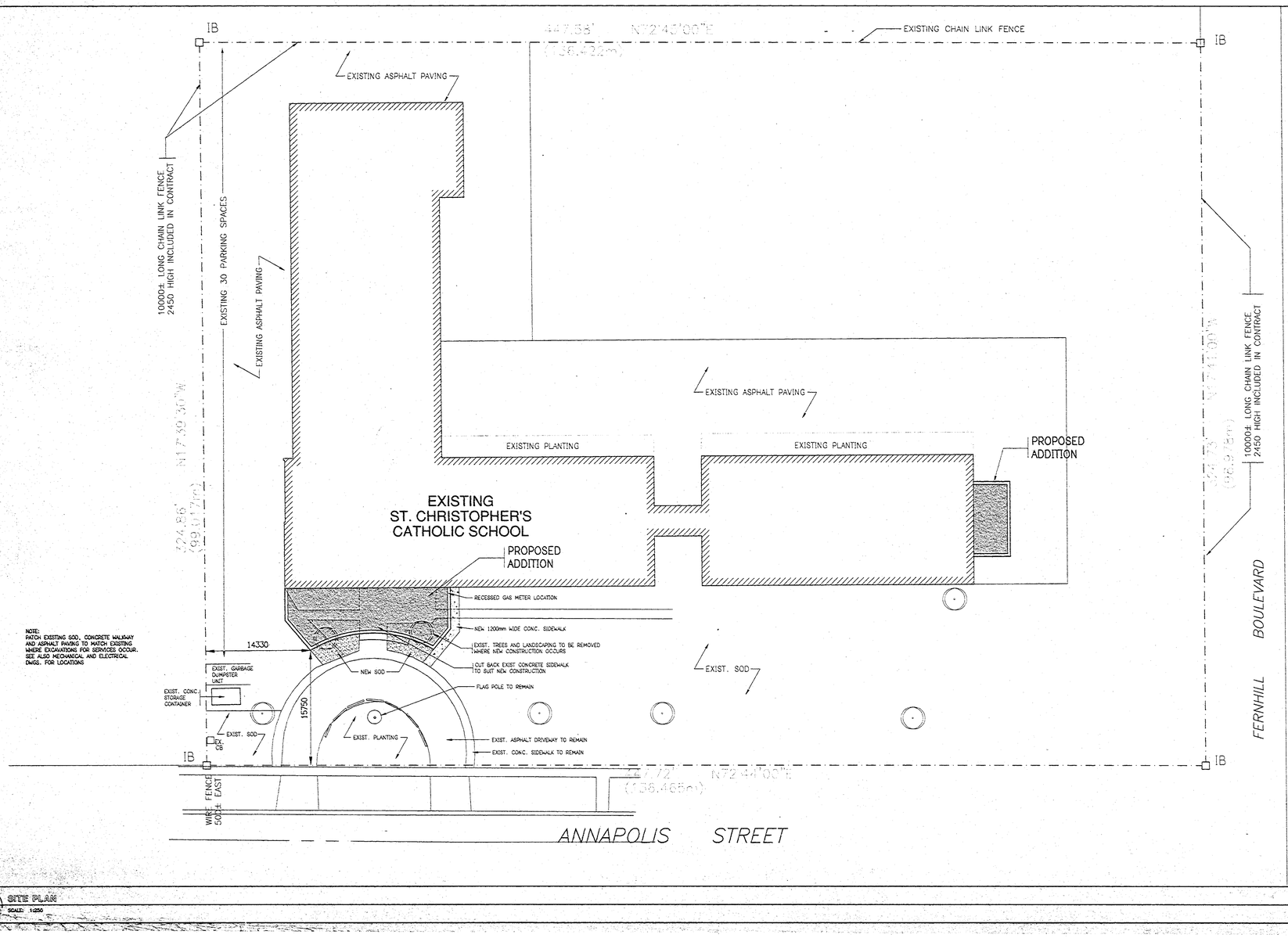
S1	PLANS AND SECTIONS
S2	TYPICAL DETAILS AND GENERAL NOTES

MECHANICAL
DRAWINGS BY DAY & BEHN ENGINEERING INC.

M1	GROUND FLOOR PLAN – HVAC
M2	ROOF PLAN AND MECHANICAL ROOMS AND SECTIONS
M3	MECHANICAL SCHEMATIC SCHEDULES & DETAILS

ELECTRICAL
DRAWINGS BY DAY & BEHN ENGINEERING INC.

E1	ELECTRICAL SITE PLAN AND DETAILS
E2	ELECTRICAL LEGEND AND PARTIAL PLANS
E3	PARTIAL ELECTRICAL PLANS



1 SITE PLAN
SCALE: 1:250

SITE STATISTICS

1. ZONING:
   .1 MUNICIPAL ADDRESS: 431 ANNAPOLIS AVE. OSHAWA, ONTARIO
2. GROSS FLOOR AREA:
   .1 EXISTING: 2614 M2
   .2 ADDITION: 207 M2 2821
3. SITE PLAN AREAS:
   .1 AREA OF SITE: 13507 M2
   .2 BUILDING COVERAGE EXISTING: 19.4% (MAX. 30% COVERAGE)
   .3 BUILDING COVERAGE PROPOSED: 1.5%
4. PARKING REQUIREMENTS:
   .1 EXISTING: 30 SPACES
   .2 MUNICIPAL REQUIRED: 27 SPACES (1.5 SPACES PER CLASSROOM)
5. HEIGHTS/SETBACKS:
   .1 BUILDING HEIGHT EXISTING: 3.6M
   .2 BUILDING HEIGHT PROPOSED: 4.5M
   .3 MIN. FRONT YARD: 7.5M
   .4 PROPOSED FRONT YARD: 15.75M

SC-0049

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REVISIONS		
No.	Date	Description
1	05\11\99	ISSUED FOR CLIENT REVIEW
1	05\27\99	ISSUED FOR TENDER
3	05/28/99	ISSUED FOR BUILDING PERMIT

PROJECT
A
S
M
E
C
P
B

ONTARIO ASSOCIATION OF ARCHITECTS
PAUL ANDREW STEVENS
LICENCE
4501

ZASA
ZAWADZKI ARMIN STEVENS
ARCHITECTS

510 FRONT ST. WEST
SUITE 103
TORONTO, ONTARIO
M5V 1B8

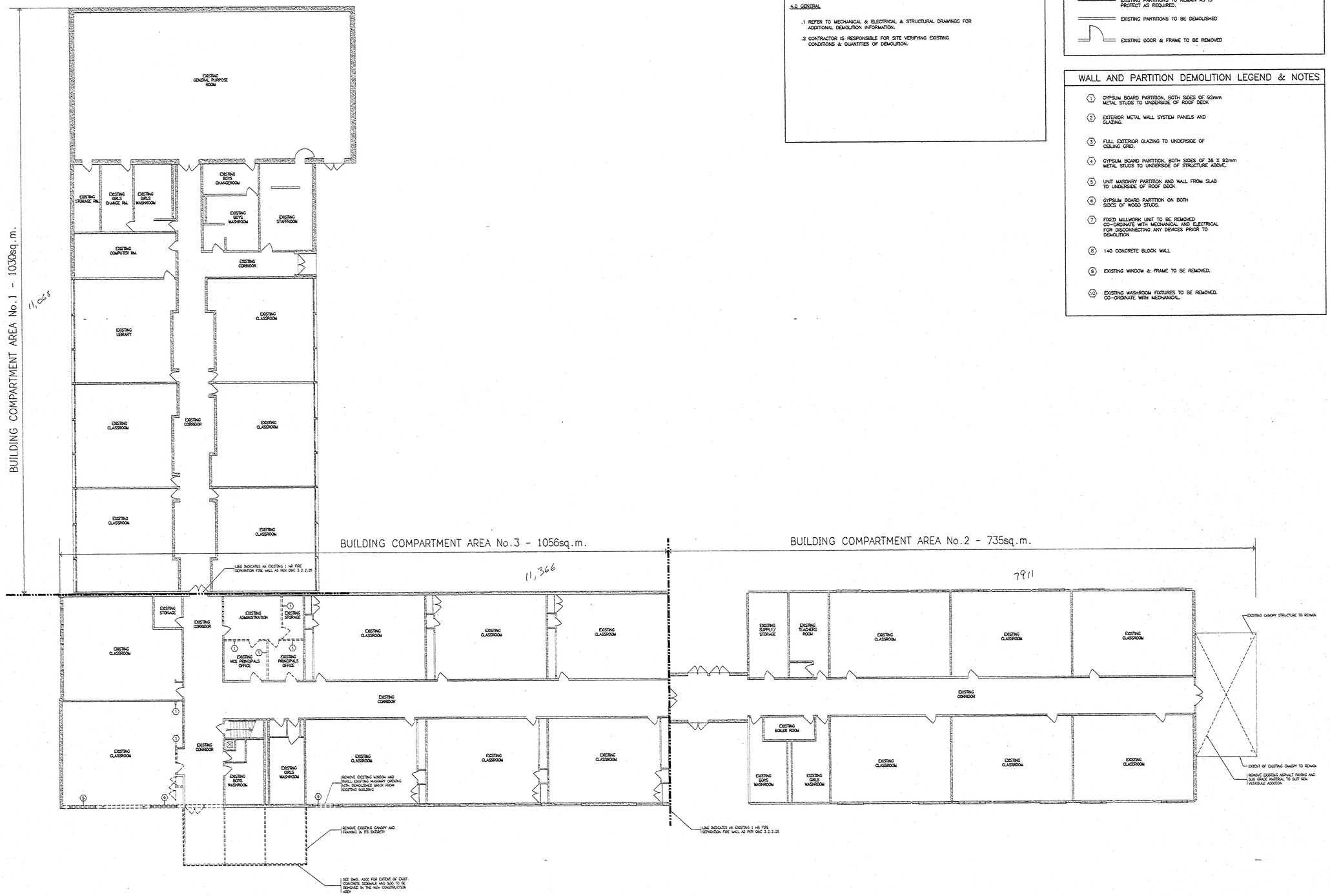
TEL: 416-979-9834
FAX: 416-979-3763

PROJECT
ST. CHRISTOPHER ELEMENTARY SCHOOL
OSHAWA, ONTARIO

SCALE: AS SHOWN
DRAWN: TDS
DATE: MARCH 1999
REV. NO.

TITLE
TITLE SHEET/ SITE PLAN

DRAWING: A-100
REV.
PROJECT: 9884-30



DEMOLITION NOTES

1.0 WALLS:

.1 DEMOLISH WALLS AS INDICATED ON PLANS, SLAB TO SLAB

.2 REMOVE AND DISPOSE GLAZED SCREENS, FRAMES AND DOORS LOCATED IN WALLS AND PARTITIONS TO BE REMOVED.

.3 GENERAL CONTRACTOR IS RESPONSIBLE FOR REPAIRING DAMAGES TO REQUIRED FIRE SEPARATIONS IN CONTRACT AREA. MAINTAIN EXISTING FIRE SEPARATIONS THROUGHOUT CONTRACT AREA.

2.0 FLOORS

.1 UNLESS NOTED OTHERWISE ALL FLOOR FINISHES TO BE REMOVED TO TOP OF EXISTING CONCRETE SUBFLOOR IN THE CONTRACT AREA. REMOVE ALL DEBRIS FROM BELOW FINISHES TO PROVIDE A TRUE AND FLUSH TRANSITION TO NEW AND EXIST. FLOORING.

3.0 CEILINGS

.1 REMOVE EXISTING CEILING FINISH WHERE REQUIRED TO ALLOW FOR CEILING SPACE ACCESS.

4.0 GENERAL

.1 REFER TO MECHANICAL & ELECTRICAL & STRUCTURAL DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION.

.2 CONTRACTOR IS RESPONSIBLE FOR SITE VERIFYING EXISTING CONDITIONS & QUANTITIES OF DEMOLITION.

DEMOLITION LEGEND

INDICATES SCOPE OF WORK

EXISTING REQUIRED FIRE SEPARATION (PROTECT DURING CONSTRUCTION)

HOARDING PARTITION CONSTRUCTION (DUST/SECURITY BARRIER)
16 GWB ON BOTH SIDES OF 92 METAL STUDS @ 400 O/C FILLED WITH ACCOUSTIC INSULATION. USE GWB TYPE SCREWS ONLY. TAPE ALL JOINTS (TYP. BOTH SIDES) SAND AND PAINT OPPOSITE SIDE OF CONSTRUCTION AREA ONLY. WHERE CEILING IS TO BE REMOVED, ERECT HOARDING FROM SLAB TO SLAB. WHERE CEILING REMAINS, ERECT HOARDING FROM SLAB TO UNDERSIDE OF CEILING.

IN ADDITION TO HOARDING SHOWN ON PLAN, PROVIDE ALL NECESSARY TEMPORARY HOARDING BETWEEN EXISTING AREAS TO REMAIN AND CONTRACT AREA. PROVIDE DOORS c/w LOCKSETS. DO NOT BLOCK FIRE EXITS AND/OR ACCESS TO EXITS.

EXISTING PARTITIONS TO REMAIN AS IS PROTECT AS REQUIRED.

EXISTING PARTITIONS TO BE DEMOLISHED

EXISTING DOOR & FRAME TO BE REMOVED

WALL AND PARTITION DEMOLITION LEGEND & NOTES

1. GYPSUM BOARD PARTITION, BOTH SIDES OF 92mm METAL STUDS TO UNDERSIDE OF ROOF DECK
2. EXTERIOR METAL WALL SYSTEM PANELS AND GLAZING.
3. FULL EXTERIOR GLAZING TO UNDERSIDE OF CEILING GRID.
4. GYPSUM BOARD PARTITION, BOTH SIDES OF 38 X 92mm METAL STUDS TO UNDERSIDE OF STRUCTURE ABOVE.
5. UNIT MASONRY PARTITION AND WALL FROM SLAB TO UNDERSIDE OF ROOF DECK
6. GYPSUM BOARD PARTITION ON BOTH SIDES OF WOOD STUDS.
7. FIXED MILLWORK UNIT TO BE REMOVED CO-ORDINATE WITH MECHANICAL AND ELECTRICAL FOR DISCONNECTING ANY DEVICES PRIOR TO DEMOLITION
8. 140 CONCRETE BLOCK WALL
9. EXISTING WINDOW & FRAME TO BE REMOVED.
10. EXISTING WASHROOM FIXTURES TO BE REMOVED. CO-ORDINATE WITH MECHANICAL.

GROUND FLOOR EXISTING AND DEMOLITION PLAN
SCALE 1:125

SC-0050

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REVISIONS

No.	Date	Description
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2	05/27/99	ISSUED FOR TENDER
3	05/28/99	ISSUED FOR BUILDING PERMIT

KEY PLAN

PROJECT

A
S
M
E
U
F
B

ONTARIO ASSOCIATION OF ARCHITECTS
MARK ARMIN STEVENS
LICENCE 6041

ZASA
ZAWADZKI ARMIN STEVENS
ARCHITECTS

510 FRONT ST. WEST
SUITE 103
TORONTO, ONTARIO
M5V 1B8

TEL: 416-979-9834
FAX: 416-979-3763

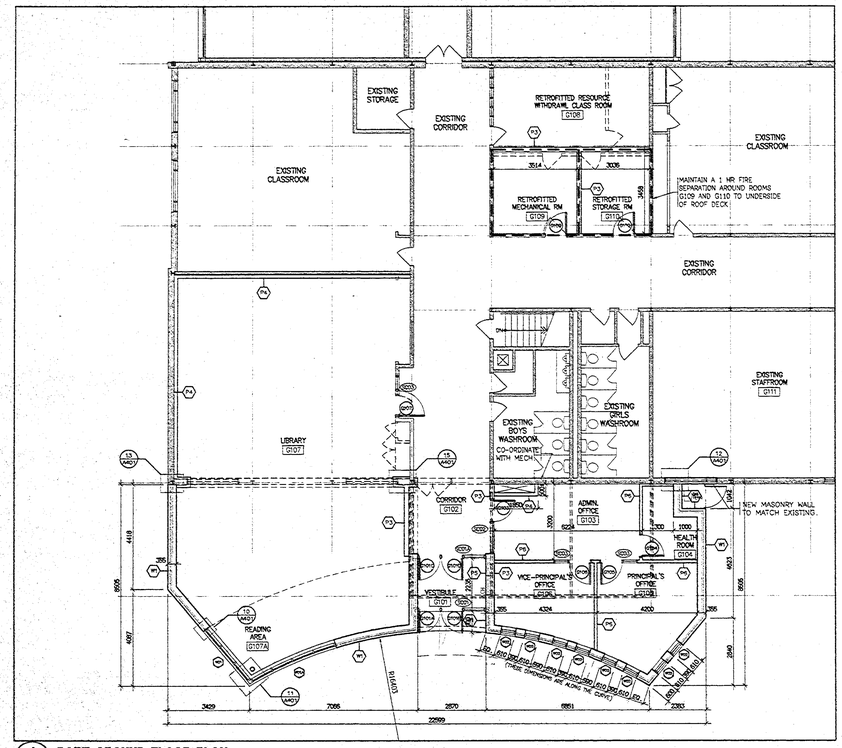
PROJECT
ST. CHRISTOPHER CATHOLIC ELEMENTARY SCHOOL
OSHAWA, ONTARIO

The Durham Catholic District School Board

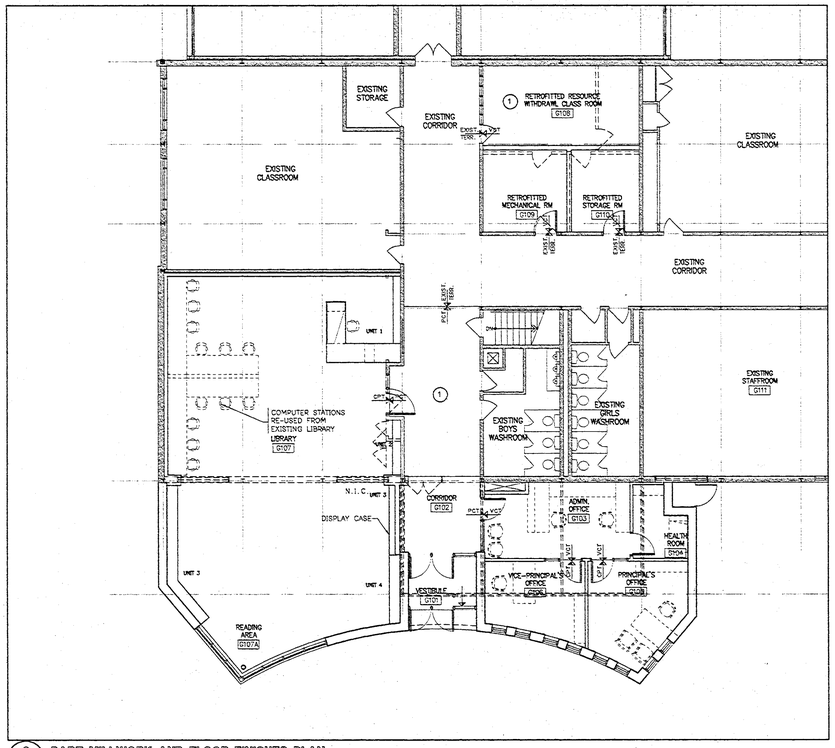
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1:125	MA
DATE	REV. NO.
FEB 16, 1999	

TITLE
GROUND FLOOR EXISTING & DEMOLITION PLAN

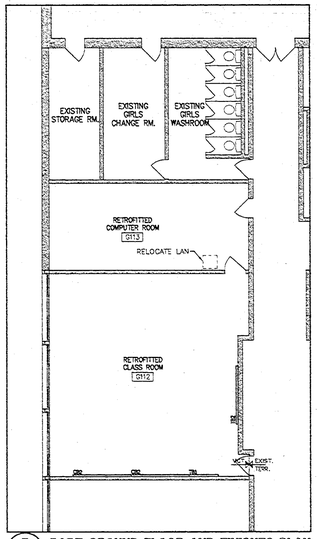
DRAWING	REV.	PROJECT
A-301		9884-30



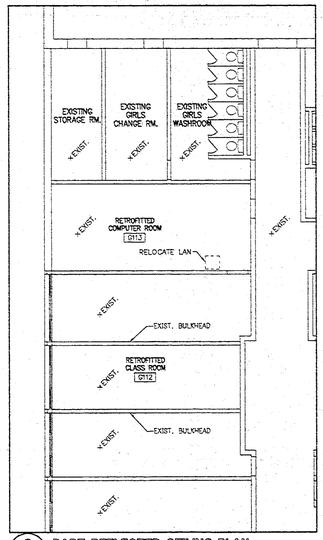
1 PART GROUND FLOOR PLAN
A-302 SCALE 1:100



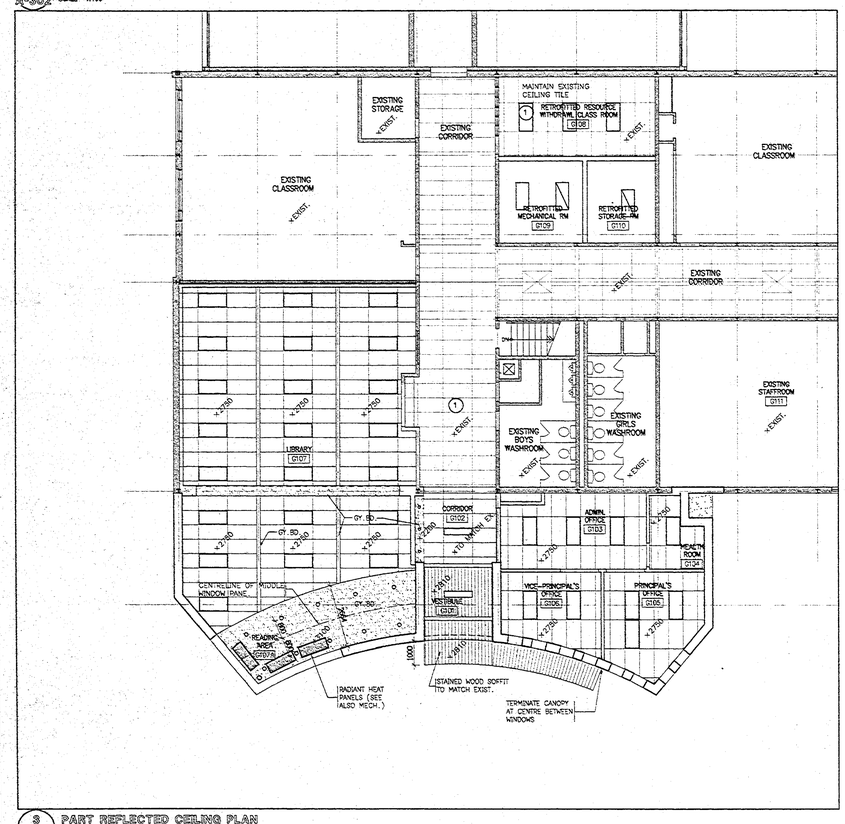
2 PART MILLWORK AND FLOOR FINISHES PLAN
A-302 SCALE 1:100



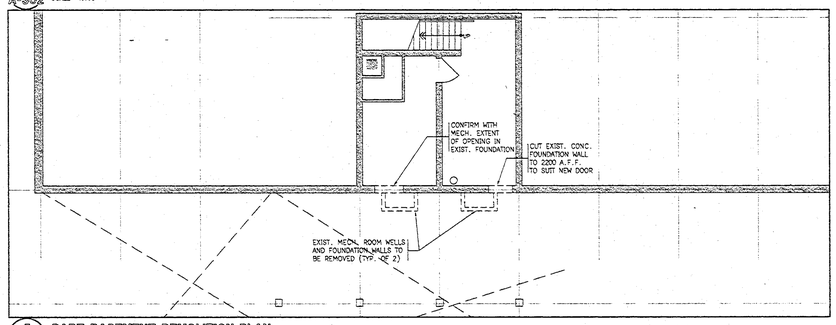
7 PART GROUND FLOOR AND FINISHES PLAN
A-302 SCALE 1:100



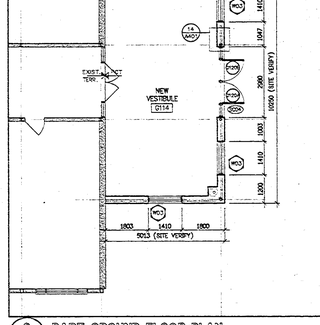
8 PART REFLECTED CEILING PLAN
A-302 SCALE 1:100



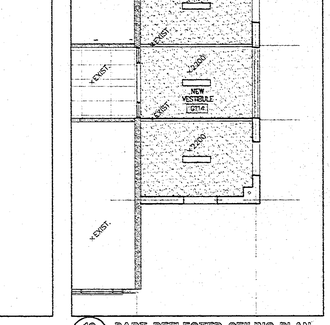
3 PART REFLECTED CEILING PLAN
A-302 SCALE 1:100



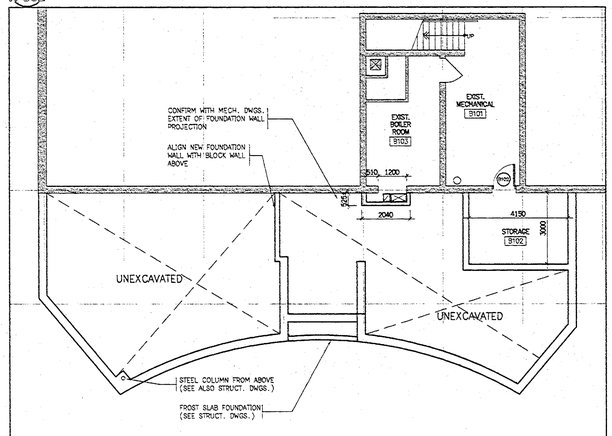
5 PART BASEMENT DEMOLITION PLAN
A-302 SCALE 1:100



9 PART GROUND FLOOR PLAN
A-302 SCALE 1:100



10 PART REFLECTED CEILING PLAN
A-302 SCALE 1:100



5 PART BASEMENT PLAN
A-302 SCALE 1:100

REFLECTED CEILING LEGEND

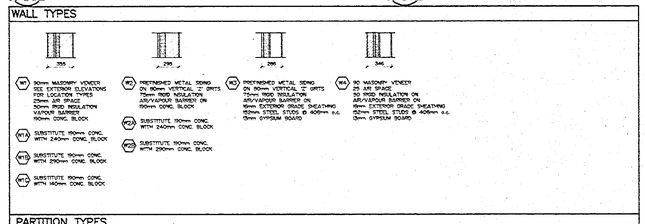
- DENOTES CEILINGS TO RECEIVE ACCOUSTIC TILE AND GRID (SEE SPECIFICATIONS)
- DENOTES SUSPENDED GYPSUM BOARD CEILING FINISH (SEE PLAN FOR HEIGHT) SEE ROOM FINISH SCHEDULE FOR FINISH TYPE TYP.) INSTALL WEATHERPROOF GY.BD. AT ALL WET AREAS.
- x.ELEV — DENOTES HEIGHT TO FINISHED CEILING OR UNDERSIDE OF BULKHEAD OR UNDERSIDE OF FINISHED CANOPY (SEE REFLECTED CEILING PLAN)
- DENOTES ELECTRICAL LIGHT FIXTURES (TYP.) SEE ALSO ELECTRICAL DWGS.
- DENOTES ELECTRICAL LIGHT FIXTURES (TYP.) SEE ALSO ELECTRICAL DWGS.
- DENOTES ELECTRICAL LIGHT FIXTURES (TYP.) SEE ALSO ELECTRICAL DWGS.
- DENOTES ELECTRICAL LIGHT FIXTURES (TYP.) SEE ALSO ELECTRICAL DWGS.
- DENOTES ELECTRICAL LIGHT FIXTURES (TYP.) SEE ALSO ELECTRICAL DWGS.
- DENOTES MECHANICAL FIXTURES (TYP.) SEE ALSO MECHANICAL DWGS.

NOTE: EXISTING ACCOUSTIC METAL TILE REMOVED FOR MECHANICAL TO BE REPLACED IF DAMAGED

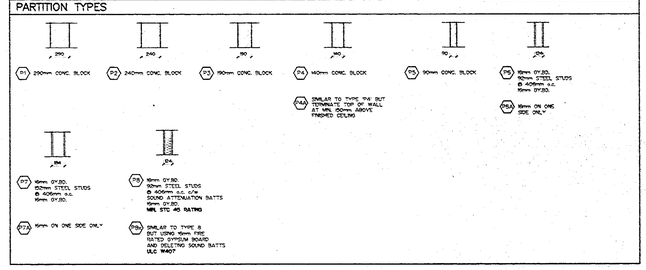
DEMOLITION LEGEND

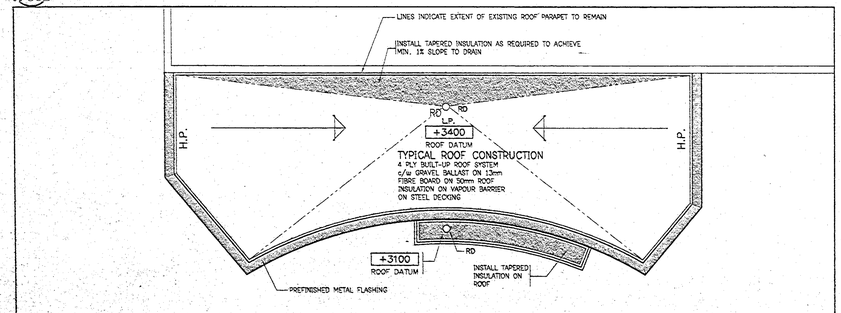
- EXISTING PARTITIONS TO REMAIN AS IS PROTECT AS REQUIRED.
- EXISTING PARTITIONS TO BE DEMOLISHED
- EXISTING DOOR & FRAME TO BE REMOVED

WALL TYPES



PARTITION TYPES





6 PART ROOF PLAN
A-302 SCALE 1:100

SC-0051

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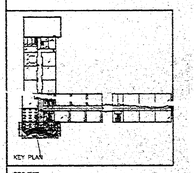
DATE

REVISIONS

No.	Date	Description
1	05/11/99	ISSUED FOR CLIENT REVIEW 80%
2	05/27/99	ISSUED FOR TENDER
3	06/28/99	ISSUED FOR BUILDING PERMIT

GENERAL NOTES:

1. PATCH AND MAKE GOOD FLOOR AND CEILING FINISHES WHERE DEMO OCCURS



PROJECT

A
S
M
E
U
F
B

ONTARIO ASSOCIATION OF ARCHITECTS
PAUL ARMIN STEVENS
LICENCE
1004

ZASA
ZAWADZKI ARMIN STEVENS
ARCHITECTS

510 FRONT ST. WEST
SUITE 103
TORONTO, ONTARIO
M5V 1B8

TEL: 416-979-9834
FAX: 416-979-3762

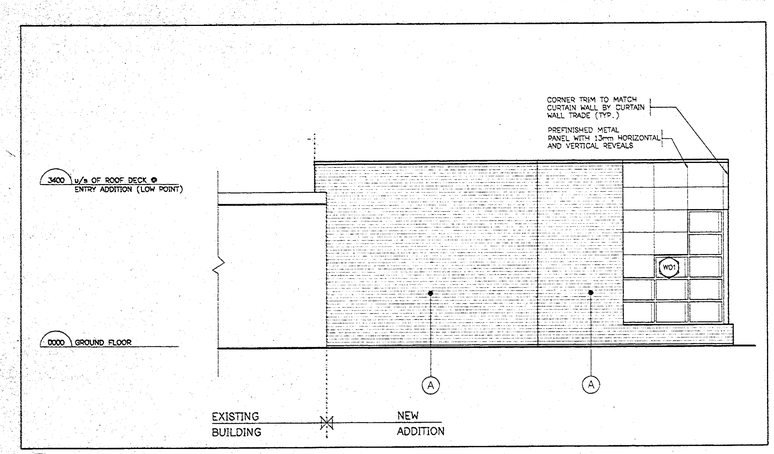
PROJECT
ST. CHRISTOPHER CATHOLIC ELEMENTARY SCHOOL
OSHAWA, ONTARIO

The Durham Catholic District School Board

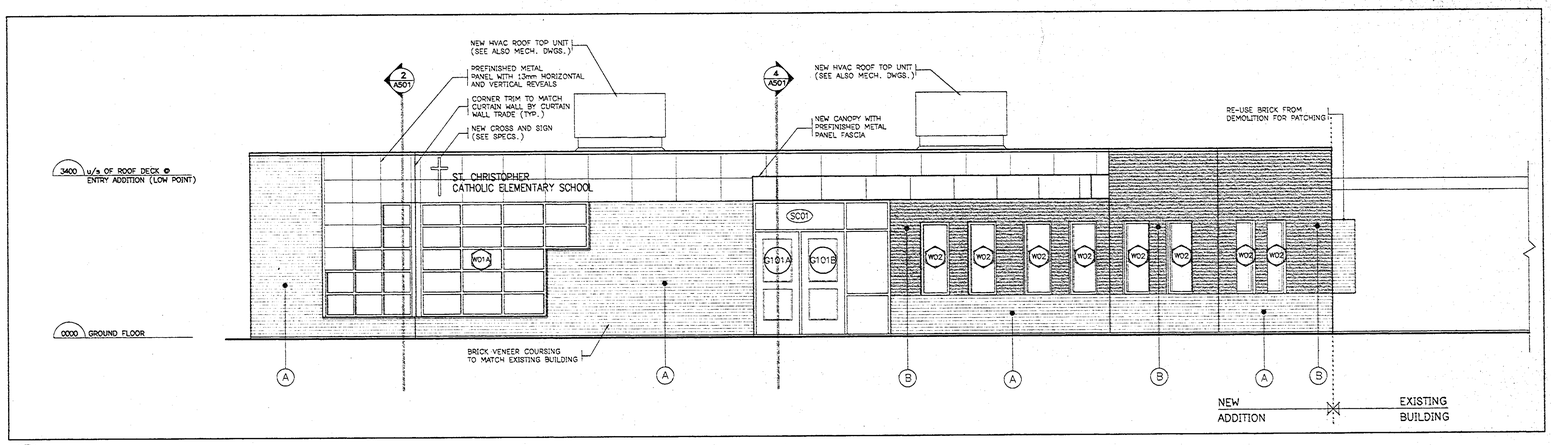
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FEB 16, 1999	

TITLE
PART FLOOR PLANS

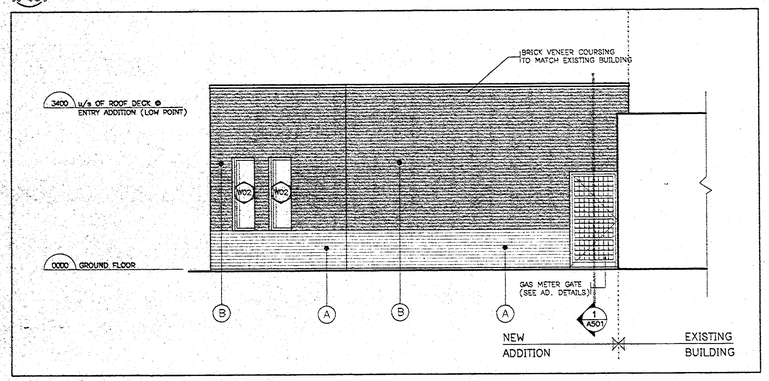
DRAWING	REV.	PROJECT
A-302		9884-30



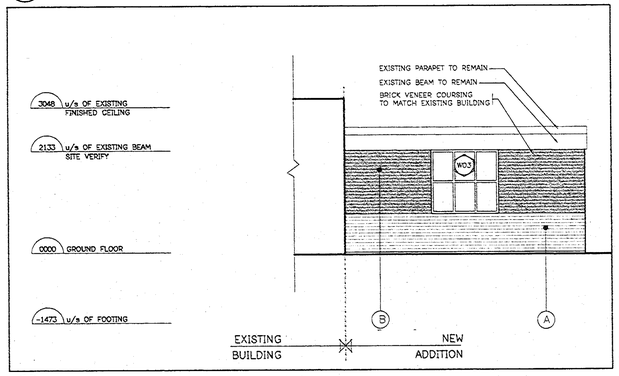
1 A-401 **PART WEST ELEVATION**
SCALE 1:50



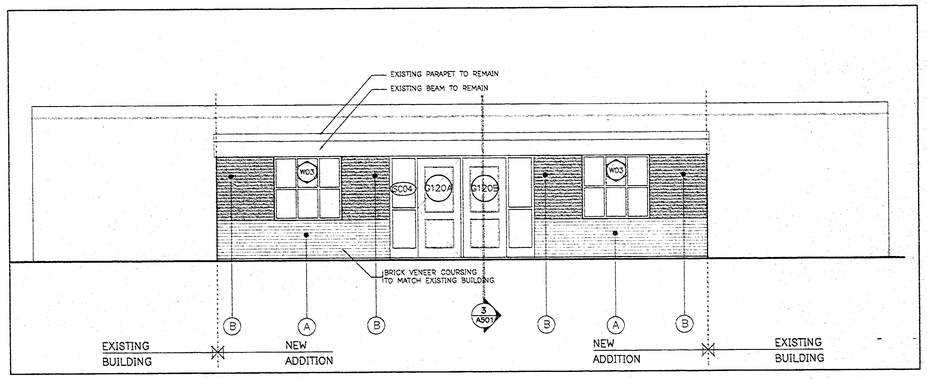
2 A-401 **PART SOUTH ELEVATION**
SCALE 1:50



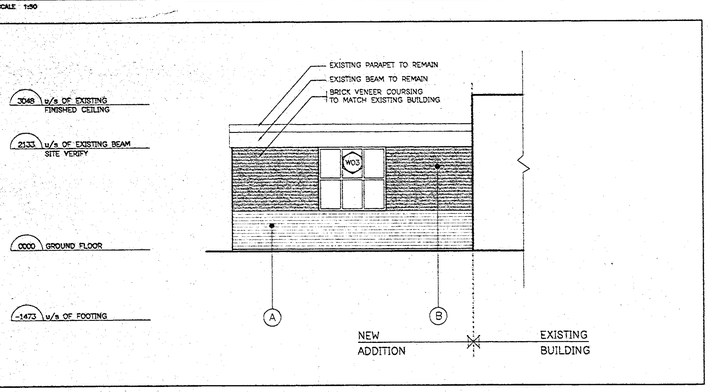
3 A-401 **PART EAST ELEVATION**
SCALE 1:50



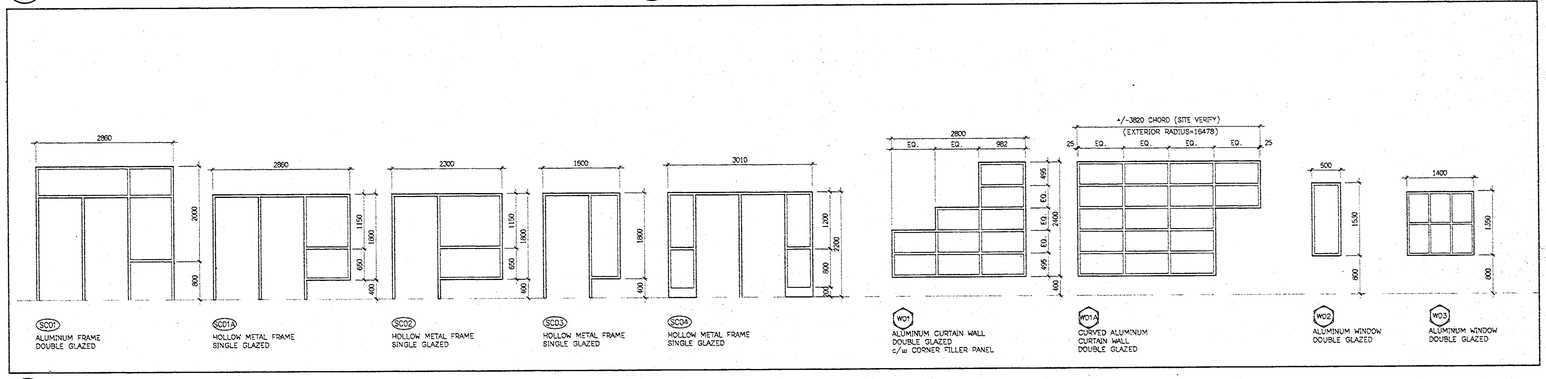
4 A-401 **PART SOUTH ELEVATION**
SCALE 1:50



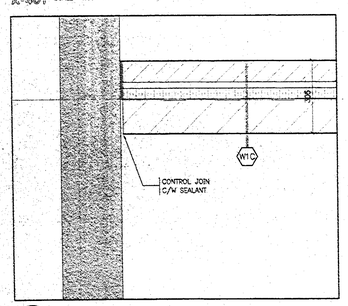
5 A-401 **PART EAST ELEVATION**
SCALE 1:50



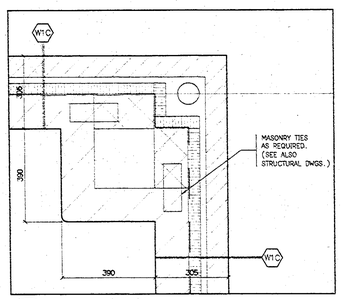
6 A-401 **PART NORTH ELEVATION**
SCALE 1:50



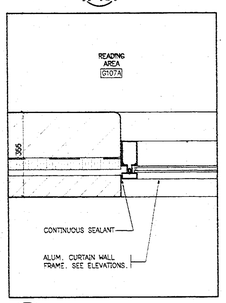
7 A-401 **PART NORTH ELEVATION**
SCALE 1:50



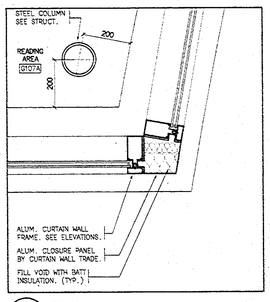
8 A-401 **PLAN DETAIL**
SCALE 1:10



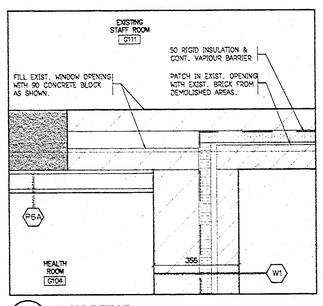
9 A-401 **PLAN DETAIL**
SCALE 1:10



10 A-401 **PLAN DETAIL**
SCALE 1:10



11 A-401 **PLAN DETAIL**
SCALE 1:10



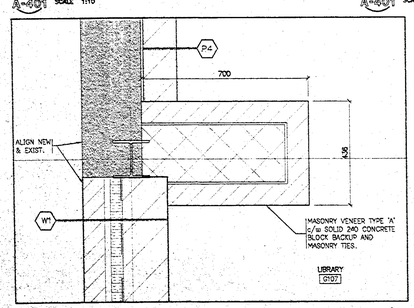
12 A-401 **PLAN DETAIL**
SCALE 1:10

ELEVATION LEGEND

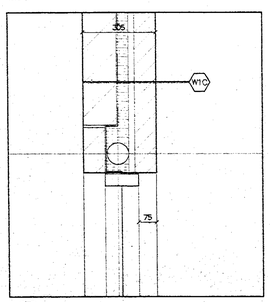
A — MASONRY TYPE A

B — MASONRY TYPE B

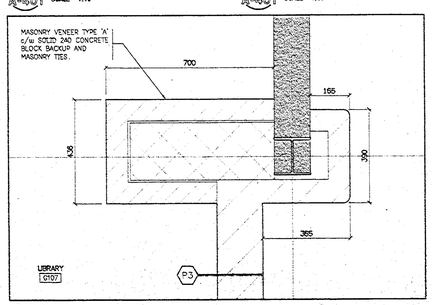
NOTE: BRICK TO MATCH EXISTING.



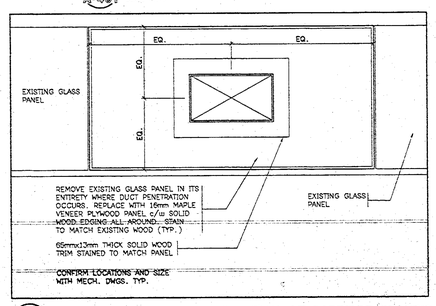
13 A-401 **PLAN DETAIL**
SCALE 1:10



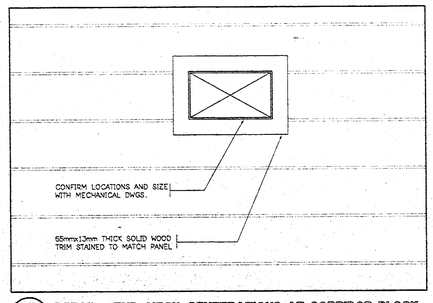
14 A-401 **PLAN DETAIL**
SCALE 1:10



15 A-401 **PLAN DETAIL**
SCALE 1:10



16 A-401 **DETAIL - TYP. MECH. PENETRATIONS AT CORRIDOR GLAZING**
SCALE 1:10



17 A-401 **DETAIL - TYP. MECH. PENETRATIONS AT CORRIDOR BLOCK**
SCALE 1:10

SC-0052

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REVISIONS

No.	Date	Description
1	05\11\99	ISSUED FOR CLIENT REVIEW SDR
1	05\27\99	ISSUED FOR TENDER
3	05/28/99	ISSUED FOR BUILDING PERMIT

KEY PLAN

PROJECT

A

S

M

E

U

F

B

ONTARIO ASSOCIATION OF ARCHITECTS PAUL ARMIN STEVENS LICENCE 1041

ZASA
ZAWADZKI ARMIN STEVENS ARCHITECTS

510 FRONT ST. WEST
SUITE 103
TORONTO, ONTARIO
M5V 1B8

TEL: 416-979-9834
FAX: 416-979-3763

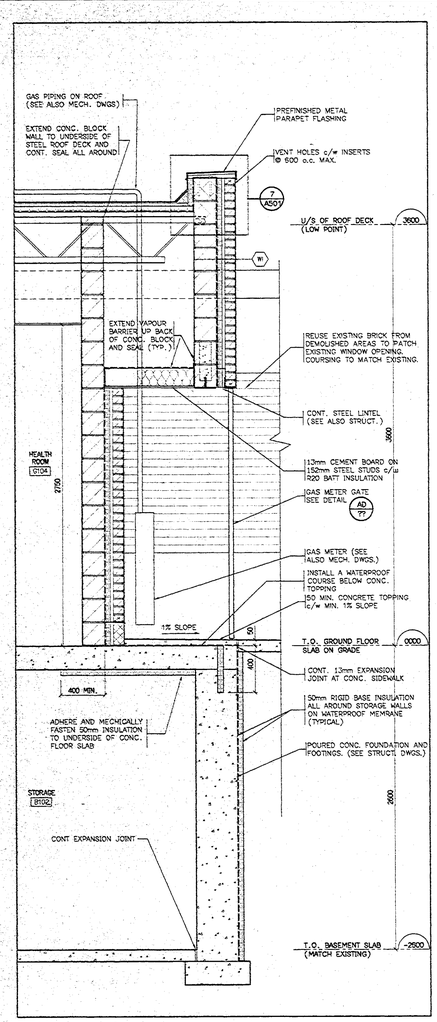
PROJECT
ST. CHRISTOPHER CATHOLIC ELEMENTARY SCHOOL
OSHAWA, ONTARIO

The Durham Catholic District School Board

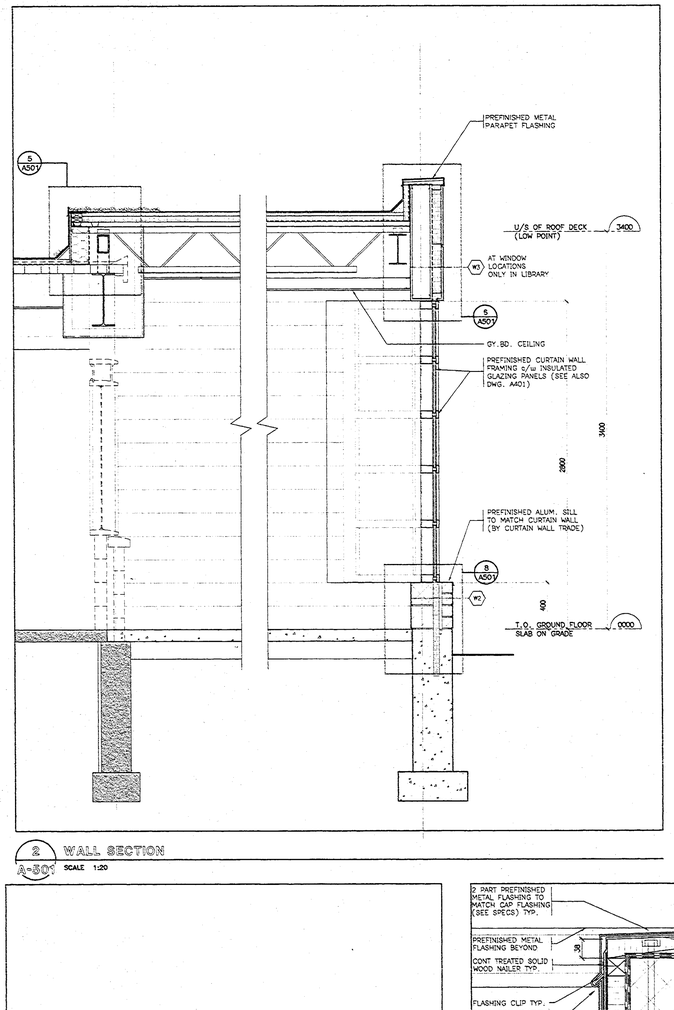
SCALE: AS SHOWN
DRAWN: TDS
DATE: FEB 16, 1999
REV. NO.

TITLE
ELEVATIONS / SECTIONS

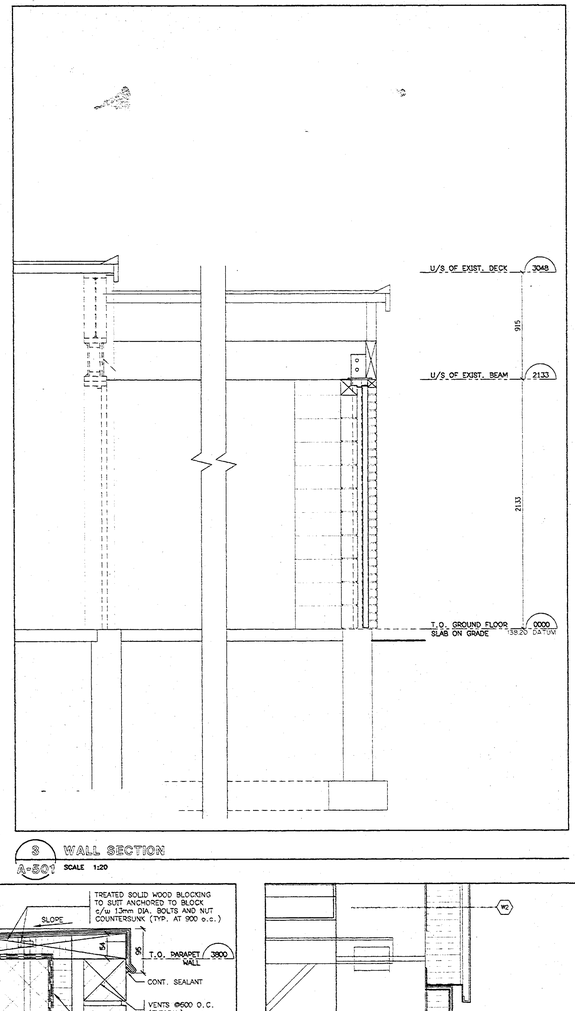
DRAWING: A-401
REV.
PROJECT: 9884-30



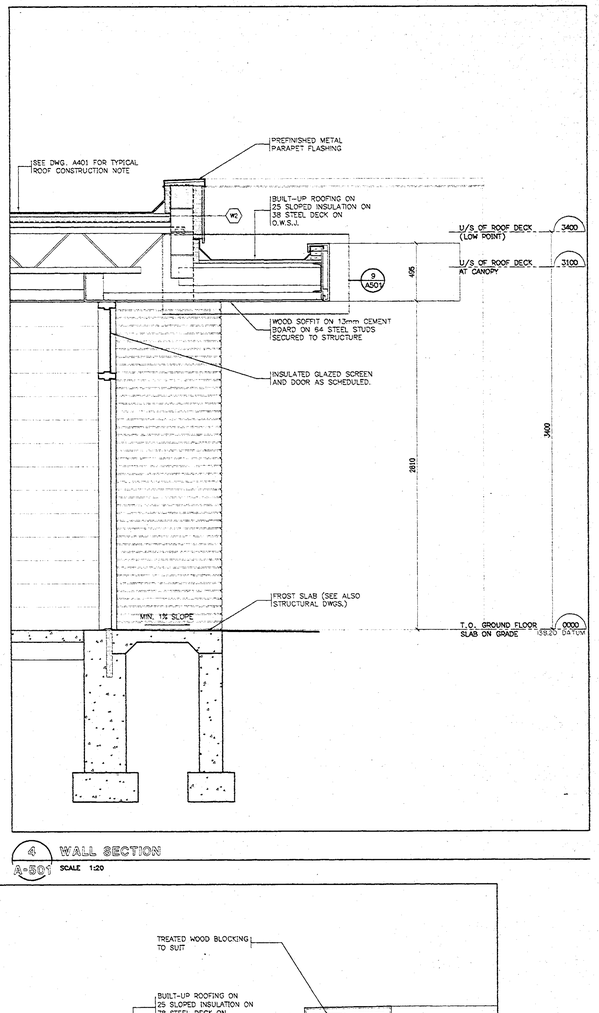
1 WALL SECTION
A-501 SCALE 1:20



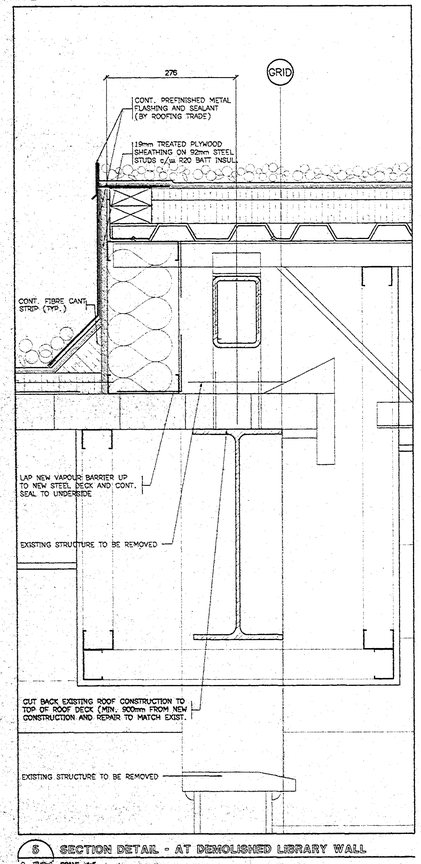
2 WALL SECTION
A-501 SCALE 1:20



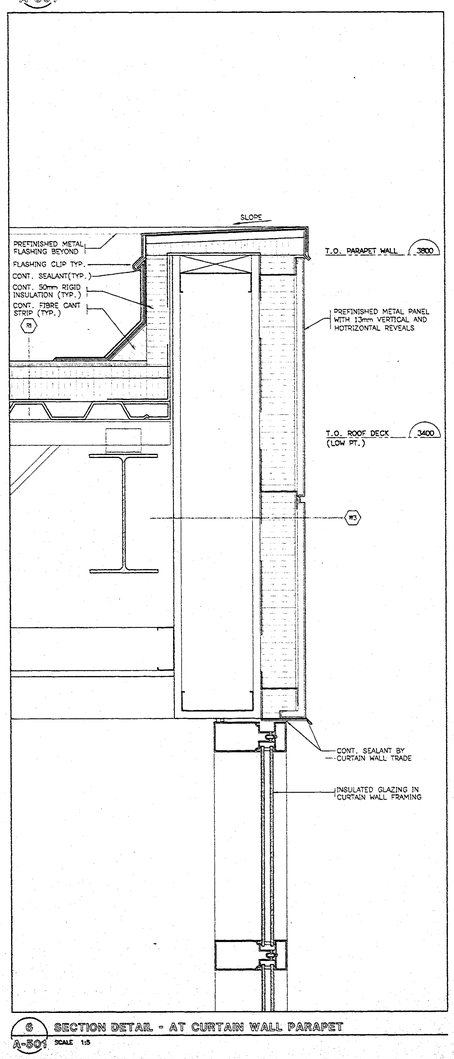
3 WALL SECTION
A-501 SCALE 1:20



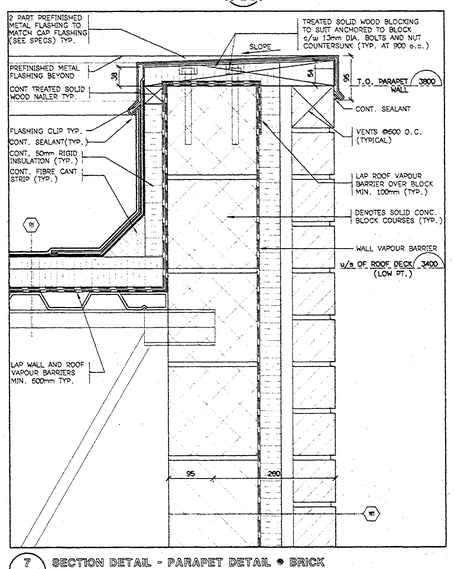
4 WALL SECTION
A-501 SCALE 1:20



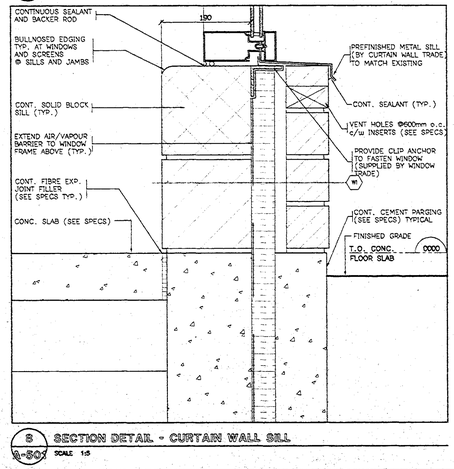
5 SECTION DETAIL - AT DEMOLISHED LIBRARY WALL
A-501 SCALE 1:5



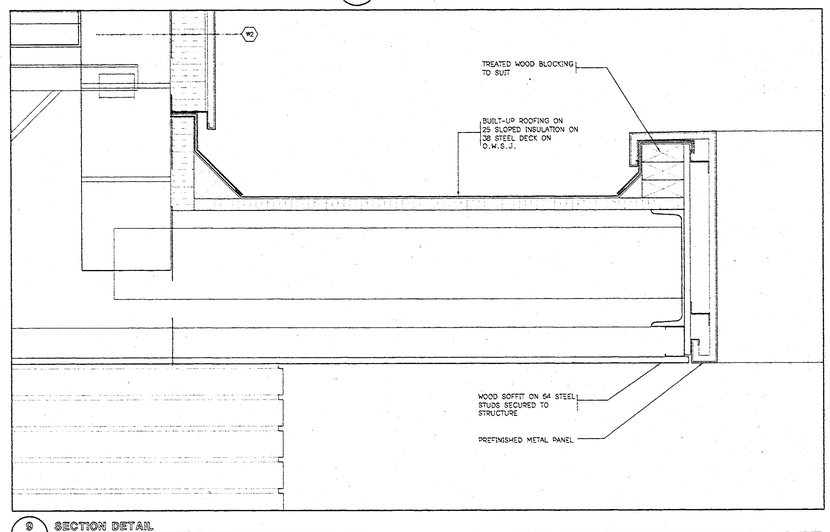
6 SECTION DETAIL - AT CURTAIN WALL PARAPET
A-501 SCALE 1:5



7 SECTION DETAIL - PARAPET DETAIL @ BRICK
A-501 SCALE 1:5



8 SECTION DETAIL - CURTAIN WALL SILL
A-501 SCALE 1:5



9 SECTION DETAIL
A-501 SCALE 1:5

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DATE

REVISIONS

No.	Date	Description
1	05\11\99	ISSUED FOR CLIENT REVIEW 100%
2	05\27\99	ISSUED FOR TENDER
3	05/28/99	ISSUED FOR BUILDING PERMIT

KEY PLAN

PROJECT

A
S
M
E
U
F
B

ONTARIO ASSOCIATION OF ARCHITECTS
PAUL ARMIN STEVENS
LICENCE
4524

ZASA
ZAWADZKI ARMIN STEVENS
ARCHITECTS

510 FRONT ST. WEST
SUITE 103
TORONTO, ONTARIO
M5V 1B8

TEL:
416-979-9834
FAX:
416-979-3763

PROJECT
ST. CHRISTOPHER CATHOLIC ELEMENTARY SCHOOL
OSHAWA, ONTARIO

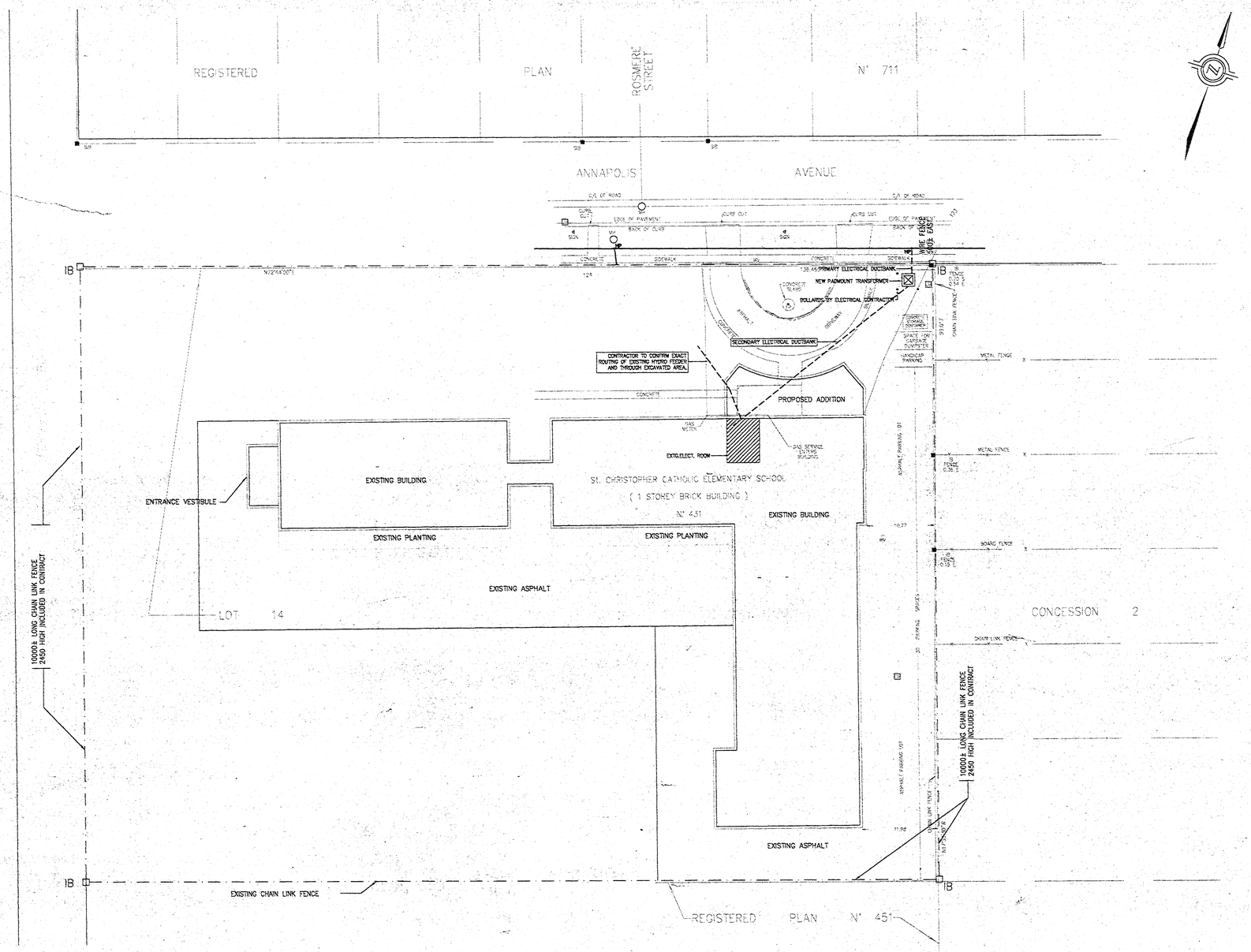
The Durham Catholic District School Board

SCALE: AS SHOWN
DRAWN: TDS
DATE: FEB 16, 1999
REV. NO.

TITLE
WALL SECTIONS AND DETAILS

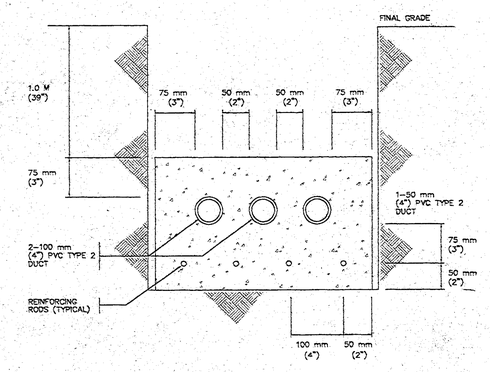
DRAWING: A-501
REV.
PROJECT: 9884-30

SC-0053



1 ELECTRICAL SITE PLAN

SCALE: 1 : 300



1 SECTION THRU SECONDARY DUCTBANK

SCALE: N.T.S

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DATE:

REVISIONS:

No.	DATE	DESCRIPTION
1.	04/04/99	CO-ORDINATION
2.	05/13/99	ISSUED FOR SPEC REVIEW
3.	05/26/99	ISSUED FOR TENDER
4.	05/28/99	ISSUED FOR BUILDING PERMIT

KEY PLAN

PROJECT

REGISTERED PROFESSIONAL ENGINEER W.C.B. DAY 98-91 PROVINCE OF ONTARIO

SC-0054

CONSTRUCTION NORTH

Day & Behn Engineering Inc.
Mechanical and Electrical Consulting Engineers
3109 Harbour Row, W. Ste. 208, Weston, Ont. M9L 2Y8
Tel. (416) 741-8121 Fax (416) 741-3579
email: dandb@idirect.com

PROJECT

ST. CHRISTOPHER CATHOLIC ELEMENTARY SCHOOL

OSHAWA, ONTARIO

The Durham Catholic District School Board

SCALE	DRAWN
AS SHOWN	RD
DATE	REV. NO.
MARCH 05	

TITLE

ELECTRICAL SITE PLAN AND DETAILS

DRAWING	REV.	PROJECT
E-1		98-91

PLOTTED: 05/28/99

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
'F' GA-2-1	NEW/RELOCATED FLUORESCENT LUMINAIRE, FIXTURE TYPE 'F' CONNECTED TO PANEL 'GA' CIRCUIT # 2 AND SWITCH # 1.
'F' GA-2-1	EXISTING FLUORESCENT LUMINAIRE, FIXTURE TYPE 'F' CONNECTED TO PANEL 'GA' CIRCUIT # 2 AND SWITCH # 1.
	STRIP LIGHT.
$	SINGLE POLE TOGGLE SWITCH 120 VOLT.
$F	EXHAUST FAN SWITCH. (SUPPLIED AND INSTALLED BY DIV. 16)
$V	VARIABLE SPEED SWITCH.
	CEILING MOUNTED EXIT LIGHT COMPLETE WITH DIRECTIONAL ARROWS AS SHOWN.
	WALL MOUNTED EXIT LIGHT.
	CEILING MOUNTED EXIT LIGHT.
	SINGLE OR DOUBLE REMOTE BATTERY OPERATED EMERGENCY LIGHTS
B	EMERGENCY BATTERY UNIT COMPLETE WITH DOUBLE HEAD.
	WALL MOUNTED DUPLEX RECEPTACLE.
	WALL MOUNTED DUPLEX RECEPTACLE ABOVE COUNTER
	FLOOR MOUNTED QUADUPLEX RECEPTACLE.
D	FLOOR MOUNTED COMBINATION DATA/TEL OUTLET
	WALL MOUNTED DATA OUTLET.
	WALL MOUNTED TELEPHONE OUTLET.
D	WALL MTD DATA/TEL. OUTLET
	DIRECT CONNECTION TO EQUIPMENT AS NOTED.
	MOTOR CONNECTION TO EQUIPMENT AS NOTED.
	UNFUSED DISCONNECT SWITCH.
F	FUSED DISCONNECT SWITCH.
T	TIME CLOCK.
JB	CEILING OR WALL MOUNTED JUNCTION BOX
	SURFACE MOUNTED PANEL.
	RECESSED MOUNTED PANEL.
H	FIREMAN'S HANDSET.
	FIRE ALARM MANUAL PULL STATION.
	SMOKE DETECTOR.
	HEAT DETECTOR 57 C (135 F) AND RATE OF RISE.
	FIRE ALARM HORN
	DUCT MOUNTED SMOKE DETECTOR.
	MUSIC/P.A. SPEAKER TO REMAIN AND/OR RELOCATE AS SHOWN.
	FIRE ALARM ANNUNCIATOR PANEL
WP	DENOTES WEATHERPROOF DEVICE(S)
AFF	ABOVE FINISHED FLOOR
GFI	GROUND FAULT INTERRUPTER
RR	DENOTES DEVICE(S) TO BE REMOVED AND REPLACE WITH NEW
E	DENOTES EXISTING DEVICE(S) TO BE REMAIN.
RL	DENOTES EXISTING DEVICE(S) TO BE RELOCATED.
ER	DENOTES EXISTING DEVICE(S) IN RELOCATED POSITION.
R	DENOTES EXISTING DEVICE(S) TO BE REMOVED.
RE	DENOTES EXISTING DEVICE(S) TO BE REMOVED AND RE-INSTALLED IN SAME LOCATION.
SWBD	DENOTES SWITCHBOARD
LP	DENOTES LIGHTING PANEL
PP	DENOTES POWER PANEL
DP	DENOTES DISTRIBUTION PANEL
RP	DENOTES RECEPTACLE PANEL
TL	DENOTES TWIST LOCK
IG	DENOTES ISOLATED GROUND.

NOTES

N.1 ALL DEVICES IN NEW ROOMS G102, G103, G104 AND G105 ARE NEW UNLESS OTHERWISE NOTED.

N.2 FIXTURES TYPE 'A', AND 'F4' ARE NEW AND CONNECTED TO EXISTING LIGHTING CIRCUIT IN CORRIDOR.

N.3 CONNECT HEAT DETECTORS TO NEAREST EXISTING FIRE ALARM DEVICE IN APPLICABLE ZONE.

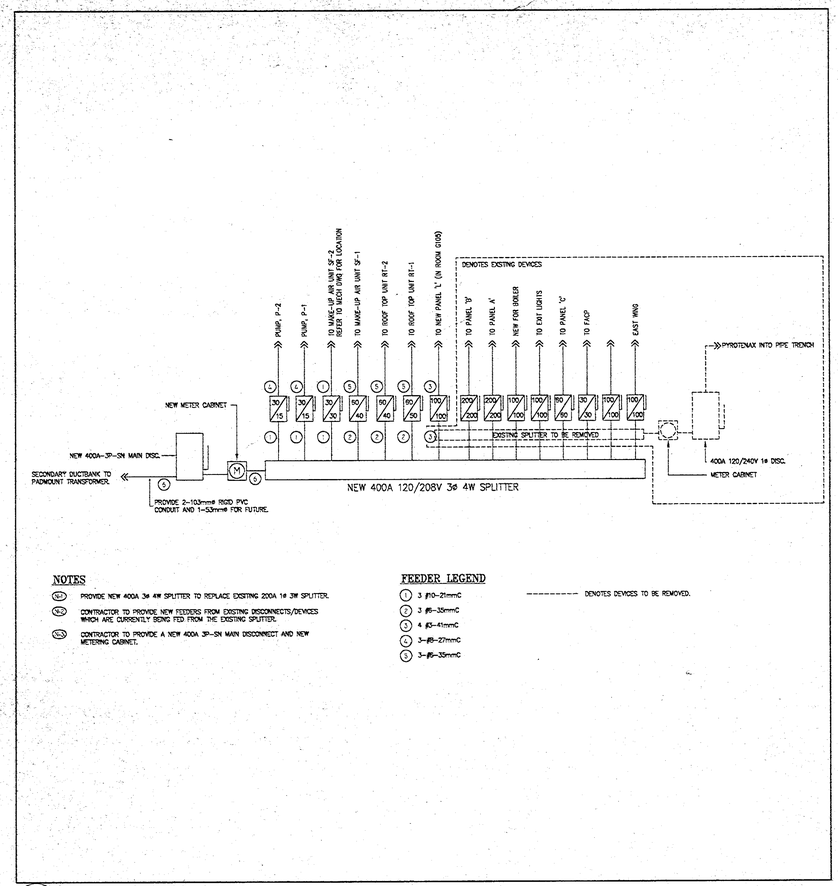
N.4 NOT USED.

N.5 PROVIDE NEW SMOKE ALARM IN EXTENDED CORRIDOR AND CONNECT TO EXISTING CORRIDOR ZONE.

N.6 PROVIDE NEW FIRE ALARM HORNS TO MATCH EXISTING AND CONNECT TO NEAREST EXISTING ZONE.

N.7 PROVIDE NEW 15A-1P BREAKERS IN EXISTING PANEL 'Z' TO MATCH EXISTING FOR THESE FANS.

N.8 PROVIDE AN INSULATED GROUND WIRE IN EACH CONDUIT.



NOTES

N.1 PROVIDE NEW 400A 3ø 4W SPLITTER TO REPLACE EXISTING 200A 1ø 3W SPLITTER.

N.2 CONTRACTOR TO PROVIDE NEW FEEDERS FROM EXISTING DISCONNECTS/DEVICES WHICH ARE CURRENTLY BEING FED FROM THE EXISTING SPLITTER.

N.3 CONTRACTOR TO PROVIDE A NEW 400A 3P-SN MAIN DISCONNECT AND NEW METERING CABINET.

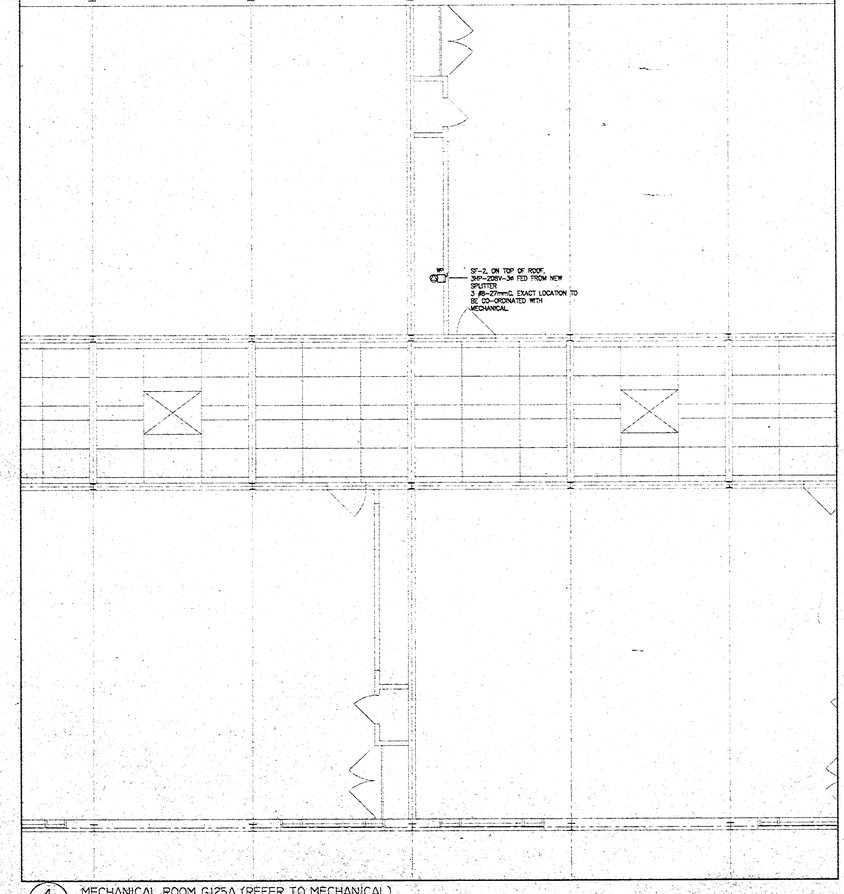
FEEDER LEGEND

1. 3 #10-21mmC
2. 3 #6-35mmC
3. 4 #3-41mmC
4. 3-#8-27mmC
5. 3-#6-35mmC

---------- DENOTES DEVICES TO BE REMOVED.

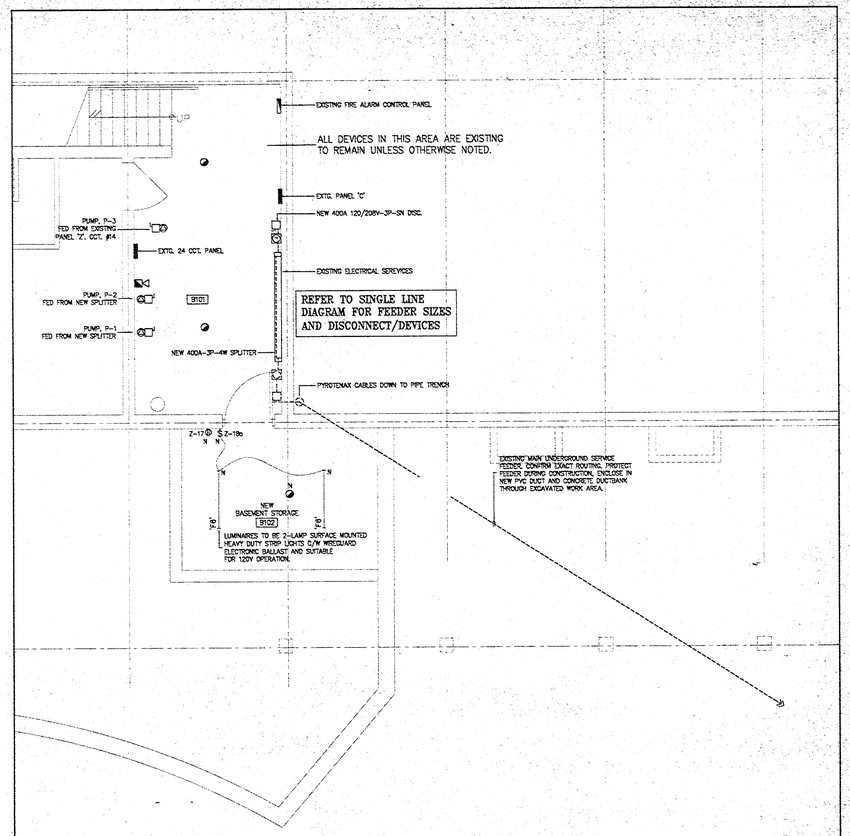
3 NEW SINGLE LINE DIAGRAM

SCALE: N.T.S.



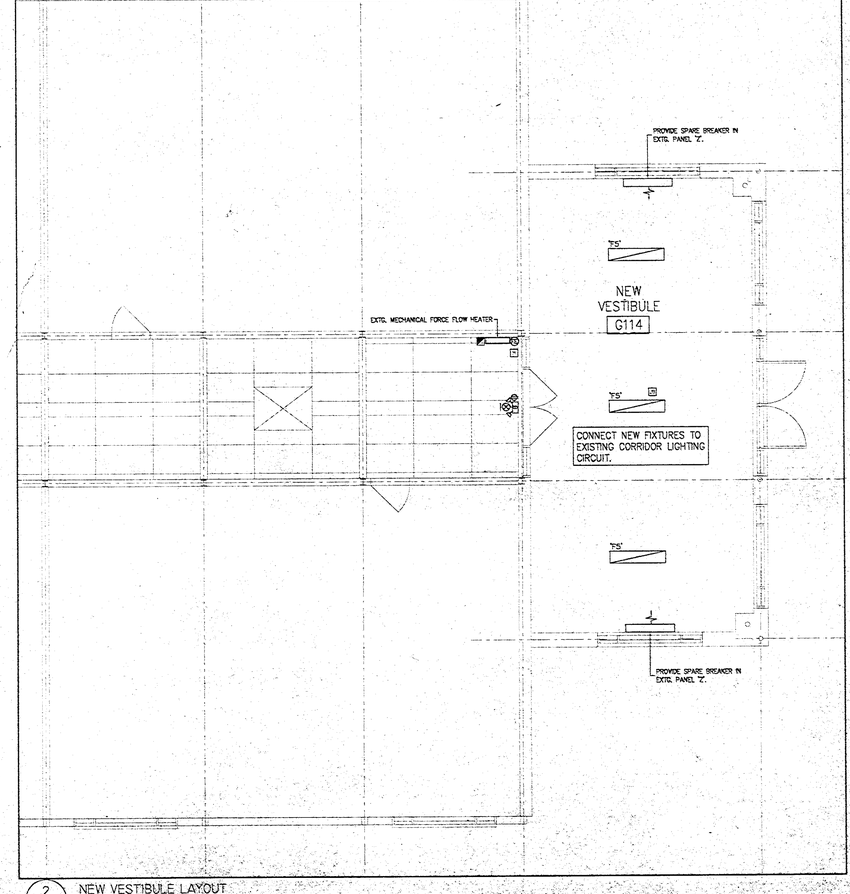
4 MECHANICAL ROOM G125A (REFER TO MECHANICAL)

SCALE: 1 : 50



1 NEW BASEMENT LAYOUT

SCALE: 1 : 50



2 NEW VESTIBULE LAYOUT

SCALE: 1 : 50

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REVISIONS

No.	DATE	DESCRIPTION
1.	04/05/99	CO-ORDINATION
2.	05/15/99	ISSUED FOR 60% REVIEW
3.	05/26/99	ISSUED FOR TENDER
4	06/28/99	ISSUED FOR BUILDING PERMIT

KEY PLAN

PROJECT:

REVISED PROFESSIONAL ENGINEER W.C.S. DAY 98-91 PROVINCE OF ONTARIO

SC-0055

CONSTRUCTION NORTH

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Tel. (416) 741-8121 Fax (416) 741-5878
email: dayhahn@direct.com

PROJECT

ST. CHRISTOPHER CATHOLIC ELEMENTARY SCHOOL

OSHAWA, ONTARIO

The Durham Catholic District School Board

SCALE	DRAWN
AS SHOWN	RD
DATE	REV. NO.
MARCH-05	

TITLE

ELECTRICAL LEGEND AND PARTIAL PLANS

DRAWING	REV.	PROJECT
E-2		98-91

CAD FILE NAME: Mar 29, 99

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DATE

REVISIONS

No.	DATE	DESCRIPTION
1.	01/05/99	CO-ORDINATION
2.	03/11/99	ISSUED FOR 50% REVIEW
3.	03/26/99	ISSUED FOR TENDER
4.	03/29/99	ISSUED FOR BUILDING PERMIT

KEY PLAN

PROJECT

REGISTERED PROFESSIONAL ENGINEER
W.C.B. DAY
98-91
PROVINCE OF ONTARIO

SC-0056

CONSTRUCTION NORTH

Day & Behn Engineering Inc.
Mechanical and Electrical Consulting Engineers
3100 Steeles Ave. W., Stn. 206, Woodbridge, Ont., M4L 2T8
Tel. (416) 741-6570 Fax (416) 741-6576
email: dayben@idirect.com

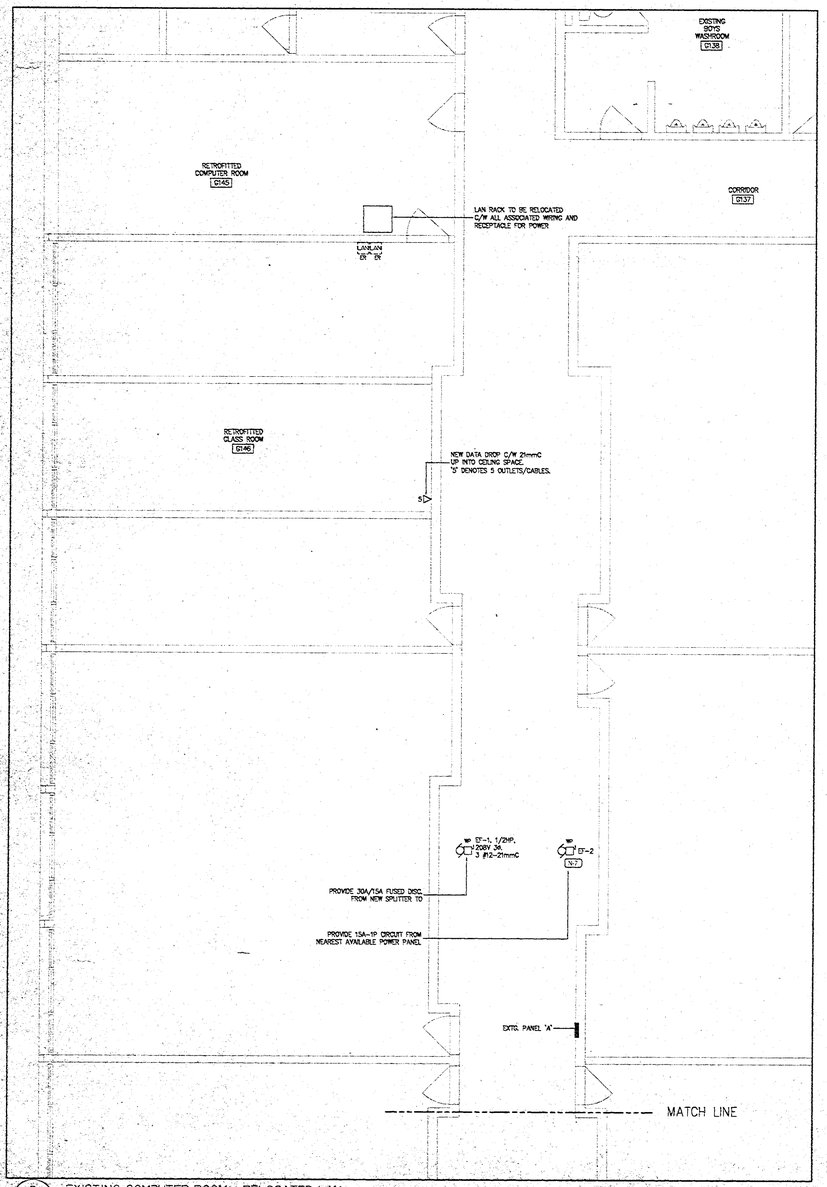
PROJECT
ST. CHRISTOPHER CATHOLIC ELEMENTARY SCHOOL
OSHAWA, ONTARIO

The Durham Catholic District School Board

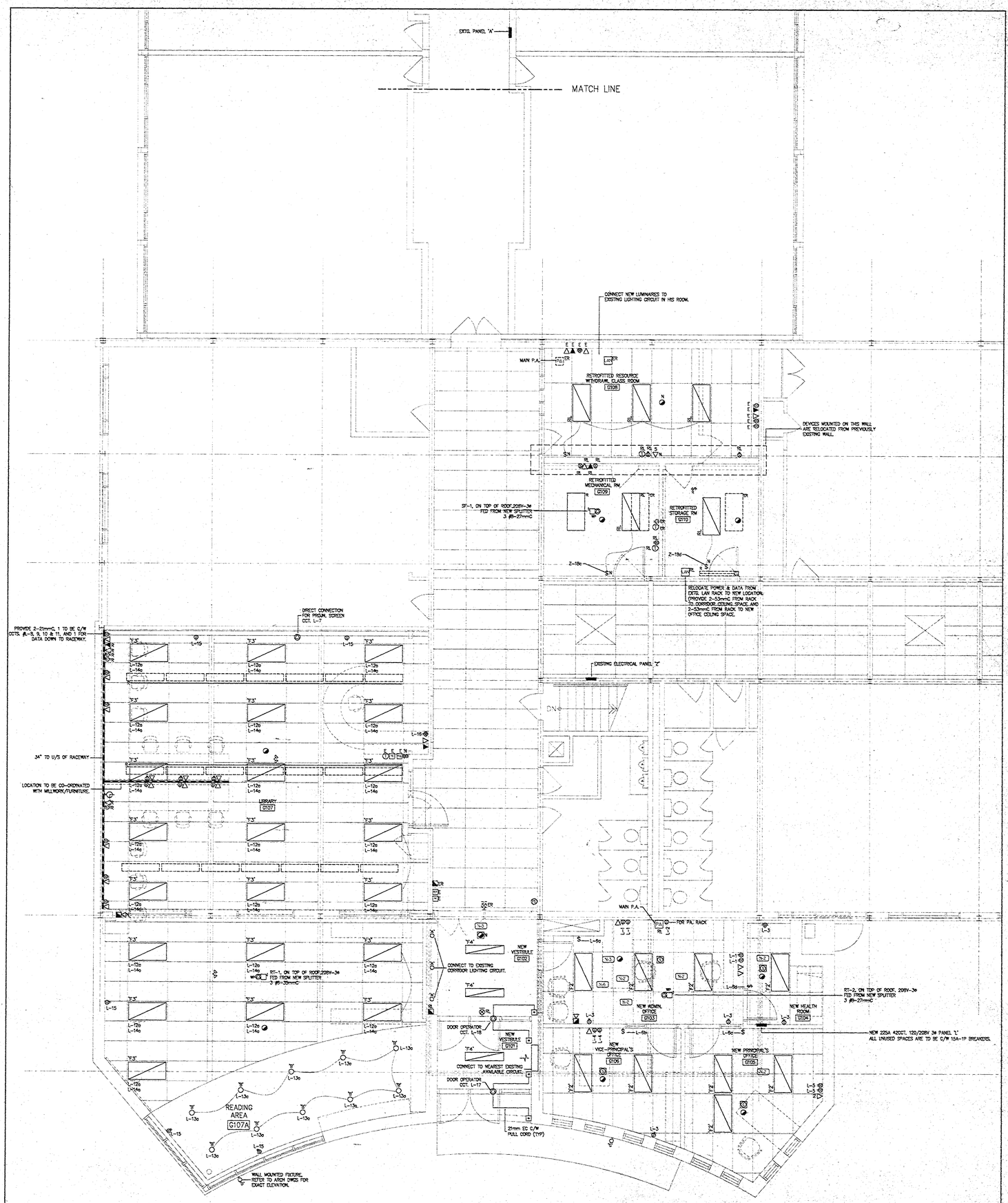
SCALE: AS SHOWN
DRAWN: RD
DATE: MARCH '05
REV. NO.:

TITLE
PARTIAL ELECTRICAL PLANS

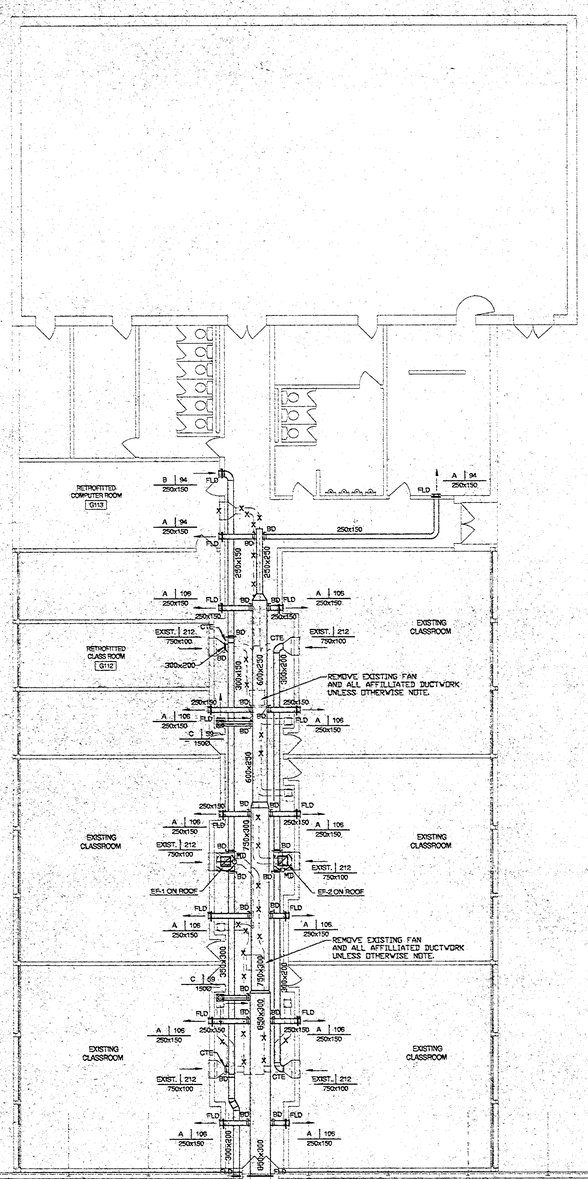
DRAWING: E-3
REV.:
PROJECT: 98-91

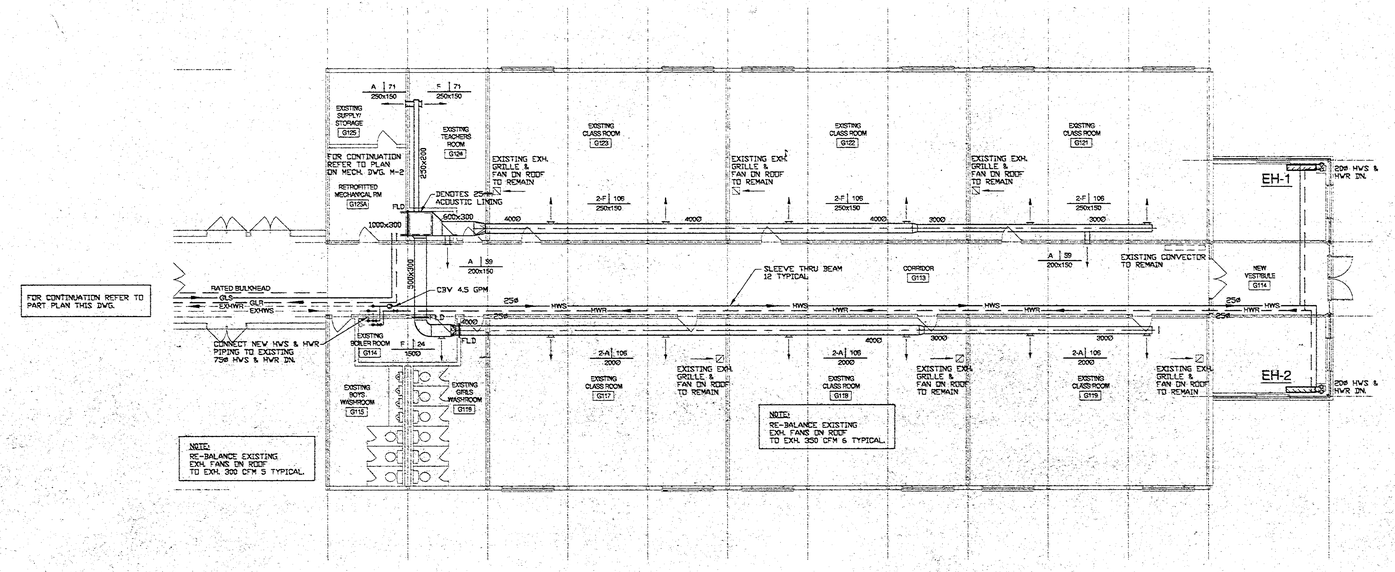


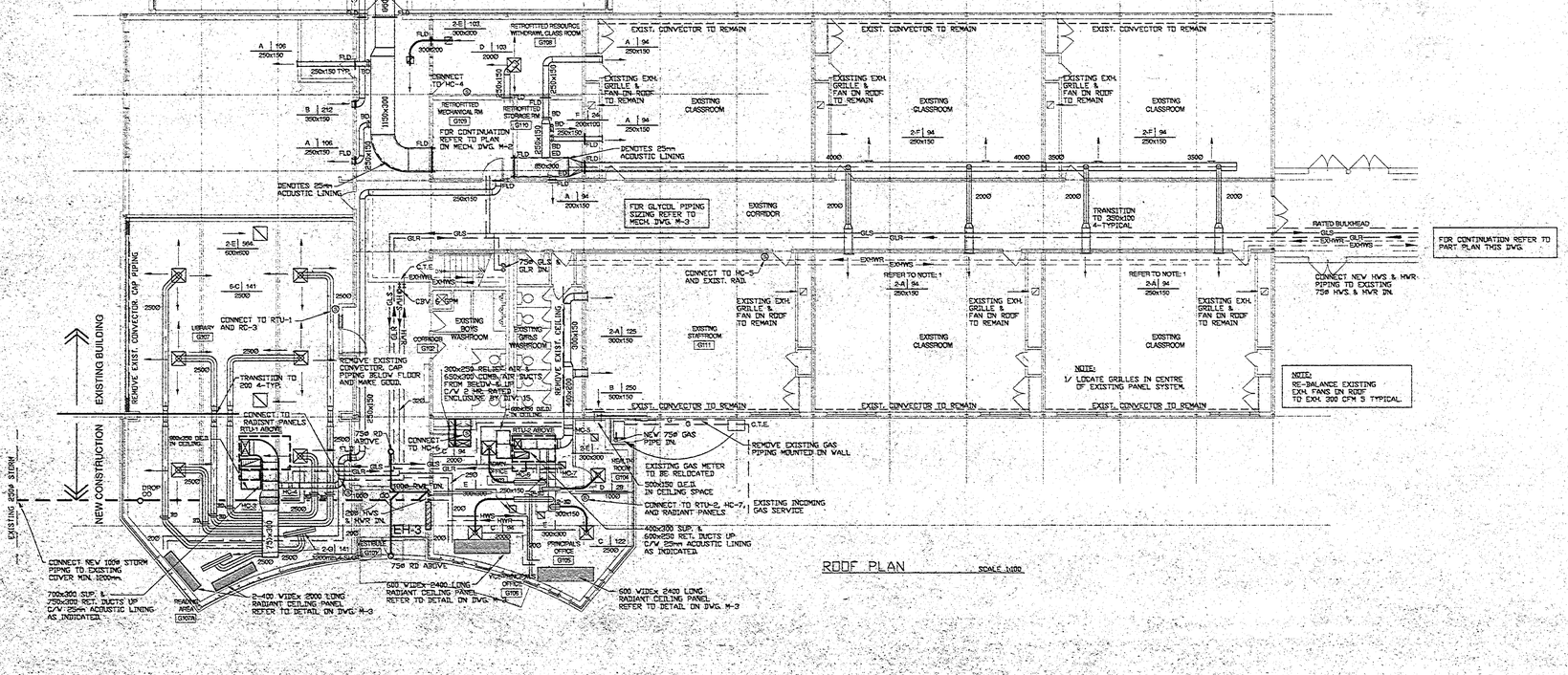
2 EXISTING COMPUTER ROOM - RELOCATED LAN
SCALE: 1 : 50



1 PROPOSED LIBRARY AND NEW OFFICES
SCALE: N.T.S.







ROOF PLAN SCALE 1:100

THIS DRAWING IS NOT TO BE SCALED.
NOTES TO ARCHITECT, SURVEY, STRUCTURAL, MECHANICAL, ELECTRICAL, LANDSCAPE, ETC. CONSULTANT DRAWINGS BEFORE PROCEEDING WITH THE WORK.

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REVISIONS

No.	Date	Description
1	05/26/99	ISSUED FOR TENDER
2	05/28/99	ISSUED FOR BUILDING PERMIT

KEY PLAN

PROJECT

A
S
M
E
ST
P
B

REGISTERED PROFESSIONAL ENGINEER W.C.B. DAY 9891 PROVINCE OF ONTARIO

SC-0057

CONSTRUCTION NORTH

Day & Behn Engineering Inc.
Mechanical and Electrical Consulting Engineers
3109 Harbine Ave. N. Ste. 208, Nashville, ON. MIL 3T5
Tel. (416) 741-8131 Fax (416) 741-8579
email: dayben@bellnet.com

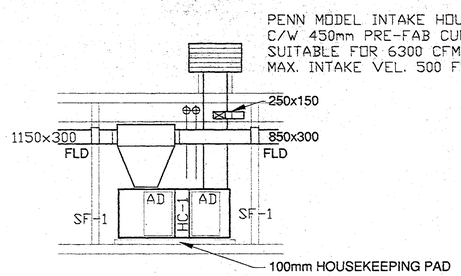
PROJECT
ST. CHRISTOPHER CATHOLIC ELEMENTARY SCHOOL
OSHAWA, ONTARIO

SCALE 1:100 DRAWN KB
DATE MARCH '05 REV. NO.

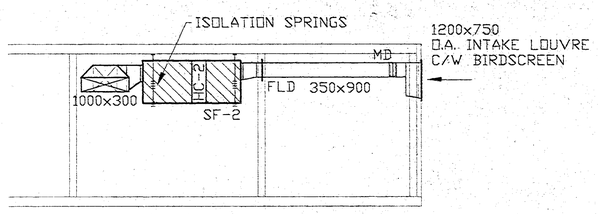
TITLE
MECHANICAL GROUND FLOOR PLAN

DRAWING M-1 REV. PROJECT 98-91

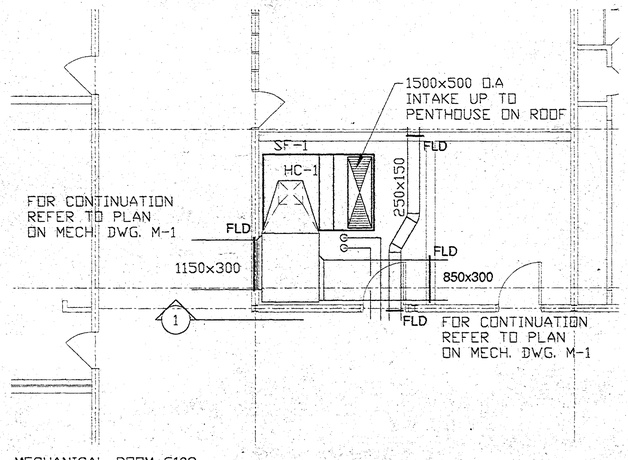
DRAWN PLOTTED: MAY 28, 1999



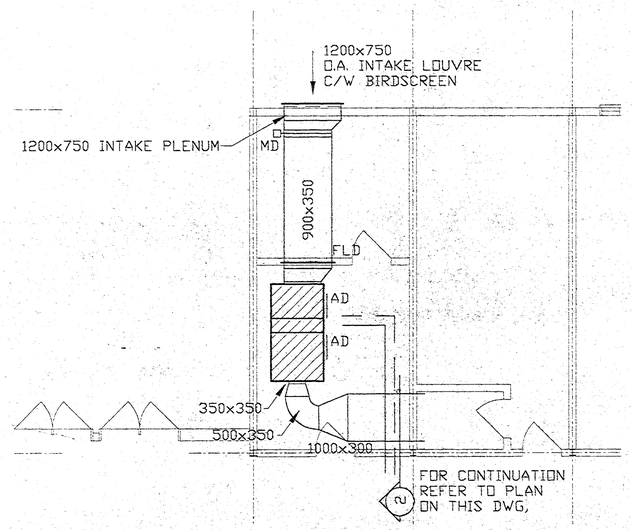
SECTION 1 SCALE 1:50



SECTION 2 SCALE 1:50



MECHANICAL ROOM G109 SCALE 1:50



MECHANICAL ROOM G125A SCALE 1:50

REMOVE EXISTING EXHAUST FAN ON ROOF

EF-1 EF-2

REMOVE EXISTING EXHAUST FAN ON ROOF

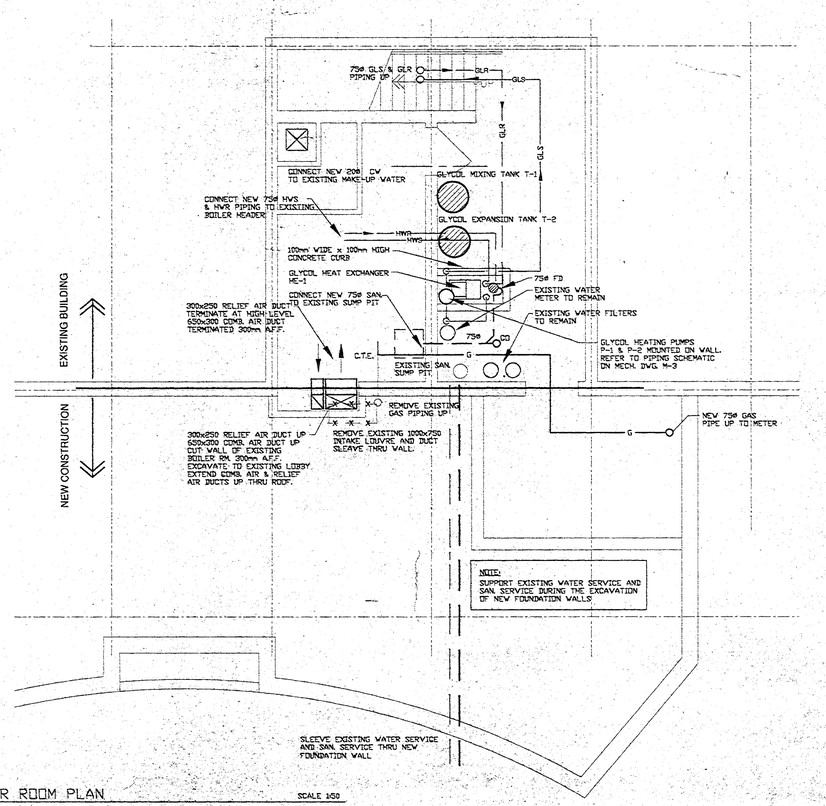
PENN MODEL INTAKE HOUSING
C/W 450mm PRE-FAB CURB
SUITABLE FOR 5200 CFM.
MAX. INTAKE VEL 500 FPM

PENN MODEL INTAKE HOUSING
C/W 450mm PRE-FAB CURB
SIMILAR TO SF-1 INTAKE
C/W BAFFLE TO SEPARATE
RELIEF AIR & COMB. AIR

RTU-1 RTU-2

750 RD

PARTIAL ROOF PLAN SCALE 1:100



BOILER ROOM PLAN SCALE 1:50

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REFER TO ARCHITECTURAL, SURVEY, STRUCTURAL, MECHANICAL, ELECTRICAL, LANDSCAPE, ETC. CONSULTANT DRAWINGS BEFORE PROCEEDING WITH THE WORK.

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REVISIONS

No.	Date	Description
1.	05/26/99	ISSUED FOR TENDER
2.	05/28/99	ISSUED FOR BUILDING PERMIT

KEY PLAN

PROJECT

W.C.B. DAY
1991
REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

SC-0058

CONSTRUCTION NORTH

Day & Behn Engineering Inc.
Mechanical and Electrical Consulting Engineers
3100 Steeles Ave. W., Stn. 205, Weston, Ont. M3L 2T8
Tel. (416) 741-8121 Fax (416) 741-8278
email: dbybehn@direct.com

PROJECT
ST. CHRISTOPHER
CATHOLIC
ELEMENTARY SCHOOL

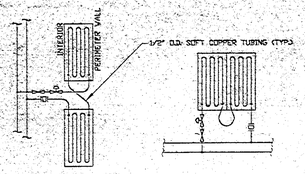
OSHAWA, ONTARIO

SCALE	DRAWN
AS NOTED	KB
DATE	REV. NO.
MARCH 05	

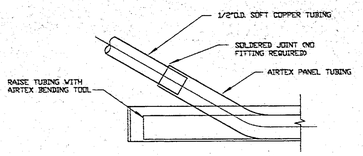
TITLE
MECHANICAL
ROOF PLAN
MECH. ROOMS
AND SECTIONS

DRAWING	REV.	PROJECT
M-2		98-9

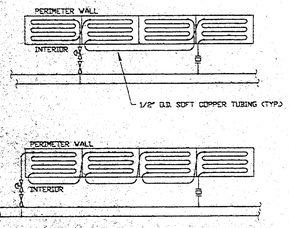
DRAWING OPTION: MAY 25, 1999



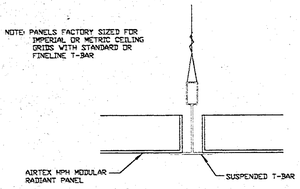
TYPICAL TWO PANEL HOOK-UPS



TYPICAL PANEL CONNECTION



TYPICAL MULTIPLE PANEL HOOK-UPS



TYPICAL PANEL EXPANSION GAP

MODULAR RADIANT PANEL DETAILS

EQUIPMENT SCHEDULE

REF.	DESCRIPTION	CAPACITY AIR (CFM) WATER (GPM)	STEAM (MBH)	COOL (MBH)	TOTAL S.P. (IN.)	HEAD LOSS (FT.)	MOTOR (BHP)	ELECTRICAL POWER	VOLTS	PHASE	MANUFACTURER	MODEL NO.	WEIGHT (lbs)	REMARKS	STARTER	CONTROLS
RTU-1	ROOF TOP A/C UNIT LIBRARY	2820	–	90,000	.75"	–	–	–	200	3	CARRIER	50TJD08, 7.5 TONS	1000	C/W PRE-FAB ROOF CURB AND LOW AMBIENT CONTROL MIN. 750 CFM O.A. REFER TO SPEC.	DISC. BY SUPPLIER	SPACE SENSOR H/C BAS
RTU-2	ROOF TOP A/C UNIT ADMIN.	1250	–	48,000	.75"	–	–	–	200	3	CARRIER	50TJD04 4.0 TONS	600	C/W PRE-FAB ROOF CURB AND LOW AMBIENT CONTROL MIN. 200 CFM O.A. REFER TO SPEC.	DISC. BY SUPPLIER	SPACE SENSOR H/C BAS
		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SF-1	MAKE-UP AIR UNIT (100% O.A.)	5300	512.4	–	1.2	–	–	5 HP	200	3	TRANE	MCC SIZE 12	1500	100% O.A. REFER TO SPEC.	H.O.A. BY SUPPLIER	DUCT MOUNTED SENSOR BAS
SF-2	MAKE-UP AIR UNIT (100% O.A.)	3300	268.4	–	1.1	–	–	3 HP	200	3	TRANE	MCC SIZE 06	1000	100% O.A. REFER TO SPEC.	H.O.A. BY SUPPLIER	DUCT MOUNTED SENSOR BAS
		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
EF-1	EXISTING CLASSROOM EXH. FAN	2000	–	–	1/2"	–	1295	1/2 HP	200	3	GREENHECK	GB-140	100	C/W INSULATED CURB	H.O.A. BY SUPPLIER	I/L WITH SF-1, BAS
EF-2	EXISTING CLASSROOM EXH. FAN	1350	–	–	1/2"	–	1250	1/4 HP	120	1	GREENHECK	GB-130	75	C/W INSULATED CURB	H.O.A. BY SUPPLIER	I/L WITH SF-1, BAS
		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
T-1	GLYCOL MIXING TANK	–	–	–	–	–	–	1/3 HP	120	1	HAMLET & GARNEAU INC.	GMP-1052	90	REFER TO SPEC.	H.O.A. BY SUPPLIER	–
T-2	EXPANSION TANK	–	–	–	–	–	–	–	–	–	AMTROL	SX-110V	–	REFER TO SPEC.	–	–
		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
P-1 & 2	GLYCOL HEATING PUMPS	97 GPM	–	–	–	30	1750	1 1/2 HP	200	3	ARMSTRONG	SERIES 180-30	–	REFER TO SPEC.	H.O.A.	BAS
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
HE-1	HEAT EXCHANGER													REFER TO SPEC.		

HEATING SCHEDULE

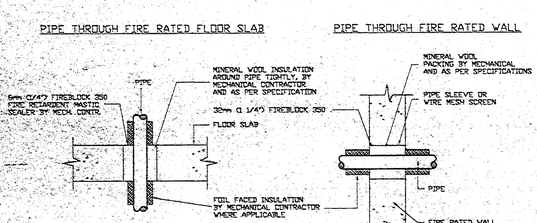
TYPE	DESCRIPTION	MANUFACTURER & MODEL NO.	HEATING OUTPUT (BTU'S/FT.)	NUMBER OF ELEMENT	TYPE OF ELEMENT	MOUNTING HEIGHT (mm)	AIR (CFM)	ELECTRICAL POWER	VOLT	PHASE	REMARKS
EH-1	ENT. HEATER	ENG. AIR CUH-3 ARRANGEMENT 3	21.45 MBH	–	–	100 A.F.F.	300	1/25 HP	120	1	FULLY EXPOSED ENCLOSURE C/W INTEGRAL STAT
EH-2	ENT. HEATER	ENG. AIR CUH-3 ARRANGEMENT 3	21.45 MBH	–	–	100 A.F.F.	300	1/25 HP	120	1	FULLY EXPOSED ENCLOSURE C/W INTEGRAL STAT
EH-3	ENT. HEATER	ENG. AIR CUH-3 ARRANGEMENT 3	21.45 MBH	–	–	100 A.F.F.	300	1/25 HP	120	1	FULLY EXPOSED ENCLOSURE C/W INTEGRAL STAT

COIL SCHEDULE

REF.	DESCRIPTION	MODEL NO (IN.xIN.)	ROWS / FINS PER FT.	TYPE AND SERIES	AIR FLOW (CFM)	PRESSURE DROP (IN.)	AIR °F E.A.T. DB/WB	AIR °F L.A.T. DB/WB	WATER FLOW (GPM)	HEAD LOSS (FT.)	WATER °F E.W.T.	WATER °F L.W.T.	FACE VEL FPM	REMARKS
HC-1	SF-1 HEATING COIL	64"x38"	2 / 106	DELTA-FLO ALUM. FIN.	6300	.18	-5°F	70°F	57.83	4.33	170°F	150°F	512	40% PROP. GLYCOL
HC-2	SF-2 HEATING COIL	44"x27"	2 / 111	DELTA-FLO ALUM. FIN.	3300	.21	-5°F	70°F	30.29	4.15	170°F	150°F	564	40% PROP. GLYCOL
HC-3	RTU-1 HEATING COIL	32"X19"	2 / 110	PRIMA-FLO ALUM. FIN.	2400	.18	55°F	92°F	9.5	.58	170°F	150°F	500	40% PROP. GLYCOL
HC-4	RTU-1 HEATING COIL	9"X8"	1 / 110	PRIMA-FLO ALUM. FIN.	220	.11	55°F	75°F	.5	.40	170°F	150°F	586	40% PROP. GLYCOL
HC-5	RTU-2 HEATING COIL	14"X9"	1 / 110	PRIMA-FLO ALUM. FIN.	530	.12	55°F	80°F	1.2	1.2	170°F	150°F	905	40% PROP. GLYCOL
HC-6	RTU-2 HEATING COIL	10"X8"	1 / 110	PRIMA-FLO ALUM. FIN.	280	.13	55°F	75°F	.9	.43	170°F	150°F	624	40% PROP. GLYCOL
HC-7	RTU-2 HEATING COIL	12"X9"	2 / 110	PRIMA-FLO ALUM. FIN.	460	.21	55°F	100°F	2.1	3.6	170°F	150°F	613	40% PROP. GLYCOL

DIFFUSER & GRILLE/REGISTER SCHEDULE

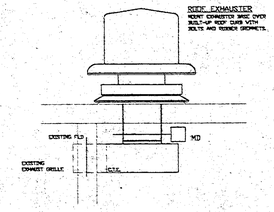
TYPE	DESCRIPTION	E.H. PRICE MODEL NO.	FINISH	VOLUME DAMPER	REMARKS
A	SUPPLY REGISTER	5200/N/L/A/1P3	WHITE	OPPOSED BLADE	WALL MOUNTED SIZE AS INDICATED ON PLAN
B	RETURN REGISTER	5200/N/L/A/1P3	WHITE	OPPOSED BLADE	WALL MOUNTED SIZE AS INDICATED ON PLAN
C	SUPPLY DIFFUSER	500x500/SCDA	WHITE	VCR-S BUTTERFLY	LAY-IN CEILING
D	SUPPLY DIFFUSER	300x300/SCD/600x600 MODULE	WHITE	VCR-S BUTTERFLY	LAY-IN CEILING
E	RETURN GRILLE	80/TD	WHITE	–	LAY-IN CEILING SIZE AS INDICATED ON PLAN
F	SUPPLY REGISTER	5200/TD/L/A/1P3	PRIME COATED	OPPOSED BLADE	EXPOSED DUCT MOUNTED, SIZE AS INDICATED ON PLAN
G	SUPPLY LINEAR	525-100/1200mm/4-SLOT	WHITE	–	C/W SUPPLY BOOT, TYPE X MITRED END FLANGE



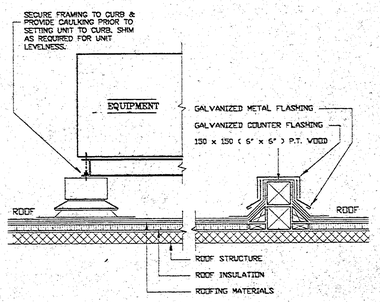
NOTE: AS PER U.L.C. No. SP-192

NOTE: AS PER U.L.C. No. SP-188

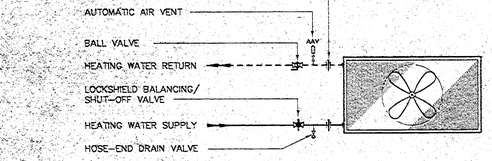
DETAIL OF PIPE THROUGH FIRE SEPARATION



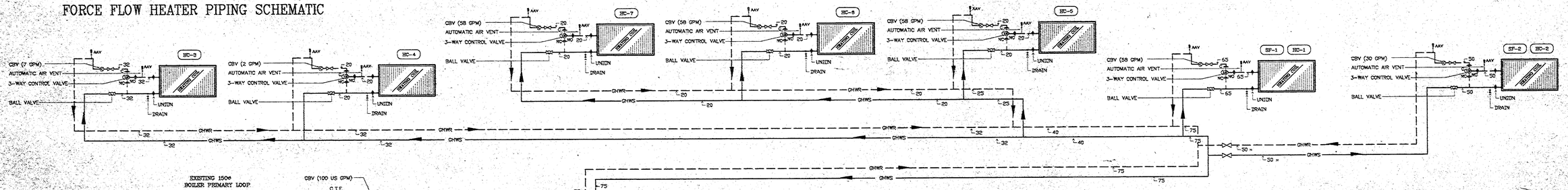
EXH. FAN DETAIL

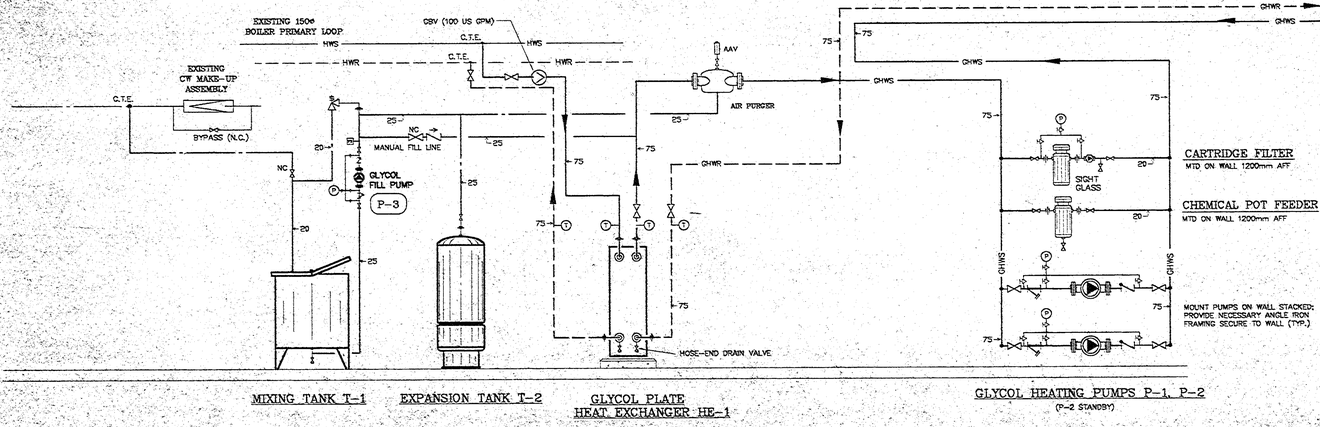


EQUIPMENT ROOF SUPPORT DETAIL-TYPE1



FORCE FLOW HEATER PIPING SCHEMATIC

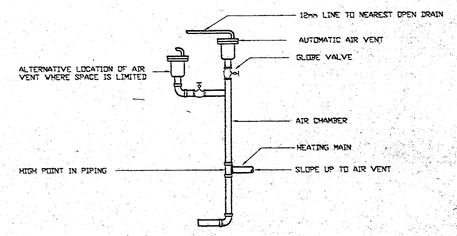




MIXING TANK T-1 | EXPANSION TANK T-2 | GLYCOL PLATE HEAT EXCHANGER HE-1

GLYCOL HEATING PUMPS P-1, P-2 (P-2 STANDBY)

HEATING WATER PIPING SCHEMATIC



AUTOMATIC AIR VENT DETAIL

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DATE

REVISIONS

No.	Date	Description
1	05/26/99	ISSUED FOR TENDER
2	05/28/99	ISSUED FOR BUILDING PERMIT

KEY PLAN

PROFESSIONAL ENGINEER PROVINCE OF ONTARIO W.C.S. DAY 90391

SC-0059

CONSTRUCTION NORTH

Day & Behn Engineering Inc.
Mechanical and Electrical Consulting Engineers
3109 Harvester Road, Ste. 210, Burlington, Ont. L7N 3N8
Tel. (905) 765-8121 Fax (905) 765-8125
email: dayben@interlog.com

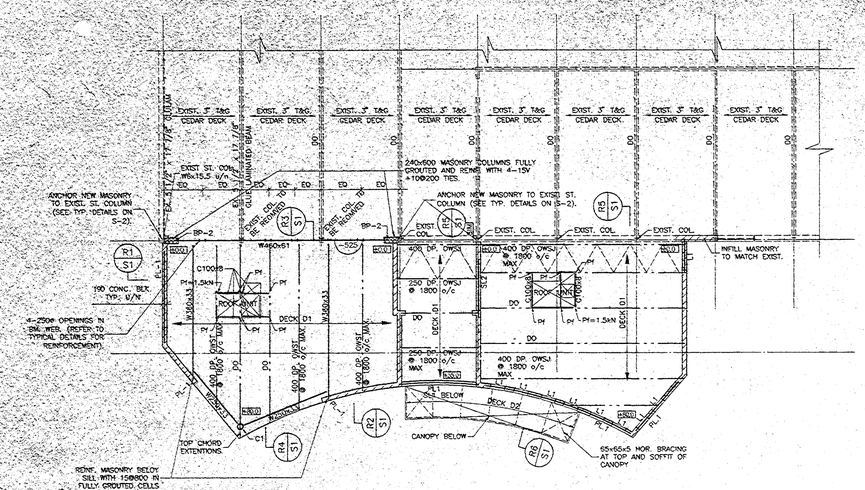
PROJECT
ST. CHRISTOPHER CATHOLIC ELEMENTARY SCHOOL
OSHAWA, ONTARIO

SCALE: NONE | DRAWN: KB
DATE: MARCH 05 | REV. NO.

TITLE
MECHANICAL SCHEMATIC SCHEDULES AND DETAILS

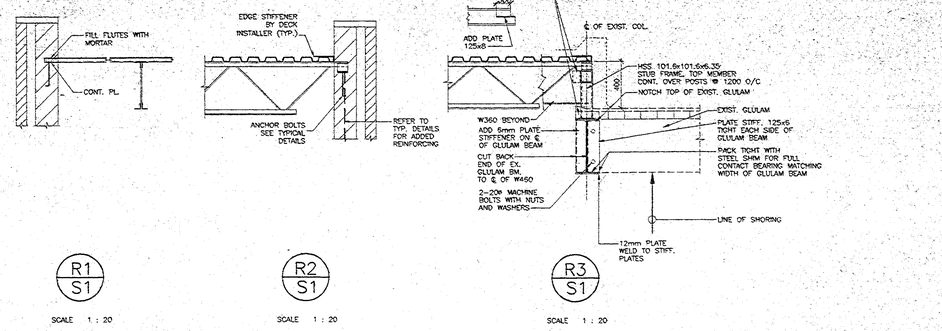
DRAWING: M-3 | REV. | PROJECT: 98-9

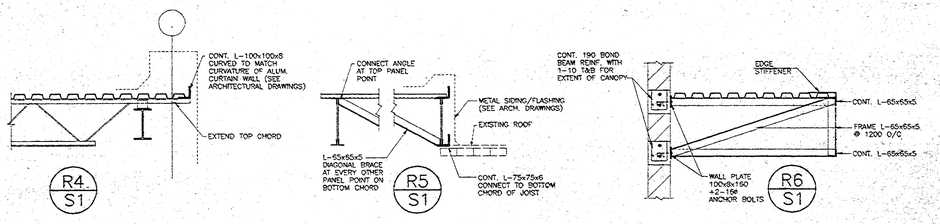
DRAWING PLOTTED: MAY 26, 1999

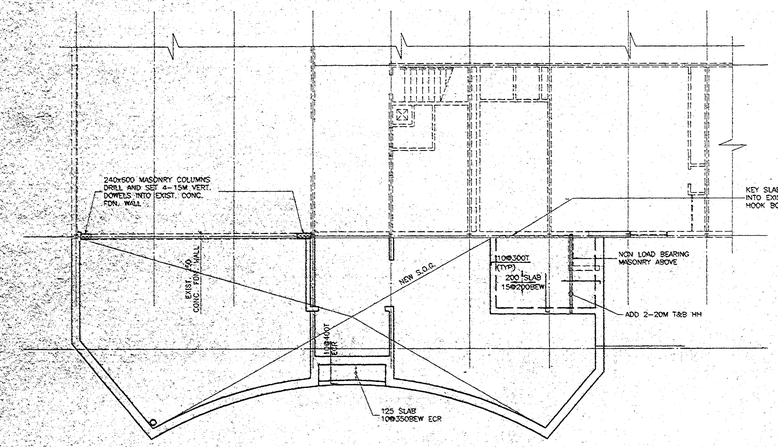


ROOF FRAMING PLAN

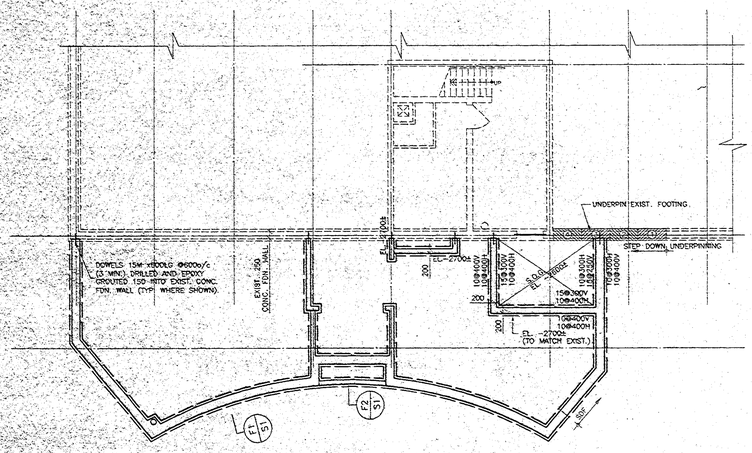
1. SEE GENERAL REQUIREMENTS ON DRAWING S2.
2. SEE DRAWING S2 FOR TYPICAL DETAILS.
3. DATUM ELEVATION IS EL.3560.
4. UNLESS OTHERWISE NOTED ON PLAN OR DETAILS, THE FOLLOWING DATA APPLY:
   - .1 TOP OF STEEL DECK IS 0ø FROM DATUM ELEVATION.
   - .2 SET TOPS OF STEEL JOISTS AND BEAMS AT UNDERSIDE OF STEEL DECK, WHERE BEAMS SUPPORT JOISTS, SET TOPS OF BEAMS AT UNDERSIDE OF JOIST SHOES. UNLESS NOTED THUS (—)
   - .3 TRIM ALL SIDES OF FRAMED OPENINGS IN ROOF WITH C100x8.
5. MINIMUM DESIGN SNOW LOAD ON ROOF IS 1.52 kN/m2. SNOW PILING AREAS ARE NOTED ON PLAN.
6. MINIMUM DESIGN WIND UPLIFT ON ROOF IS 0.86 kN/m2.
7. "DECK D1" ON PLAN DENOTES 38 mm STEEL DECK C.N.T. = 0.76 MINIMUM. DESIGN FOR DL + LL = 0.8 + SNOW.
8. UNLESS OTHERWISE NOTED, DESIGN STEEL JOISTS FOR DL + LL = 1.25 + SNOW OR RAIN. ALSO DESIGN JOIST CHORDS FOR 1.0 kN POINT LOAD APPLIED ANYWHERE ALONG THEIR LENGTH. SEE PLANS FOR ADDITIONAL POINT LOADS. SEE TYPICAL DETAIL FOR ADDITIONAL LOAD FOR TIE JOISTS.
9. DESIGN STEEL JOISTS AND BRIDDING FOR NET FACTORED UPLIFT OF 0.61 kN/m2 DUE TO WIND.
10. PL1" ON PLAN INDICATES 75 mm X 5 mm CONTINUOUS STEEL PLATE WITH 12 mm DIAMETER X 300 mm LONG ANCHORS AT 1200 mm CENTRES IN GROUTED MASONRY CORES.
11. UNLESS OTHERWISE NOTED, PROVIDE ALL ROOF BEAMS AND JOISTS WITH 2 – 12 mm DIAMETER X 380 mm LONG ANCHOR BOLTS AT EACH WALL BEARING.
12. "L1" ON PLAN INDICATES STANDARD LINTELS (SEE GENERAL NOTES ON DRAWING S-2)
    SL-1 ON PLAN INDICATES SPECIAL LINTEL : W200x21+CONT. BOTT. PL. 180x12 WITH CURVATURE TO MATCH WALL (SEE ARCH. DRAWINGS)
    SL-2 ON PLAN INDICATES SPECIAL LINTEL : W200x21+CONT. BOTT. PL. 180x12.
13. DECK D2 ON PLAN DENOTES 38mm STEEL DECK FOR OVERHANG C.N.T.=0.76 MINIMUM. DESIGN FOR DL+LL=0.43+3.0
14. "BP-1" ON PLAN DENOTES150x16x325 BEARING PL. WITH 2–20DIA. A.BOLTS x380 LG. +HOOK. "BP-2" ON PLAN DENOTES 200x20x450 BEARING PL. WITH 4–20DIA. A.BOLTS×300LG. +HOOK.
15. "C1" ON PLAN DENOTES HSS168.300x4.78 COLUMN. WITH 250x20x250 B.PLATE +2–20DIA A.BOLTS ×380LG. +HOOK ON 40mm DRY PACK GROUT. (o/s OF B.PLATE AT EL.–60) PROVIDE 200×20×200 CAP PLATE TO u/s OF JOIST SHOES.



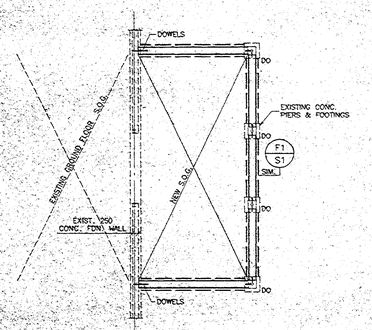




GROUND FLOOR PLAN



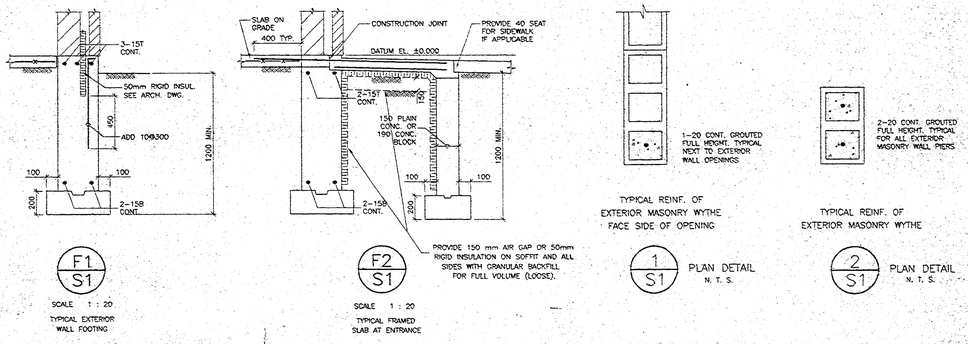
FOUNDATION and BASEMENT PLAN



WESTIBULE FOUNDATION PLAN

FOUNDATION AND GROUND FLOOR PLAN NOTES

1. SEE GENERAL REQUIREMENTS ON DRAWING S2.
2. SEE DRAWING S2 FOR TYPICAL DETAILS.
3. GROUND FLOOR DATUM ELEVATION IS ±0 AND IS LEVEL WITH EXISTING.
4. UNLESS OTHERWISE NOTED ON PLAN OR DETAILS, THE FOLLOWING DATA APPLY:
   - .1 TOP OF SLAB IS ±0 FROM DATUM ELEVATION.
   - .2 FRAMED AREAS: DESIGN LIVE LOAD IS 4.8 kN/m2.
   - .3 SET TOPS OF WALL FOOTINGS AT 1270 (TO MATCH EXIST. FIELD VERIFY) UNLESS NOTED OTHERWISE ON PLAN.
   - .4 PROVIDE CONCRETE WALL AND MASONRY WALL FOOTINGS AS PER TYPICAL DETAILS.
5. PROVIDE 100 THICK CONCRETE SLAB–ON–GRADE (WITH 150 X 150 MW 18.7/ MW 18.7 W.W.F. PLACED 50 mm BELOW TOP OF SLAB) (WITH POLYPROPYLENE FIBERS).



F1 S1 SCALE 1 : 20 TYPICAL EXTERIOR WALL FOOTING

F2 S1 SCALE 1 : 20 TYPICAL FRAMED SLAB AT ENTRANCE

1 S1 PLAN DETAIL N. T. S.

2 S1 PLAN DETAIL N. T. S.

THIS DRAWING IS NOT TO BE SCALED. REFER TO APPROPRIATE EXIST. STRUCTURAL, MECHANICAL, ELECTRICAL, LANDSCAPE, ETC. CONSULTANT DRAWING BEFORE PROCEEDING WITH THE WORK.

CONSTRUCTION MUST CONFORM TO ALL APPLICABLE CODES AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

THE CONTRACTOR WORKING FROM DRAWINGS NOT SPECIFICALLY MARKED "FOR CONSTRUCTION" MUST ASSUME FULL RESPONSIBILITY AND BEAR COSTS FOR ANY CORRECTIONS OR CHANGES RESULTING FROM THE WORK.

THIS DRAWING, AS AN INSTRUMENT OF SERVICE IS PROVIDED BY AND IS THE PROPERTY OF CARMELO ADAMS STEFANO ARCHITECT INC.

THE CONTRACTOR SHALL VERIFY AND ACCEPT RESPONSIBILITY FOR ALL DIMENSIONS AND CONDITIONS ON SITE AND SHALL NOTIFY THE APPROPRIATE CONSULTANT OF ANY VARIATIONS FROM THE SUPPLIED INFORMATION.

THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNTIL CONSIDERED.

DATE:

REVISIONS

No.	Date	Description
1	MAY. 06/99	ISSUED FOR CLIENT REVIEW
2	MAY. 27/99	ISSUED FOR TENDER
3	05/28/99	ISSUED FOR BUILDING PERMIT

REGISTERED PROFESSIONAL ENGINEER 99X445C S. S. CHUGHTAI PROVINCE OF ONTARIO

KEY PLAN

PROJECT

A

S

M

E

F

B

U

F

B

Halsall
HALSALL ASSOCIATES LIMITED
CONSULTING ENGINEERS
2900-2700 YONGE ST., P.O. BOX 2205
TORONTO ONTARIO CANADA, M4P 1E4
PHONE: (416) 487-9220 FAX: (416) 487-9756
EMAIL: INFO@HALSALL.COM

SC-0064

PROJECT:
ST. CHRISTOPHER CATHOLIC ELEMENTARY SCHOOL
OSHAWA, ONTARIO

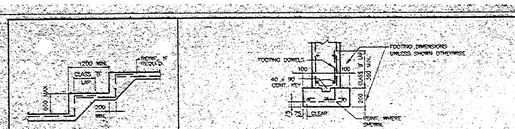
The Durham Catholic District School Board

SCALE	DRAWN
1 : 100 U/N	SKC
DATE	REV. NO.

TITLE
PLANS AND SECTIONS

DRAWING	REV.	PROJECT
S1		99104

PLOT M 1:100 – 99.05.04 – 99445CS1 – F



TYPICAL STEPPING OF FOOTINGS ON SOIL

15905

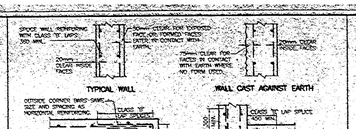
(1)

SIZE AND SPACING OF FOOTING DOWELS ARE SAME AS TOP VERTICAL BARS. PLACE DOWELS IN THE FRAME OF VERTICAL BARS ON THE INTERIOR FACE UNLESS SHOWN ON THE EXTERIOR OR ON BOTH FACES. IN CASE OF SHEAR WALLS OFFSET DOWELS TO MAIN VERTICAL REIN.PREVENT TO FACILITATE PLACING VERTICALS.

TYPICAL DETAILS OF FOOTING FOR CONCRETE WALLS

15004

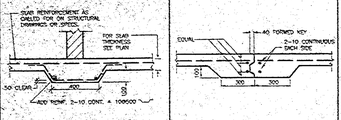
(2)



TYPICAL WALL DETAILS

15401

(3)



TYPICAL THICKENING IN SLAB ON GRADE UNDER MASONRY PARTITIONS

15901

(4)

TYPICAL CONSTRUCTION JOINT IN SLAB ON GRADE

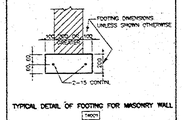
15102

(5)

TYPICAL SAWCUT CONTROL JOINT IN SLAB ON GRADE

15103

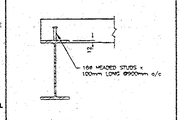
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TYPICAL DETAIL OF FOOTING FOR MASONRY WALL

15601

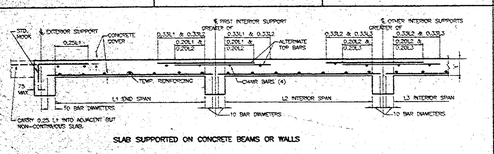
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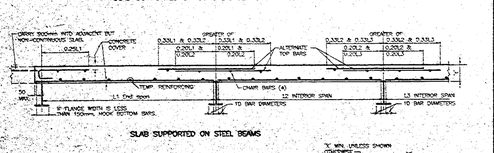
TYPICAL LATERAL SUPPORT FOR EDGE BEAMS WITH SLABS

15001

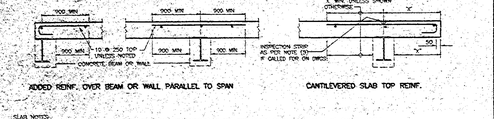
(8)



SLAB SUPPORTED ON CONCRETE BEAMS OR WALLS



SLAB SUPPORTED ON STEEL BEAMS



ADDED REINF. OVER BEAM OR WALL PARALLEL TO SPAN

CANTILEVERED SLAB TOP REINF.

SLAB NOTES:
1. UNLESS OTHERWISE SHOWN OR NOTED ON PLAN, REINFORCING IN ONE-WAY SLABS SHALL BE PLACED AS SHOWN ABOVE.
2. MAXIMUM BAR SPACING IS 3 X SLAB THICKNESS BUT NOT GREATER THAN 500 mm.
3. PROVIDE 2-15 M JAMBS 1mm LONG TOP AND BOTTOM AT OPENINGS IN SLABS OTHERWISE SHOWN.
4. PROVIDE BAR SUPPORTS AND ACCESSORIES TO THE REQUIREMENTS OF R.S.I.C. MANUAL.
5. PLACE CONTINUOUS 20 mm WIDE BEVELLED WOOD STRIP. REMOVE TO ALLOW REVIEW OF REINFORCING BEFORE REMOVING SHORING, FILL WITH MATCHING GROUT.

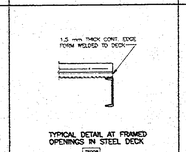
TEMPERATURE REINFORCING FOR SLABS IN MOATED AREAS : Asm= 0.002 x b x t MIN.											
100	120	140	150	160	180	200	220	240	250	280	300
109/600	109/500	109/350	109/350	109/310	109/270	154/450	154/450	154/410	154/400	154/350	154/350

NOTES:
A) BARS TO BE LAPPED USING CLASS 'B' LAP SPLICES.
B) MAXIMUM SPACING FOR TEMPERATURE BARS IS 3 X SLAB THICKNESS BUT NOT GREATER THAN 500 C/C.
C) PROVIDE 1-15 M NOSE AT EVERY TREAD OF CONCRETE STAIRS AND STEPS.
D) IN UNHEATED AREAS INCREASE TEMP. REINF. BY 20%.

TYPICAL ONE WAY SLABS

15011

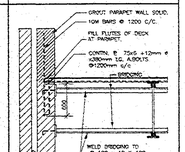
(12)



TYPICAL DETAIL AT FRAMED OPENINGS IN STEEL DECK

15008

(9)



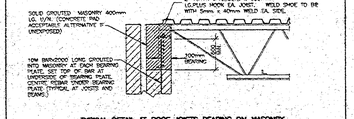
TYPICAL DETAIL OF ANCHORAGE OF BRIDGING AND STEEL DECK TO MASONRY

15305

(10)

MASONRY BEARING

PROVIDE SOLID FILLED BLOCK CENTRED UNDER JOIST ENDS, LENGTH OF SHOE PERPENDICULAR TO WALL SHALL BE 150mm MIN. WITH EQUAL BEARING BOTH SIDES OF WALL UNLESS OTHERWISE SHOWN ON DRG'S. FACTORED BEARING STRESS UNDER JOIST BEARING PLATE SHALL NOT EXCEED 1.65 MPa.



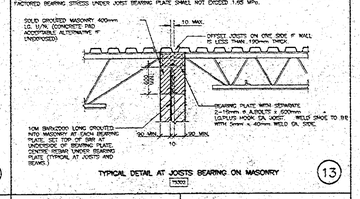
TYPICAL DETAIL AT ROOF JOISTS BEARING ON MASONRY

15301

(11)

MASONRY BEARING

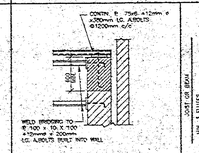
PROVIDE SOLID FILLED BLOCK CENTRED UNDER JOIST ENDS, LENGTH OF SHOE PERPENDICULAR TO WALL SHALL BE 150mm MIN. WITH EQUAL BEARING BOTH SIDES OF WALL UNLESS OTHERWISE SHOWN ON DRG'S. FACTORED BEARING STRESS UNDER JOIST BEARING PLATE SHALL NOT EXCEED 1.65 MPa.



TYPICAL DETAIL AT JOISTS BEARING ON MASONRY

15302

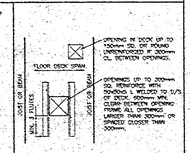
(13)



TYPICAL DETAIL OF ANCHORAGE OF BRIDGING AND STEEL DECK TO MASONRY

15305

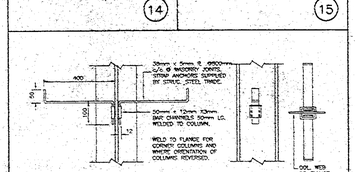
(14)



TYPICAL DETAIL AT FRAMED OPENINGS IN STEEL DECK

15014

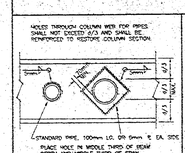
(15)



TYPICAL DETAIL FOR ANCHORAGE OF ABUTTING MASONRY WALLS TO STEEL COLUMNS

15101

(17)



TYPICAL REINFORCING AT HOLE IN BEAM FOR PIPES

15004

(18)

SHOE DEPTH -FLOOR & ROOF

JOIST SPAN		MIN. DEPTH OF SHOE IF NOT SHOWN ON STRUCTURAL DRAWINGS
UP TO	15 000	100 DEPTH MAY HAVE TO BE INCREASED TO INSURE THAT
15 000 TO	22 000	150 JOIST REACTION IS CENTERED ON BEARING AREA OR
22 000 TO	28 000	180 OVER CENTROID OF SUPPORTING MEMBERS.

STEEL BRIDGING -UNLESS OTHERWISE SHOWN ON DRAWINGS OR REQUIRED BY SPECIFIED FIRE RATED ASSEMBLY.

JOIST DEPTH	BRIDGING TYPE
UP TO 650	STRAIGHT TOP AND BOTTOM CHORD. MAXIMUM SPACING; COMPRESSION CHORD 170r(c). TENSION CHORD 240r(c). BUT NOT LESS THAN ONE ROW OF TOP AND BOTTOM BRIDGING FOR SPANS OF 3600mm OR MORE. MINIMUM SIZE: L-20x20x3 BUT L/r(b) ≯ 200 ANCHOR BRIDGING TO STRUCTURAL MEMBERS OR WALLS CAPABLE OF TAKING BRIDGING FORCES. IF THIS IS NOT PRACTICABLE, PROVIDE DIAGONAL AND HORIZONTAL BRIDGING IN COMBINATION NEAR ANCHORAGE POINTS.
OVER 650	X-BRIDGING ONLY, TERMINATING WITH V-BRIDGING, WHEN ANCHORED TO A WALL OR BEAM. X-BRIDGING SHALL BE IN A VERTICAL PLANE AND CONNECTED TO JOISTS AT PANEL POINTS ONLY. X-BRACING SHALL CONSIST OF INTERSECTING ANGLES CONNECTED TO EACH OTHER. MAXIMUM SPACING 170r(c), BUT NOT LESS THAN ONE ROW OF BRIDGING FOR SPANS OF 3900mm OR MORE. MINIMUM SIZE: L-30x30x3 BUT L/r(b) ≯ 200

r(c) = RADIUS OF GYRATION OF JOIST CHORD ABOUT IT'S AXIS IN THE PLANE OF THE WEB.

r(b) = LEAST RADIUS OF GYRATION OF BRIDGING MEMBER.

TIE JOISTS

TIE JOISTS, MARKED 'TJ' ON PLAN, PROVIDE LATERAL SUPPORT TO THE MEMBERS TO WHICH THEY ARE CONNECTED. TOP AND BOTTOM CHORDS SHALL BE CONSTRUCTED OF ANGLES OR ROLLED SECTIONS AND BOTH CHORDS SHALL BE CONNECTED TO THE SUPPORTS AT EACH END. L/r(c) OF THE BOTTOM CHORD BETWEEN ITS END AND THE FIRST INTERIOR LINE OF BOTTOM CHORD BRIDGING SHALL NOT EXCEED 200. BOTH CHORDS AND THEIR CONNECTIONS SHALL HAVE A CAPACITY OF 25 kN MINIMUM AXIAL COMPRESSION IN ADDITION TO THE PRIMARY CHORD LOADS UNLESS OTHERWISE NOTED.

WEB SYSTEM

ALL JOISTS OVER 650mm DEEP SHALL HAVE A WEB SYSTEM OF ALTERNATING VERTICAL AND DIAGONAL MEMBERS. ALONG ALL JOIST RUNS THE WEB MEMBERS SHALL LINE UP SUFFICIENTLY TO PERMIT MECHANICAL SERVICES TO BE THREADED THROUGH THE JOISTS TRANSVERSE TO THIER SPAN.

FIRE-RESISTANCE RATING

CONFORM TO THE STRUCTURAL REQUIREMENTS OF ANY FIRE RATED ASSEMBLY DESIGNS SPECIFIED FOR THIS PROJECT.

TYPICAL STEEL JOIST CONSTRUCTION

15206

(16)

DRAWING LEGEND

UNLESS OTHERWISE NOTED, DESIGN LOADS SHOWN ARE SPECIFIED (WORKING) LOADS. FOR POINT LOADS, IF ONLY ONE LOAD IS GIVEN, CONSIDER IT LIVE LOAD.

LL - LIVE LOAD (kN/m2)
DL - DEAD LOAD (kN/m2)
SDL - SUPERIMPOSED DL (EXCLUDING SELF-WEIGHT) (kN/m2)
P - POINT LOAD (kN)
W - FOR STEEL JOISTS IS DL + LL IN kN/m2
O - FOR STEEL JOISTS IS DL + LL IN kN/m
WS - FOR PRECAST CONCRETE IS SDL + LL IN kN/m2
Mf - FACTORED MOMENT (kN-m)
MTf - FACTORED TORSION (kN-m)
Vf - FACTORED SHEAR (kN)
Rf - FACTORED VERTICAL REACTION, (kN)
Af - FACTORED AXIAL LOAD (kN)
+ INDICATES TENSION, - INDICATES COMPRESSION
2/C1 - DESIGNED MEMBER MARK
2 - DISTANCE TO TOP OF BEAM FROM DATUM ELEVATION OF FLOOR OR ROOF
SDF - STEP DOWN FOOTING IN DIRECTION OF ARROWHEAD
HOLES THROUGH STEEL BEAMS
HOLES THROUGH CONCRETE BEAMS
TJ - TIE JOIST
DJ - DOUBLE JOIST
CF - STEEL MEMBER CONCRETE FIREPROOFED
H - CONCRETE HAUNCHED DOWN TO BOTTOM FLANGE OF BEAM
F - DENOTES COMPOSITE STEEL BEAM
FOR STEEL CONSTRUCTION C AND B DIMENSIONS ON PLAN ARE OFFSET DISTANCES FROM GRID LINE TO CENTRE LINE OF STEEL
COLUMN OR BEAM IN DIRECTION OF ARROWHEAD
FOR CONCRETE CONSTRUCTION C AN B DIMENSIONS ON PLAN ARE OFFSET DISTANCES FROM GRID LINE TO FACE OF CONCRETE
COLUMN OR BEAM IN DIRECTION OF ARROWHEAD
HM,H - REINFORCING BAR HOOKED BOTH ENDS, ONE END
RF - RIGID FRAME MEMBER
DCA - DRILLED CONCRETE ANCHORS
DMA - DRILLED MASONRY ANCHORS
ECR - EPOXY-COATED REINFORCING
ZRP - ZINC-RICH PAINTED STEEL
GALV - GALVANIZED STEEL
CA - COLUMN ABOVE
CAM - CAMBER
REV.CAM - REVERSE CAMBER
VSC - VERTICALLY SLOTTED CONNECTION TO ALLOW FOR DEFLECTION

X/Y/Z - X - SECTION NUMBER, Y - SECTION DRAWING, Z - INTERNAL REFERENCE

UNDERPINNING OF EXISTING STRUCTURE

1. CONCRETE UNDERPINNING SECTIONS ARE SHOWN ON PLAN THUS:
1. MASONRY UNDERPINNING SECTIONS ARE SHOWN ON PLAN THUS: USE CONCRETE BRICK AND TYPE 'S' MORTAR.
2. INSTALL ALL NO. 1 SECTIONS FIRST, AND THEN FOLLOW WITH ALL NO. 2 SECTIONS, ETC.
3. RAM-PACK 50 mm OF DRY PACK GROUT BETWEEN EXISTING FOUNDATION AND TOP OF UNDERPINNING, NO SOONER THAN 24 HOURS AFTER UNDERPINNING IS PLACED.
4. ALLOW 12 HOURS AFTER GROUTING BEFORE INSTALLATION OF FOLLOWING SECTIONS.
5. UNDERPINNING SHOWN IS FOR ASSUMED EXISTING CONDITIONS. REPORT ANY VARIATIONS TO THE (ARCHITECT) (STRUCTURAL ENGINEER) (CONSTRUCTION MANAGER) BEFORE PROCEEDING WITH THE WORK.
6. INSTALL AND AFTERWARDS REMOVE ALL TEMPORARY SHORING FOR THE SIDES OF THE EXCAVATION THAT IS REQUIRED TO ENSURE THE SAFETY OF THE EXISTING STRUCTURE AND THE EXCAVATION.
7. INSTALL AND AFTERWARDS REMOVE ALL TEMPORARY SHORING AND BRACING FOR THE EXISTING STRUCTURE THAT IS REQUIRED TO ENSURE THE SAFETY OF THE STRUCTURE DURING THE INSTALLATION OF THE UNDERPINNING.
8. ALL SHORING AND BRACING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR. PREPARE SHORING DRAWINGS SIGNED AND SEALED BY THE ENGINEER.
9. PREVENT LOSS OF MATERIAL FROM UNDERNEATH EXISTING STRUCTURE.
10. MAKE GOOD ALL EXISTING WORK DISTURBED BY THE UNDERPINNING OPERATIONS.

GENERAL NOTES

1. CHECK ALL DIMENSIONS ON STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL DRAWINGS. REPORT ANY INCONSISTENCIES BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE THESE DRAWINGS.
2. STRUCTURAL PLANS SHOW BEARING WALLS AND COLUMNS BELOW THE FLOOR OR ROOF STRUCTURE.
3. "I " SECTIONS ON THE DRAWINGS REFER TO TYPICAL DETAILS (ON DRAWING S-2). THEY SHOW STRUCTURAL INTENT RATHER THAN ACTUAL CONDITIONS FOR THIS PROJECT.
4. CARRY ALL FOOTINGS DOWN TO STRATA CAPABLE OF SUPPORTING THE DESIGN BEARING PRESSURES NOTED, BUT NOT LESS THAN 600 mm BELOW ORIGINAL GRADE, AND FOR EXTERIOR FOOTINGS NOT LESS THAN REQUIRED TO PROVIDE A MINIMUM OF 1200mm FROST PROTECTION.
5. PROTECT FOOTINGS, WALLS, SLABS-ON-GRADE AND ADJACENT SOIL AGAINST FREEZING AND FROST ACTION AT ALL TIMES DURING CONSTRUCTION.
6. THE LINE OF SLOPE BETWEEN ADJACENT EXCAVATIONS FOR FOOTINGS OR TRENCHES SHALL NOT EXCEED A RISE OF 7 IN A RUN OF 10.
7. FOOTING STEPS SHALL BE A MINIMUM OF 1200 mm APART, MAXIMUM STEP APPROXIMATELY 600 mm.
8. DO NOT BACKFILL AGAINST WALLS RETAINING EARTH UNTIL ELEMENTS PROVIDING LATERAL SUPPORT ARE COMPLETED. PLACE BACKFILL SIMULTANEOUSLY ON BOTH SIDES OF OTHER WALLS BELOW GRADE.
9. HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE WALLS ARE NOT PERMITTED, EXCEPT WHERE SHOWN ON THESE DRAWINGS. LEAVE CHASES AND POCKETS IN WALLS FOR SEATING OF SLABS AND BEAMS.
10. REINFORCE ALL SIDES OF OPENINGS IN CONCRETE WALLS. LENGTH OF BARS EQUAL TO OPENING DIMENSION PLUS 600 mm EACH SIDE. USE 2 - 15 FOR WALL THICKNESS UP TO 200 mm, AND 2 - 20 FOR WALLS OVER 200 mm.
11. REINFORCING FOR CONCRETE WALLS NOT COVERED BY SECTION OR PLAN SHALL BE AS FOLLOWS:

150 mm MAXIMUM WALL:	10 @ 300 HF + 10 @ 400 V IN CENTRE
200 mm MAXIMUM WALL:	10 @ 500 HEF + 10 @ 500 VEF
250 mm MAXIMUM WALL:	10 @ 400 HEF + 10 @ 300 VEF
300 mm MAXIMUM WALL:	10 @ 300 HEF + 10 @ 400 VEF
THICKER WALL:	15 @ 300 HEF + 15 @ 400 VEF

12. REINFORCING FOR CONCRETE CURBS NOT COVERED BY SECTION OR PLAN SHALL BE 10@400 DOWELS + 2-10M.
13. REINFORCING FOR CONCRETE BASES UNDER EQUIPMENT NOT COVERED BY SECTION OR PLAN SHALL BE 10@300 EA. WAY PLACED 50mm BELOW TOP OF CONCRETE.
14. UNLESS OTHERWISE SPECIFIED ON PLANS, PROVIDE TEMPERATURE REINFORCING FOR FRAMED ONE-WAY SLABS IN ACCORDANCE WITH TYPICAL DETAILS.
15. BARS MARKED CONTINUOUS SHALL BE TERMINATED IN HOOKS AND DEVELOPED BY CLASS B LAPS WHERE SPLICED.
16. PROVIDE CONTINUOUS GALVANIZED VERTICAL DOVETAIL ANCHOR SLOTS IN ALL CONCRETE SURFACES AT ABUTTING MASONRY WALLS AND AT 600 mm CENTRES IN ALL CONCRETE SURFACES WITH MASONRY VENEER.
17. STANDARD LINTELS:

PROVIDE STANDARD LINTELS OVER ALL OPENINGS IN MASONRY WALLS AND PARTITIONS AS FOLLOWS:

FOR WALLS REQUIRING MASONRY BLOCK LINTELS, FILL 200 mm DEEP LINTEL BLOCKS WITH 20 MPa CONCRETE REINFORCED WITH 1-10 TOP AND BOTTOM FOR EACH 100 mm OF WALL THICKNESS, OR PORTION THEREOF, FOR OPENINGS UP TO 1200 mm WIDE. BETWEEN 1200 mm AND 2000 mm, USE 1 - 15 AS ABOVE.

FOR WALLS REQUIRING STRUCTURAL STEEL LINTELS, USE 1L - 90 X 90 X 8 FOR EACH 100 mm OF WALL THICKNESS FOR OPENINGS UP TO 1200 mm WIDE. BETWEEN 1200 mm AND 2000 mm, USE 1L - 125 X 90 X 8 AS ABOVE. WELD OR BOLT MULTIPLE ANGLES TOGETHER.

PROVIDE MINIMUM 200 mm BEARING FOR BLOCK LINTELS AND 150mm BEARING FOR STEEL LINTELS. CHECK ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR OPENINGS REQUIRING STANDARD LINTELS WHICH ARE NOT NECESSARILY SHOWN ON THE STRUCTURAL DRAWINGS.

SPECIAL LINTELS:

PROVIDE SPECIAL LINTELS AS PER LINTEL SCHEDULE AT LOCATIONS GIVEN ON PLAN.

18. UNLESS OTHERWISE NOTED, FILL ALL CHANNEL BLOCK BOND BEAMS WITH 20 MPa CONCRETE REINFORCED WITH 1 - 10 TOP AND BOTTOM CONTINUOUS.
19. UNLESS OTHERWISE NOTED, ALL BEARING BEAMS SHALL HAVE A MINIMUM BEARING OF 200 mm, AND ALL CONCRETE SLABS SHALL HAVE A MINIMUM BEARING OF 100 mm. VOIDS IN MASONRY UNITS UNDER BEAMS AND JOISTS SHALL BE FILLED WITH GROUT FOR A MINIMUM VERTICAL DEPTH OF 600 mm AND A LENGTH OF 400 mm. UNLESS OTHERWISE NOTED, USE 25S SOLID BLOCKS FOR FILLING. DO NOT USE MORTAR TO FILL MASONRY UNITS.
20. MINIMUM CONCRETE COVER TO REINFORCING BARS, IN mm, UNLESS OTHERWISE NOTED:

FOOTINGS	75 TO BOTTOM BARS, 50 TO TOP BARS
PILES	50 TO TIES
CAISSONS	75 TO TIES
CAPS	75 TO BOTTOM BARS, 50 TO TOP BARS
GRADE BEAMS	50 TO STIRRUPS
COLUMNS	40 TO TIES
WALLS	40 TO SURFACES EXPOSED TO GROUND OR OUTSIDE. 20 TO PROTECTED SURFACES
SLABS	25
PARKING SLABS	40 TO TOP BARS AND 25 TO BOTTOM BARS
BEAMS	40 TO STIRRUPS

MATERIAL AND DESIGN DATA

1. STRUCTURAL DESIGN IS IN ACCORDANCE WITH ONTARIO BUILDING CODE 1997, INCLUDING AMENDMENTS.
2. ALL NEW FOOTINGS SHALL BEAR ON UNDISTURBED SOIL CAPABLE OF SUSTAINING 150 kPa. BEARING CAPACITY MUST BE APPROVED IN WRITING, PRIOR TO PLACING NEW FOOTINGS, BY A GEOTECHNICAL ENGINEER RETAINED BY THE CONTRACTOR. THE GEOTECHNICAL ENGINEER MUST CARRY LIABILITY INSURANCE TO MIN. REQUIRED BY PEO.
3. CONCRETE SPECIFIED COMPRESSIVE STRENGTH, f'c, IS 20 MPa EXCEPT FOR:
   - FRAMED SLABS - 25 MPa
   - EXTERIOR SLABS AND SIDEWALKS CLASS'A' - 35 MPa
4. REINFORCING STEEL: CAN/CSA G30.18M – GRADE 400R
5. STRUCTURAL STEEL: CAN/CSA G40.21M
   - WIDE FLANGES: 350 W
   - HSS SECTIONS: 350W (CLASS H)
   - ANCHOR BOLTS: 260W
   - ALL OTHER STEEL: 300W
6. STRUCTURAL MASONRY:
   - HOLLOW BLOCK: CSA A165.1 – H/15/A/O
   - SOLID BLOCK: CSA A165.1 – S/15/A/O
   - CONCRETE BRICK: CSA A165.2 – TYPE I–25
   - CLAY BRICK: CAN/CSA A82.71M – GRADE SW
   - MORTAR: CSA A179M – TYPE S
   - GROUT FOR BLOCK CORES: CSA A179M – COARSE GROUT 1-3-2 CEMENT:SAND:PEA-STONE BY VOLUME WITH 200 mm SLUMP
   - ASSUMED MASONRY COMPRESSIVE STRENGTH, f'm, fS:
     HOLLOW BLOCK – 9.8 MPa
     GROUTED HOLLOW BLOCK – 7.5 MPa
     SOLID BLOCK – 7.5 MPa
     SOLID BRICK – 8.8 MPa
   - ASSUMED FLEXURAL TENSILE BOND STRENGTH AT MORTAR JOINTS IS:
     CONCRETE BRICK & BLOCK – 0.30 MPa
     GROUTED HOLLOW BLOCK – 0.30 MPa
     CLAY BRICK – 0.7 MPa
8. DESIGN LOADS FOR BUILDING STRUCTURE:
   - GRAVITY LOADS AS SHOWN ON PLANS
   - GROUND SNOW LOAD AND ASSOCIATED RAIN LOAD: Ss = 1.4 kN/m2 Sr = 0.4 kN/m2
   - 24 HOUR RAINFALL: 80 mm
   - WIND PRESSURE: q Ce Cg Cb = 0.52x1.0x1.3 = 0.68 kN/m2
   - EARTHQUAKE: v.S.I.F.U/R = 0.05x3.0x1.3x1.0x0.5/1.0 = 0.117

THIS DRAWING IS NOT TO BE SCALED.
PRIOR TO COMMENCING ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB AND REPORT ANY DISCREPANCIES TO THE CONSULTANT. CONSTRUCTION MUST CONFORM TO ALL APPLICABLE CODES AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
THE CONTRACTOR SHALL REVIEW AND APPROVE ALL SHOP DRAWINGS BEFORE SUBMISSION TO THE CONSULTANT. SUCH REVIEW AND APPROVAL SHALL INDICATE THAT THE CONTRACTOR HAS DETERMINED AND VERIFIED ALL FIELD MEASUREMENTS, FIELD CONSTRUCTION CRITERIA, MATERIALS, CATALOG NUMBERS AND SIMILAR DATA AND THAT HE HAS CHECKED AND COORDINATED EACH SHOP DRAWING WITH THE REQUIREMENTS OF THE WORK AND OF THE CONTRACT DOCUMENTS.
THE CONTRACTOR WORKING FROM DRAWINGS NOT SPECIFICALLY MARKED "FOR CONSTRUCTION" MUST ASSUME FULL RESPONSIBILITY AND BEAR COSTS FOR ANY CORRECTIONS OF ERRORS RESULTING FROM HIS WORK.
THIS DRAWING AS AN INSTRUMENT OF SERVICE IS PROVIDED BY AND IS THE PROPERTY OF CONSULTANT. ALL RIGHTS RESERVED.
THE CONTRACTOR SHALL HOLD AND INDEMNIFY THE CONSULTANT FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.
THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNTIL COUNTERSIGNED.

REVISIONS

No.	Date	Description
1	MAY 06/99	ISSUED FOR CLIENT REVIEW
2	MAY 27/99	ISSUED FOR TENDER
3	DEC 20/99	ISSUED FOR BUILDING PERMIT

REGISTERED PROFESSIONAL ENGINEER 99X445C S.SACHARAN PROVINCE OF ONTARIO

KEY PLAN

PROJECT

A
S
M
E
D
B
C

Halsall
HALSALL ASSOCIATES LIMITED
CONSULTING ENGINEERS
2200-2300 YONGE ST., P.O. BOX 2285
TORONTO ONTARIO CANADA M4P 1E4
PHONE: (416) 487-2255 FAX: (416) 487-9786
EMAIL: INFO@HALSALL.COM

SC-0065

PROJECT
ST. CHRISTOPHER CATHOLIC ELEMENTARY SCHOOL
OSHAWA, ONTARIO

The Durham Catholic District School Board

SCALE	DRAWN
1 : 100 U/N	SKC
DATE	REV. NO.

TITLE
TYPICAL DETAILS AND GENERAL NOTES

DRAWING	REV.	PROJECT
S2		9910

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